IWH Research Alert March 31, 2017

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Drake C, Haslam R, and Haslam C. Facilitators and barriers to the protection and promotion of the health and safety of older workers. Policy and Practice in Health and Safety. 2017; [epub ahead of print]. http://dx.doi.org/10.1080/14773996.2017.1289453

Dutta A, Chan F, Kundu MM, Kaya C, Brooks J, Sanchez J, and Tansey TN. Assessing vocational rehabilitation engagement of people with disabilities: a factor-analytic approach. Rehabilitation Counseling Bulletin. 2016; 60(3):145-154.

http://dx.doi.org/10.1177/0034355215626698

Fan X and Straube S. Reporting on work-related low back pain: data sources, discrepancies and the art of discovering truths. Pain Management. 2016; 6(6):553-559.

http://dx.doi.org/10.2217/pmt.16.8 [open access]

Abstract: Work-related pain is unique in the pain context as it is, in theory, tied to one or more workplace activities and is therefore preventable. Back pain is a leading cause of lost workplace productivity, absence from work and reduced quality of life. Aggregate estimates of the work-related contribution to the overall burden of back pain vary, which may reflect incomplete reporting, inconsistency in data collection and coding between studies and jurisdictions, or, alternatively, genuine differences between occupational groups and countries. It is therefore important for researchers, policy analysts and program development personnel in the fields of pain medicine and occupational medicine to have a thorough understanding of the appropriate use and inherent limitations of the data sources which report on this topic

Fasanya BK and Dada EA. Workplace violence and safety issues in long-term medical care facilities: nurses' perspectives. Safety and Health at Work. 2016; 7(2):97-101.

http://dx.doi.org/10.1016/j.shaw.2015.11.002 [open access]

Abstract: BACKGROUND: Workplace violence (WPV) is becoming an issue that needs immediate attention in the United States, especially during this period as more states are adopting the "stand your ground laws to promote worker protection." This study was conducted to investigate how WPV has contributed to an unsafe environment for nurses and nursing assistants who work in long-term medical care facilities. METHODS: A structure questionnaire was used to collect data for the study. Three facilities were sampled and 80 nurses and certified nursing assistants participated in the study. Ninety-two percent (n = 74) were female and 8% (n = 6) were male. Approximately 62% were black or African American, approximately 33% were Caucasians, and only 2% were from other ethnicities. RESULTS: We found that 65% of the participants had experienced WPV while 41% believed that management shows little or no concern for their safety. Approximately 23% of respondents believed that reporting supervisor's WPV act is an unsafe action. In addition, 22% of those who reported that they have experienced WPV believed that the work environment is not safe to perform their duties. This significant difference in perception of workplace safety between those who had experienced WPV and those who had not was significant (t = 3.95, df = 158, p < 0.0001). CONCLUSION: WPV is an epidemic problem that affects all health-care professionals. The findings of this study could help longterm medical care facilities' management identify the areas to focus on mitigating, controlling, and/or eliminating incidents of WPV

Fjaer EL, Balaj M, Stornes P, Todd A, McNamara CL, and Eikemo TA. Exploring the differences in general practitioner and health care specialist utilization according to education, occupation, income and social networks across Europe: findings from the European social survey (2014) special module on the social determinants of health. European Journal of Public Health. 2017; 27(suppl 1):73-81.

http://dx.doi.org/10.1093/eurpub/ckw255

Abstract: Background: : Low socioeconomic position (SEP) tends to be linked to higher use of general practitioners (GPs), while the use of health care specialists is more common in higher SEPs. Despite extensive literature in this area, previous studies have, however, only studied health care use by income or education. The aim of this study is, therefore, to examine inequalities in GP and health care specialist use by four social markers that may be linked to health care utilization (educational level, occupational status, level of financial strain and size and frequency of social networks) across 20 European countries and Israel. : Logistic regression models were employed using data from the seventh round of the European Social Survey; this study focused upon people aged 25-75 years, across 21 countries. Health care utilization was measured according to self-reported use of GP or specialist care within 12 months. Analyses tested four

social markers: income (financial strain), occupational status, education and social networks. : We observed a cross-national tendency that countries with higher or equal probability of GP utilization by lower SEP groups had a more consistent probability of specialist use among high SEP groups. Moreover, countries with inequalities in GP use in favour of high SEP groups had comparable levels of inequalities in specialist care utilization. This was the case for three social markers (education, occupational class and social networks), while the pattern was less pronounced for income (financial strain). : There are significant inequalities associated with GP and specialist health care use across Europe-with higher SEP groups more likely to use health care specialists, compared with lower SEP groups. In the context of health care specialist use, education and occupation appear to be particularly important factors

Jegan NR, Brugger M, Viniol A, Strauch K, Barth J, Baum E, Leonhardt C, and Becker A. Psychological risk and protective factors for disability in chronic low back pain - a longitudinal analysis in primary care. BMC Musculoskeletal Disorders. 2017; 18(1):114.

http://dx.doi.org/10.1186/s12891-017-1482-8 [open access]

Abstract: BACKGROUND: Utilizing psychological resources when dealing with chronic low back pain might aid the prevention of disability. The observational study at hand examined the longitudinal impact of resilience and coping resources on disability in addition to established risk factors. METHODS: Four hundred eighty four patients with chronic low back pain (>3 months) were recruited in primary care practices and followed up for one year. Resilience, coping, depression, somatization, pain and demographic variables were measured at baseline. At follow-up (participation rate 89%), data on disability was collected. We first calculated bivariate correlations of all the predictors with each other and with follow-up disability. We then used a multiple regression to evaluate the impact of all the predictors on disability together. RESULTS: More than half of the followed up sample showed a high degree of disability at baseline (53.7%) and had suffered for more than 10 years from pain (50.4%). Besides gender all of the predictors were bivariately associated with follow-up disability. However in the main analysis (multiple regression), disability at follow up was only predicted by baseline disability, age and somatization. There was no relationship between resilience and disability, nor between coping resources and disability. CONCLUSIONS: Although it is known that there are cross-sectional relationships between resilience/coping resources and disability we were not able to replicate it in the multiple regression. This can have several reasons: a) the majority of patients in our sample were much more disabled and suffered for a longer time than in other studies. Therefore our results might be limited to this specific population and resilience and coping resources might still have a protective influence in acute or subacute populations. b) We used a rather broad operationalization of resilience. There is emerging evidence that focusing on more concrete sub facets like (pain) self-efficacy and acceptance might be more

beneficial. TRIAL REGISTRATION: German Clinical Trial Register, DRKS00003123 (June 28th 2011)

Mann D, Honeycutt T, Bailey MS, and O'Neill J. Using administrative data to explore the employment and benefit receipt outcomes of vocational rehabilitation applicants years after program exit. Journal of Vocational Rehabilitation. 2017; 46(2):159-176.

http://dx.doi.org/10.3233/JVR-160852

Mattila-Holappa P, Ervasti J, Joensuu M, Ahola K, Pentti J, Oksanen T, Vahtera J, Kivimaki M, and Virtanen M. Do predictors of return to work and recurrence of work disability due to mental disorders vary by age? A cohort study. Scandinavian Journal of Public Health. 2017; 45(2):178-184. http://dx.doi.org/10.1177/1403494816686467

Abstract: BACKGROUND: The extent to which predictors of return to work (RTW) and recurrence of work disability episodes vary by age group is not well understood. METHODS: We examined the associations of sociodemographic and clinical factors with RTW and recurrence after mental-disorder-related work disability episodes in a cohort of 10,496 Finnish public sector employees. Disability records were derived from national disability registers between 2005 and 2011. Effect modification by age was examined in age groups of 21-34, 35-50 and >50 years. RESULTS: A total of 16,551 disability episodes from mental disorders were recorded. The likelihood of RTW was elevated in age group 21-34 (hazard ratio (HR) = 1.36, 95% confidence interval (CI) = 1.28-1.46) and 35-50 years (HR = 1.22, 95% CI = 1.18-1.26) compared to age group >50 years. The risk of a recurrent episode of work disability was higher in age groups >50 (HR = 1.29, 95% CI = 1.09-1.52) and 35-50 years (HR = 1.20, 95% CI = 1.03-1.41) compared to the youngest age group. Employees with depressive disorders were less likely to RTW than employees with neurotic, stress-related and somatoform disorders, and this difference increased with age. Low education was associated with increased risk of recurrent work disability episode in age groups of 50 years or younger, while no such association was observed in age group >50 years. CONCLUSIONS: The importance of depressive symptoms over neurotic, stressrelated and somatoform disorders as predictors of delayed RTW increases with age, whereas educational differences in the recurrence of an episode diminish by age

McNamara CL, Toch-Marquardt M, Balaj M, Reibling N, Eikemo TA, and Bambra C. Occupational inequalities in self-rated health and non-communicable diseases in different regions of Europe: findings from the European Social Survey (2014) special module on the social determinants of health. European Journal of Public Health. 2017; 27(suppl 1):27-33. http://dx.doi.org/10.1093/eurpub/ckw223

Abstract: Background: Socioeconomic inequalities in the prevalence of noncommunicable diseases (NCDs) are evident across European populations. Several previous studies have addressed the question of whether occupational inequalities in health differ across European regions. It is uncertain however, the degree to which occupational inequalities in NCDs are similar or dissimilar across different European regions. Using 2014 European Social Survey data from 20 countries, this article examines occupational inequalities in poor self-rated health (SRH) and 14 self-reported NCDs separately for women and men, by European region: heart/circulatory problems, high blood pressure, back pain, arm/hand pain, foot/leg pain, allergies, breathing problems, stomach/digestion problems, skin conditions, diabetes, severe headaches, cancer, obesity and depression. Age-controlled adjusted risk ratios were calculated and separately compared a working class and intermediate occupational group with a salariat group. Working class Europeans appear to have the highest risk of reporting poor SRH and a number of NCDs. We find inequalities in some NCDS to be the largest in the Northern region, suggesting further evidence of a Nordic paradox. Like some previous work, we did not find larger inequalities in poor SRH in the Central/East region. However, we did find the largest inequalities in this region for some NCDs. Our results do not align completely with previous work which finds smaller health inequalities in Southern Europe. This work provides a first look at occupational inequalities across a range of NCDs for European men and women by region. Future work is needed to identify the underlying determinants behind regional differences

Moberg LL, Lunde LK, Koch M, Tveter AT, and Veiersted KB. Association between VO2max, handgrip strength, and musculoskeletal pain among construction and health care workers. BMC Public Health. 2017; 17(1):272. http://dx.doi.org/10.1186/s12889-017-4173-3 [open access] Abstract: BACKGROUND: Construction and health care workers have a high prevalence of musculoskeletal disorders, and they are assumed to have physically demanding jobs. Profession- and gender-specific associations between individual capacity and musculoskeletal pain have not been sufficiently investigated. The main aim of this study was to examine the association between individual capacity (maximal oxygen uptake (VO2max) and handgrip strength) and musculoskeletal pain among construction and health care workers. METHODS: This cross-sectional study examined 137 construction and health care workers (58 women and 79 men) with a mean age of 41.8 years (standard deviation 12). Aerobic capacity was indirectly assessed by the Astrand cycle test, and strength was assessed by a handgrip test. Musculoskeletal pain was described by total pain, divided into neck, shoulder, and low back pain, during the last 12 months, and it was dichotomized in below or above 30 days. Logistic regression was used to analyse the associations between VO2max, strength. and musculoskeletal pain in the total study sample and separately for construction and health care workers. Analyses were adjusted for age, gender, body mass index (BMI), and selected mechanical and psychosocial factors. RESULTS: Every second participant (51.8%) reported pain in either neck, shoulders or low back for more than 30 days during the last 12 months. Among the health care workers, a small but significant association was found between a

high VO2max, high handgrip strength, and a low level of musculoskeletal pain. No association was found for the construction workers. CONCLUSIONS: An association between VO2max, handgrip strength, and musculoskeletal pain was found for health care workers but not for construction workers. These results indicate that activities promoting individual capacity may reduce musculoskeletal pain for health care workers

Moore GM, Redman S, Turner T, and Haines M. Rapid reviews in health policy: a study of intended use in the New South Wales' Evidence Check programme. Evidence & Policy. 2016; 12(4):505-519. http://dx.doi.org/10.1332/174426415X14446635524057

Oliver S and Dickson K. Policy-relevant systematic reviews to strengthen health systems: models and mechanisms to support their production. Evidence & Policy. 2016; 12(2):235-259.

http://dx.doi.org/10.1332/174426415X14399963605641

Oversveen E, Rydland HT, Bambra C, and Eikemo TA. Rethinking the relationship between socio-economic status and health: making the case for sociological theory in health inequality research. Scandinavian Journal of Public Health. 2017; 45(2):103-112.

http://dx.doi.org/10.1177/1403494816686711

Abstract: AIM: The aim of this study is to analyse previous explanations of social inequality in health and argue for a closer integration of sociological theory into future empirical research. METHODS: We examine cultural-behavioural, materialist, psychosocial and life-course approaches, in addition to fundamental cause theory. Giddens' structuration theory and a neo-materialist approach, inspired by Bruno Latour, Gilles Deleuze and Felix Guattari, are proposed as ways of rethinking the causal relationship between socio-economic status and health. CONCLUSIONS: Much of the empirical research on health inequalities has tended to rely on explanations with a static and unidirectional view of the association between socio-economic status and health, assuming a unidirectional causal relationship between largely static categories. We argue for the use of sociological theory to develop more dynamic models that enhance the understanding of the complex pathways and mechanisms linking social structures to health

Peace C, Mabin V, and Cordery C. Due diligence: a panacea for health and safety risk governance? Policy and Practice in Health and Safety. 2017; [epub ahead of print].

http://dx.doi.org/10.1080/14773996.2016.1275497

Pollock M, Fernandes RM, and Hartling L. Evaluation of AMSTAR to assess the methodological quality of systematic reviews in overviews of reviews of healthcare interventions. BMC Medical Research Methodology. 2017; 17(1):48.

http://dx.doi.org/10.1186/s12874-017-0325-5 [open access]

Abstract: BACKGROUND: Overviews of reviews (overviews) compile information from multiple systematic reviews (SRs) to provide a single synthesis of relevant evidence for decision-making. It is recommended that authors assess and report the methodological quality of SRs in overviews-for example, using A MeaSurement Tool to Assess systematic Reviews (AMSTAR). Currently, there is variation in whether and how overview authors assess and report SR quality, and limited guidance is available. Our objectives were to: examine methodological considerations involved in using AMSTAR to assess the quality of Cochrane and non-Cochrane SRs in overviews of healthcare interventions; identify challenges (and develop potential decision rules) when using AMSTAR in overviews; and examine the potential impact of considering methodological quality when making inclusion decisions in overviews. METHODS: We selected seven overviews of healthcare interventions and included all SRs meeting each overview's inclusion criteria. For each SR, two reviewers independently conducted AMSTAR assessments with consensus and discussed challenges encountered. We also examined the correlation between AMSTAR assessments and SR results/conclusions. RESULTS: Ninety-five SRs were included (30 Cochrane, 65 non-Cochrane). Mean AMSTAR assessments (9.6/11 vs. 5.5/11; p < 0.001) and inter-rater reliability (AC1 statistic: 0.84 vs. 0.69; "almost perfect" vs. "substantial" using the Landis & Koch criteria) were higher for Cochrane compared to non-Cochrane SRs. Four challenges were identified when applying AMSTAR in overviews: the scope of the SRs and overviews often differed; SRs examining similar topics sometimes made different methodological decisions; reporting of non-Cochrane SRs was sometimes poor; and some non-Cochrane SRs included other SRs as well as primary studies. Decision rules were developed to address each challenge. We found no evidence that AMSTAR assessments were correlated with SR results/conclusions. CONCLUSIONS: Results indicate that the AMSTAR tool can be used successfully in overviews that include Cochrane and non-Cochrane SRs, though decision rules may be useful to circumvent common challenges. Findings support existing recommendations that quality assessments of SRs in overviews be conducted independently, in duplicate, with a process for consensus. Results also suggest that using methodological quality to guide inclusion decisions (e.g., to exclude poorly conducted and reported SRs) may not introduce bias into the overview process

Reid G, Connolly J, Halliday W, Love AM, Higgins M, and MacGregor A. Minding the gap: the barriers and facilitators of getting evidence into policy when using a knowledge-brokering approach. Evidence & Policy. 2017; 13(1):29-38.

http://dx.doi.org/10.1332/174426416X14526131924179

Sundstrup E, Jakobsen MD, Thorsen SV, and Andersen LL. Regular use of medication for musculoskeletal pain and risk of long-term sickness absence: a prospective cohort study among the general working

population. European Journal of Pain. 2017; 21(2):366-373. http://dx.doi.org/10.1002/ejp.932

Abstract: BACKGROUND: The aim was to determine the prospective association between use of pain medication - due to musculoskeletal pain in the low back, neck/shoulder and hand/wrist - and long-term sickness absence. METHODS: Cox-regression analysis was performed to estimate the prospective association between regular use of pain medication and long-term sickness absence (LTSA; at least 6 consecutive weeks) among 9,544 employees from the general working population (Danish Work Environment Cohort Study 2010) and free from LTSA during 2009-2010. The fully adjusted model was controlled for age, gender, body mass index, smoking, leisure physical activity, job group, physical activity at work, psychosocial work environment, pain intensity, mental health and chronic disease. RESULTS: In 2010, the proportion of regular pain medication users due to musculoskeletal disorders was 20.8%: 13.4% as over-the-counter (i.e. nonprescription) and 7.4% as doctor prescribed. In the fully adjusted model, regular use of over-the-counter [HR 1.44 (95% CI 1.13-1.83)] and doctor prescribed (HR 2.18 (95% CI 1.67-2.86)) pain medication were prospectively associated with LTSA. CONCLUSIONS: Regular use of pain medication due to musculoskeletal pain is prospectively associated with LTSA even when adjusted for pain intensity. This study suggests that use of pain medication can be an important factor to be aware of in the prevention of sickness absence. Thus, regular use of pain medication - and not solely the intensity of pain - can be an early indicator that musculoskeletal pain can lead to serious consequences such as long-term sickness absence. SIGNIFICANCE: Use of medication due to musculoskeletal pain is prospectively associated with long-term sickness absence even when adjusted for pain intensity. Use of pain medication can be a red flag to be aware of in the prevention of sickness absence

Vancea M and Utzet M. How unemployment and precarious employment affect the health of young people: a scoping study on social determinants. Scandinavian Journal of Public Health. 2017; 45(1):73-84. http://dx.doi.org/10.1177/1403494816679555

Abstract: BACKGROUND: The impact of unemployment and precarious employment on the health of young people is not well understood. However, according to social causation, higher socio-economic positions and thus better working conditions are beneficial to health in general. We tried to synthesize the results of studies that test this hypothesis in the case of young people. METHODS: We conducted a scoping study mapping all the academic articles published in the period 2006-2016 in Europe. The literature was searched in PubMed/Medline, Science Direct, Web of Science and Scopus. RESULTS: We identified 1770 studies, of which only 46 met the inclusion criteria. There are more studies that focus on the relationship between unemployment and health than between precarious employment and health (28 and 16, respectively). The vast majority of the studies (44) found support for the social causation hypothesis, the most common health outcomes being mental health disorders,

health risk behaviour, poor quality of life and occupational injuries. The causal mechanisms behind this association relied mainly on the life-course perspective, the breadwinner model, and the lack of social and economic benefits provided by standard employment. CONCLUSIONS: There is evidence that young people are especially vulnerable to health problems when unemployed or working in precarious conditions. Active labour market and training programmes, inclusive social security measures, improved working conditions and targeted health programmes are important for addressing this vulnerability. Further research should strive to enhance the causal model by including a gender perspective, longitudinal data, more indicators on precariousness and third factor explanations