energized vehicle frame. The authors contend that widespread use of a simple device that alarms when a vehicle frame becomes energized could have prevented many of these fatalities.

This presentation describes the results to date of a project to measure voltage differences and currents flowing on the vehicle frame as a result of accidental overhead line contact in cranes and dump-bed trucks. A practical, low-cost concept to detect the contact of mobile equipment with high voltage lines and warn those nearby is presented.

H3.5 Development of the Hazard Recognition Training Module for Construction, Maintenance, and Repair Work Activities—Barrett EA, Rethi LL

Recent studies have concluded that 39 to 65 percent of all injuries to miners occur when they perform construction, maintenance, and repair type work activities in the conduct of their jobs. The number of injuries is particularly high at surface aggregate operations; however, the problem exists for all locations and commodities. To address this issue, an interactive, 3-D slides training module was developed for teaching such workers to recognize hazards in the workplace. Twelve groups of miners, a total of 339 persons, from mining operations throughout the United States were trained using the exercise. The subjects were tested before and after the training intervention to determine if the objective of the instruction was achieved. Test results indicated that over 70 percent of them showed improvement in their test scores. Following the posttest, subjects completed a seven-item Likert-scale, self-reporting measure consisting of questions relating to exercise validity and utility of the training program. More than 93 percent of the miners indicated that they learned something new from the training exercise and they would use this information to work more safely.

Session: H4.0
Title: Traumatic Injury Studies
Category: Injury Surveillance
Moderator(s): Letitia Davis

H4.1 National Estimates of Traumatic Occupational Injury in the United States—Warner M, Fingerhut LA, Barnes P

Introduction: The National Health Interview Survey (NHIS) has been used to make national estimates of non-fatal occupational injury in the United States since its inception in 1957. The NHIS questionnaire was extensively redesigned in 1997 including changes to: 1) probe question and inclusion criteria for injuries; 2) recall period; 3) severity threshold; and 4) phasing and placement of the questions. Methods for identifying occupational injuries and the working population from the NHIS are presented.

Methods: Data from the US civilian non-institutionalized population were collected using Computer Assisted Personal Interview (CAPI) from an adult member of the sample household about all medically attended injuries occurring in the previous three-month period to any member of the family. Occupational injuries were identified by selecting the categories 'paid work', 'unpaid work', and 'working around the house or yard' from the responses to the question about what the person was doing at the time of the injury. Edited verbatim responses to the questions of how the injury occurred were also reviewed. Traumatic occupational injury episode data are presented by demographics, external cause, diagnosis, and circumstances surrounding the episode.

Results: In the United States in 1997, there were an estimated 6.27 million traumatic injury episodes requiring medical attention occurring while persons were engaged in paid work. A further .96 million episodes occurred while persons were engaged in unpaid work and 3.36 while persons were working around their house or yard.

Discussion: The redesigned NHIS is a useful source of information about medically attended non fatal traumatic occupational injuries in the United States because occupational injury experiences are reported without regard to compensation. The NHIS also includes information about injuries occurring in non traditional workplaces. The strengths and limitations of the NHIS redesign and methods for identifying occupational injuries and the working population are discussed.

H4.2 Surveillance for Nonfatal Occupational Injuries and Illnesses Treated in Hospital Emergency Departments-United States, 1998—Jackson LL

The National Electronic Injury Surveillance System (NEISS) is used by the National Institute for Occupational Safety and Health for surveillance of nonfatal occupational injuries treated in U.S. hospital emergency departments (EDs). In 1998, NEISS captured work-related injuries and illnesses treated in a 67 hospital ED sample based on a national stratified probability sample of all U. S. hospitals with a 24-hr emergency department and a minimum of six hospital beds. We made national injury/illness estimates based on statistical weighting for each NEISS case in the sample. We determined injury/illness rate estimates by using 12-month averages for full-time employees (FTE = 2,000 hrs/yr) from the 1998 Bureau of Labor Statistics Current Population Survey.

An estimated 3.6 million occupational injuries and illnesses were treated nationally in EDs. The occupational injury/illness rate for 1998 was 2.8 per 100 FTE. The injury/illness rate for men (3.4 per 100 FTE) was almost twice the rate for women (1.8 per 100 FTE). The rate was highest for the younger-aged workers with the injury/illness rate decreasing with worker age.

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ABSTRACTS

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