

Regular site visits and communication (with ergonomists, unit managers and staff) provided knowledge of changes in administrative policies, as well as hospital- and unit-level differences in program implementation, adoption, and promotion.

Results: Compared to the medical center, the community hospital had overall higher rates of patient-handling injuries [adjusted RR 1.9; 95% CI (1.6–2.2)] and lost-workday injuries [adjusted RR 2.9; 95% CI (2.0–4.3)]. Restricted-workday injuries, however, were lower at the community hospital [adjusted RR 0.3; 95% CI (0.2–0.5)].

At the medical center, adjusted rates of patient-handling injuries decreased from 3.8/100 full-time equivalents (FTEs) in 1997 to 1.8/100 FTEs in 2004. At the community hospital, adjusted injury rates rose sharply from 2000 to 2002 [maximum 2.4; 95% CI (0.9–6.1)], followed by a sharp decline after 2002, but prior to the policy implementation/equipment use. Nonpatient-handling injury rates did not change significantly over the 9-year period at either hospital. Observed trends likely reflect concurrent occupational medicine practice and return-to-work policy initiatives.

Conclusion: These experiences underscore the importance of observational methods in intervention evaluation.

### **C2.3**

#### ***Title: Evaluation of a Comprehensive Slip, Trip, and Fall Prevention Program for Hospital Employees***

Authors: **Bell J**, Collins J, Wolf L, Grönqvist R, Chiou S, Chang W-R, Sorock G, Courtney T, Lombardi D, Evanoff B

Introduction: In 2006, the Bureau of Labor Statistics (BLS) reported the incidence rate of lost-workday injuries from slips, trips, and falls (STFs) on the same level in hospitals was 35.8 per 10,000 FTEs, which was 60% greater than the average rate for all other private industries combined (22.4 per 10,000 FTEs). The objective of this ten-year (1996–2005) longitudinal study was to describe STF injury events and evaluate the effectiveness of a comprehensive STF prevention program in three acute care hospitals.

Methods: The comprehensive prevention program included analysis of injury records to identify common causes of STFs, on-site hazard assessments, changes to housekeeping procedures and products, introduction of STF preventive products and procedures, general

awareness campaigns, programs for external ice and snow removal, flooring changes, and slip-resistant footwear for certain employee subgroups.

Results: The hospitals' total STF workers' compensation claims rate declined by 58% from the preintervention (1996–1999) rate of 1.66 claims per 100 FTEs to the post-intervention (2003–2005) time period rate of 0.76 claims per 100 FTEs (adjusted rate ratio = 0.42, 95% CI: 0.33–0.54). STFs due to liquid contamination (water; fluid; slippery, greasy, and slick spots) were the most common cause (24%) of STF claims. Food services, transport/EMS, and housekeeping staff were at highest risk of an STF claim in the hospital environment. Nursing and office administrative staff generated the largest numbers of STF claims.

Discussion: STF injury events in hospitals have a multitude of causes, and the work conditions in hospitals are diverse. This research provides evidence that implementation of a broad-scale prevention program can significantly reduce STF injury claims.

### **C2.4**

#### ***Title: Evaluation of the Impact of Workers' Compensation Sponsored Interventions on Musculoskeletal Injuries in Nursing Homes***

Authors: **Park RM**, Bushnell PT, Bailer AJ, Stayner LT

Introduction: Nursing home workers experience among the highest rates of musculoskeletal injury, mostly to the back. In 2006, private nursing care facilities had a rate of back injuries causing days away from work that was 3.9 times the national average. Efforts have been made to redesign patient-handling tasks, and engineering solutions have been implemented such as adjustable-height electric beds, powered lifting and transfer devices, and redesign of facilities.

Methods: The Ohio Bureau of Workers' Compensation (BWC) sponsored a safety and health intervention program that included training, consultation, and grants up to \$40,000 to cover 80% of the cost of new equipment purchases. This study evaluated these interventions by merging BWC data on interventions, injury claims, and employer payroll for all Ohio nursing homes during 1995–2004.

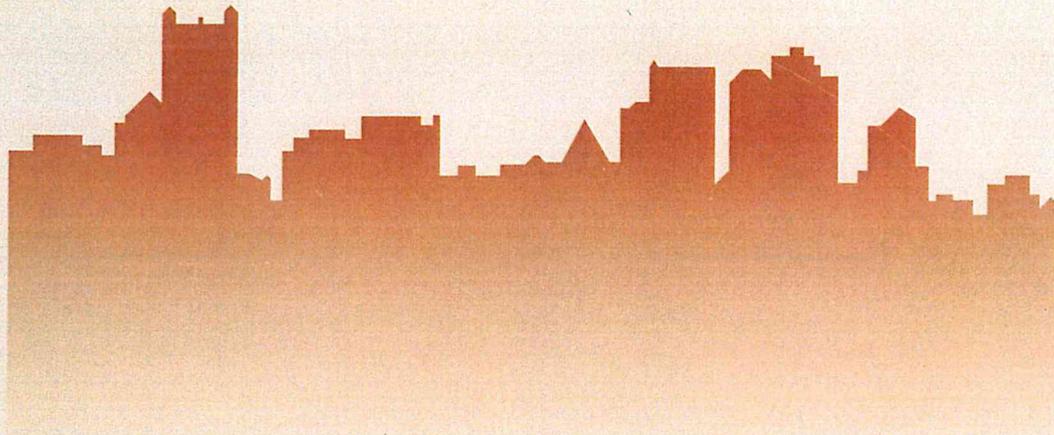
Results: A \$1,000 per worker equipment purchase resulted in a 53% reduction in back injury rate. Assuming an equipment life of 10 years, this translates to a \$1,933 reduction in claim costs per worker

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