

drivers who survived a CVC. These data suggest that driver distraction/inattention and fatigue as well as other collision factors may be increased risk factors for a fatal CVC. Multivariate analyses including calculation of odds ratios will be performed on these data to measure the effect of these variables alone or combined on fatal vs. nonfatal CVCs.

## Session: D4.0

### Title: Workplace Violence I

Moderator: Nancy Romano

#### D4.1

**Title: Occupational Violence: Environmental Risk Factors**

Authors: Gerberich SG, Church TR, McGovern PM, Hansen HE, Nachreiner NM, Geisser MS, Ryan A, Mongin SJ, Watt GD, Jurek A

Occupational violence has been identified as a major public health problem; certain occupations, including nursing, appear at increased risk. This study was designed to identify the magnitude of, and specific risk factors for, work-related violence among Minnesota Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) - populations accessible through licensing databases.

A comprehensive survey was sent to a random sample (n=6,300) of nurses to determine eligibility and occupational violence (physical [PV] or non-physical [NPV]) experience in the past year (74% response). A nested case (n=475) - control (n=1425) study examined the relation between environmental exposures and PV (75% response). As many as four follow-up mailings were sent after the initial mailings to maximize response.

Univariate and multiple logistic regression analyses were performed to describe the distributions of individual exposures, and to estimate odds ratios and 95% confidence intervals for individual exposures on the outcome of PV. Directed acyclic graphs based on the causal model were used to identify potential confounders. Horvitz-Thompson reweighting assisted adjustment for unknown eligibility and non-response.

Respective rates of PV and NPV per 100 persons per year and 95% confidence intervals (CI) were 13.2 (12.2-14.3) and 38.8 (37.4-40.4). Key findings (ORs and CIs) from case-control analyses included increased risks for: working in long-term care facilities (2.6; 1.9-3.6) and in emergency (4.2; 1.3-12.8) and psychiatric/behavioral (2.0; 1.05-3.7) departments; and in environments with illumination less than "bright as daylight" (2.1; 1.6-2.8). Decreased risks were identified for: working with young populations (0.4; 0.2-0.99); carrying cell phones/personal portable alarms (0.3; 0.1-0.7); and working in three types of facilities other than long-term care and hospital inpatient: home/public health agencies (0.2; 0.1-0.4); outpatient facilities (0.4; 0.2-0.8);

clinics/health provider offices (0.2; 0.1-.5).

Occupational violence is an important problem in this population. Identified risk and protective factors provide a basis for development of intervention efforts.

#### D4.2

**Title: The NIOSH Workplace Violence Research and Prevention Initiative**

Authors: Jenkins EL, Hartley D, Bowyer ME, Anderson KR

Homicide accounted for 639 (11%) of the occupational injury deaths in the U.S. in 2001; these numbers exclude the 2,886 workers killed in the September 11 terrorist attacks. In addition, there were an estimated 1.7 million nonfatal workplace victimizations each year from 1993 to 1999. NIOSH has been conducting research on workplace violence issues since its first publication of national data on workplace homicide in 1988. In 2002, NIOSH was charged by the U.S. Congress to "develop an intramural and extramural prevention research program that will target all aspects of workplace violence."

Building upon existing work, NIOSH has developed a number of efforts to enhance existing knowledge regarding the nature and magnitude of workplace violence, risk factors, and prevention strategies. Among these is analysis of data on nonfatal victimizations that include, for the first time, detailed information on industry and occupation of the victim as well as specific information on the relationship of the victim to the offender from the National Crime Victimization Survey (NCVS). The collection of these improved data was funded by NIOSH and is now part of the ongoing NCVS. Additionally, a Workplace Risk Supplement was appended to the NCVS during January through June of 2002. These data will allow description of workplace violence policies and training as well as perceptions of safety and security for a cross-section of U.S. workers. NIOSH has also launched a survey of workers treated in hospital emergency departments for a work-related assault injury.

Five new research grants have been funded addressing a range of high risk settings. A Federal Interagency Task Force that includes participation from the Departments of Labor, Justice, the Office of Personnel Management, the U.S. Secret Service, and others has been formed to provide a forum for coordinating research and prevention activities at the Federal level.

# NOIRS 2003 ABSTRACTS

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