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216 Evaluation of Work-Related Unintentional Injuries after Hurricane Sandy

Monday, June 15, 2015: 10:00 AM-10:30 AM
 Exhibit Hall A, Hynes Convention Center

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BACKGROUND: Work-related injuries as a result of natural disasters are a serious public health concern and Hurricane Sandy was distinct in geographic and population impact.

METHODS: Emergency discharge (ED) and hospital discharge (HD) data among those 18-65 years old with a principal discharge diagnosis of unintentional injury were obtained from the New Jersey (NJ) Department of Health. Discharges were grouped by hospital county and categorized as having high, medium, or low impact from Sandy based on data from FEMA and other sources. Discharges were considered work-related if the primary payer was Workers Compensation or if they included codes suggesting a work location. We utilized Poisson regression to compare the risk of work-related injury during different periods over the year following Sandy landfall (10/29/12-10/29/13) with corresponding periods from the three previous years (2009-2011). Subgroup analyses evaluated risks among those at generally highest risk (men in high impact counties), by diagnosis category (ICD-9), and by mechanism of injury (E-Code).

RESULTS: There were 9,757 work-related injuries in the first quarter post-Sandy in NJ, 8.6% of all injuries among those 18-65. Compared to previous years, the week immediately following Sandy (when much of the state had limited electrical power) showed a significant decline in total work-related injuries (RR=0.85(95% CI: 0.78, 0.92)) and statewide there was no overall increase in the year post-Sandy. However, high impact counties showed an elevated risk of work-related injuries in the first 9 months post-Sandy, especially among men (Quarter1: RR=1.09(95% CI: 1.04, 1.14), Quarter 2: 1.04 (1.00, 1.09), Quarter 3: RR=1.10 (1.06, 1.15), and Quarter 4: RR=1.00 (0.96, 1.04)). For mechanism of injury, the greatest excesses occurred in the summer of 2013 (Quarter 3, May-July) in fall; cut/pierce; struck by/against; and overexertion injuries.

CONCLUSIONS: The rate of work-related injuries in Sandy's high impact area increased after the hurricane. Based on timing and type of injury, the greatest impact in work-related injury may have been associated with rebuilding and recovery rather than initial response. Using hospital data to measure work-related injuries after a natural disaster may under-estimate work-related injuries and cannot control for other changes over the timeframe of the study.

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