workers with occupational injury were 54% more likely to suffer serious psychological distress than those with non-occupational injury (PR: 1.54, 95% CI: 1.04-2.28). Workers with head and neck injury had the highest prevalence of serious psychological distress (prevalence=7.71, for those with occupational injury and 6.17 with non-occupational injury), followed by workers with scrape/ bruise/ burn/ bite (prevalence=6.32 for those with occupational injury). Workers reporting occupational injury were two and half times more likely to have serious psychological distress (PR: 2.41, 95% CI: 1.82-3.20) compared to those without injury after controlling for covariates. In addition, workers with occupational injury were 32% more likely to suffer serious psychological distress compared to those with non-occupational injury in the unadjusted model, but the association was not statistically significance (PR: 1.32, 95% CI: 0.95-1.85). Among workers who visited the emergency room, those reporting occupational injury were 78% more likely to suffer serious psychological distress than those with non-occupational injury after controlling for covariates.

Discussion: The prevalence of serious psychological distress varied by injury status with the highest being among workers reporting occupational injury. We found that the workers reporting occupational injury were significantly more likely to have serious psychological distress than those without injury, but not more than those with non-occupational injury.

P05
Title: The Relationship of Occupational Injury and Use of Mental Health Care

Authors: María Andrée López Gómez, Jessica Williams, Karen Hopcia, Dean Hashimoto, Leslie Boden, Erika Sabbath, Glorian Sorensen

Background: Healthcare industry workers suffer from high rates of musculoskeletal injury. In 2015, nursing assistants had among the highest incidence rates of musculoskeletal injuries (171.0 cases per 10,000 full-time workers). Occupational injuries have been studied using workers´ compensation claims, using outcomes such as medical costs and days away from work. Nevertheless, there are only a few studies assessing comorbidities related to occupational injury. Studies of depressive symptoms and injury have established a strong link in both directions: depressive symptoms have been found to be a risk factor for unintentional injury, and similarly, injured workers have been found to suffer high depressive symptoms levels after injury. Longitudinal studies assessing this relationship have focused on mental health as a precursor or a consequence of injury but few have covered the period before and after injury. The aim of this study was to examine the likelihood of workers with an occupational injury to have a mental health claim paid through employer-sponsored health insurance before and after injury.

Methods: Data from the Boston Hospital Workers Health Study (BHWHS) were used to assess the relationship of mental health care utilization and occupational injury. The BHWHS uses integrated administrative databases from two large academic hospitals in the Boston area. We used a matched cohort study design to assess the relationship of mental health and occupational injury in patient-care workers. Each injured worker (n=784) in 2012 to 2014 was randomly matched with replacement with three workers who did not report an injury at the time of injury of the case. The matching variables were job title (nurse or aide) and age. Medical claims for mental health care related to depression, anxiety, substance abuse and eating disorders were extracted for both injured and uninjured workers who were enrolled in their employer´s sponsored health insurance. Observation of mental health care utilization occurred three months before and after the date of injury for injured workers and their uninjured counterparts. Using logistic regression models, we examined the association of occupational injury and use of mental health services before and after injury.

Results: The sample consisted of 3,117 workers out of which 784 workers reported an OSHA recordable injury. Overall, 170 (5.5%) and 164 (5.3%) workers had at least one visit to mental health care services before and after injury respectively. A higher proportion of injured workers (8.6%, n= 67) had at least one mental health visit before injury compared to uninjured workers (4.4%, n=103) and the proportions were similar after injury. The odds ratio for use of mental health services before injury for injured workers was 2.01 compared with uninjured workers. The odds ratio for injured workers for seeking mental health services post-injury controlling for pre-injury visits was 1.50 (95% Confidence interval, 0.92-2.48) compared with uninjured, but the relationship was not statistically significant. Analogous analyses segregated by type of injury (musculoskeletal vs. others) and days away from work showed similar results with

higher odds ratios for injuries that required days away from work (OR: 2.31, 95% confidence interval: 1.06-5.06).

Discussion: Injured workers were more likely to seek mental health care before injury than uninjured workers, but these differences dissolved for post-injury visits when controlling for pre-injury visits suggesting that ill-mental health is more of a precursor than a consequence of occupational injury. Results point to a potential venue of injury prevention by focusing on promoting mental health, an area that workers' compensation rarely covers.

P06
Title: Shift Work and Sleep Quality Among Police Officers: Is Age a Factor?
Authors: John Violanti, Anna Mnatsakanova, Desta Fekedulegn, Ja K. (Jack) Gu, Emily Jenkins, Michael Andrew

Background: According to the U.S. Bureau of Labor Statistics about 40% of people over the age of 55 were working or actively looking for work in 2014. That number is expected to increase fastest for people ages 65-74 and 75 + through 2024. Aging is one of the most cited individual factors for decreased shiftwork tolerance and sleep problems. This may be a critical problem in first responder occupations that require quick decision making and alertness. Significant associations of night shift with elevated prevalence of poor sleep quality among police officers have been reported. The aim of the present cross-sectional study was to assess whether age modified the association between shiftwork and sleep quality in police officers.

Methods: A total of 363 police officers with complete data from the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) study were included (2004-2009). The Pittsburgh Sleep Quality Index (PSQI) questionnaire was used to assess sleep quality. A PSQI global score of >5 was defined as 'poor' sleep quality. Electronic payroll work history records of each officer during the past month was used to define dominant shift (day, afternoon, or night) as the shift the officer spent the highest percent of his/her workhours. Analyses of variance/ covariance were used to examine mean global sleep score across shiftwork categories. Analyses were stratified by age using median age (40 years) as cut point to create the two strata.

Results: The mean age of officers was 41 years; 28% female. Shiftwork was significantly associated with PSQI global score. Associations were adjusted for age, sex, and race/ ethnicity. The officers who worked night shift had significantly worse sleep quality compared to those who worked day shift [Mean (SE): 7.48(0.4) vs. 5.90(0.3), respectively, with p-value = 0.004]. When stratified by median age, the associations remained significant only among younger officers (≤40 years): [Day Shift: 5.50 (0.4), Afternoon Shift: 6.49 (0.4), Night Shift: 7.71 (0.4), p-value =0.001]. The adjusted mean global score was significantly higher among young officers who worked night shift compared to those who worked day or afternoon shifts (p-value=0.0003, and 0.044, respectively).

Discussion: Results of this study indicate significant associations of sleep quality with shiftwork among younger officers (< 40 years). Factors such as increased social activity, family responsibilities, or second jobs may account for poorer sleep among younger officers. Additionally, older officers with higher seniority tend to seek positions which involve less shift work, particularly night shifts. Further work is needed to examine social-psychological factors affecting sleep quality among police officers in order to create a healthier shift work environment in policing.

P07
Title: Injuries and Fatalities Among Meter Readers, 1995-2016
Authors: Megan Leonhard, Tiffani Fordyce, Ximena Vergara, Eric Bauman

Background: The Electric Power Research Institute (EPRI) established the Occupational Health and Safety Database (OHSD) in 1999 to surveil workplace injury and illness among workers in the electric power industry. Meter readers have the second highest injury rate in the OHSD and constitute a high injury risk group.

Methods: Injury information was obtained from the EPRI OHSD which contains 2,118,459 employee-years of follow-up and 64,903 observed lost time and recordable injury/ illness events for years 1995–2016. Injury rates and full-time equivalents lost (FTEs) were calculated. Injuries among meter readers were examined by injury type, body region of injury, age, mechanism of injury, and year groupings. Tests for trend were performed by year groupings.

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