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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 ( $\leq 40$  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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