

## NOIRS 2000 Abstracts

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A substantial number of contractors had high quality eye injury prevention programs. Almost all contractors required workers to use eye protection either all the time or for specific tasks. Some companies reported strict enforcement mechanisms for these requirements, while other companies relied primarily on frequent reminders to workers. Many contractors mentioned that motivating employees to wear eye protection was their biggest challenge, but others reported successes from supplying comfortable, high quality, stylish safety glasses, including such features as anti-fog coatings, shaded lenses, and lanyards.

Almost all contractors provided eye protection training. Training generally covered eye injury hazards and prevention, but a minority of training programs focused on selecting and fitting appropriate eyewear. For about two-thirds of the contractors, the "standard" eye protection was safety glasses with side shields; the remainder relied on unshielded safety glasses. For instance, many eye injuries occur during overhead work; top and side shields are needed to prevent these injuries. Thus, a key issue for prevention is whether the type of eye protection worn is sufficiently protective for the task being performed.

It was somewhat surprising to find that contractors with a more comprehensive eye injury prevention program did not have a lower rate of eye injury. However, high quality eye injury programs and higher injury rates may identify companies which work under high-risk conditions. To see if prevention programs work, company specific rates must be evaluated before and after implementation of eye injury prevention programs.

**PS.11 Work-related Acute Eye Injuries Presenting to the West Virginia University Hospital Emergency Department**—Inman CJ, Jackson LL, Helmkamp JC, Islam SS, Furbee PM

**Background:** Over 600,000 work-related eye injuries occur annually. This number may be low because clinical recognition and surveillance mechanisms to accurately characterize occupational injuries are lacking.

**Methods:** To develop a better understanding of occupational eye injury circumstances and under-reporting of work-related injuries, we examined all emergency department (ED) visits for an eye injury presenting at West Virginia University Hospital Emergency Department during 1996. Through the emergency department-based injury surveillance system (EDBISS), we identified 556 eye injury visits. Medical charts were reviewed for injury circumstances and work-relatedness—defined as any injury or illness incurred while doing work for compensation, all agricultural production activities, and while doing work as a volunteer for an organized group.

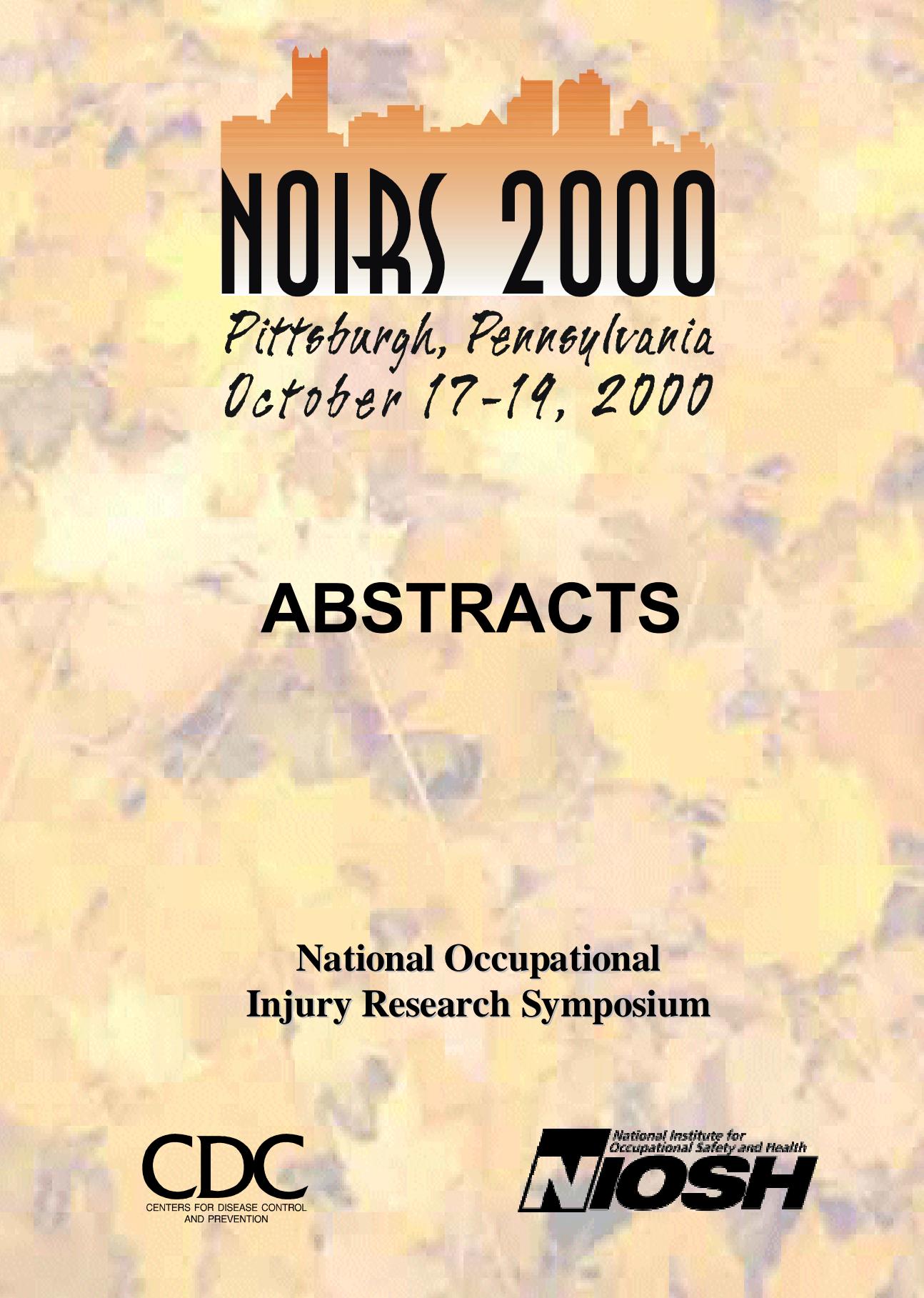
**Results:** On the basis of chart review, we identified 326 first visits for patients 18 years and older with an eye injury: 98 were work-related, 184 were non-work related, and 44 were possibly work-related. Based on admissions information, EDBISS indicated that 90 visits were work-related of the 98 cases identified from chart review (Kappa=90%). Since there were other misclassifications regarding work-relatedness and possible work-relatedness this kappa value may be an over estimate. From chart review, 69 cases filed West Virginia Workers Compensation claims. Of these, 54 (78%) were matched with the West Virginia Workers Compensation database which captures all work-related injuries in the state except voluntary organizations and churches. We are exploring reasons for the low match rate by comparing the matched and unmatched cases with regards to severity of injury and occupation.

**Conclusions:** Injury surveillance that relies on compensation or insurance providers may under-report occupational injuries as seen in this example. Injury prevention would benefit from improved recording of work-related details by ED staff

**PS.12 Occupational Homicide and Non-facility Based Workers**—Johnson RM, Loomis D, Wolf S, Gregory E

About 12% of all fatal occupational injuries are homicides (1,2), homicide is recognized as a problem in occupational safety (3-7). Non-facility based [NFB] workers, specifically taxi-cab drivers, have high rates of homicide relative to other workers (3,5,8). The risk of homicide for other NFB workers is less clearly understood than the risk for taxi-cab drivers. However, because such workers are often exposed to a number of risk factors for occupational homicide (e.g., exchange of money with the public, working late-night or early-morning hours, working in community settings, working alone), it is important to examine their risk for homicide.

The data for this poster come from Dana Loomis's occupational homicide in North Carolina case-control study (n=152). The goals of these analyses are to (1) evaluate the risk of workplace homicide for NFB workplaces compared to other workplaces, and to (2) evaluate factors potentially associated with NFB workplace homicide (e.g., such as typical duties, hours worked, training, protocol for robbery situations). To address the first goal, we will compare the homicide rates among the two categories of workplaces. For the second goal, we will examine exposure to risk and protective factors for occupational homicide restricting analyses to the 69 workplaces with NFB workers. Case workplaces (n for NFB workplaces=23) include those in which a worker was killed while on duty, and were identified through the North Carolina medical examiner system. Control workplaces (n for NFB workplaces=46) were sampled randomly from state businesses and agencies contained in "American Business Lists". We administered a questionnaire to collect detailed information on workplaces, the demographic



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## ABSTRACTS

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