



 GUEST EDITORIALS

The relevance of occupational injury research

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This supplement to *Injury Prevention* focuses on occupational injury prevention research. It comprises papers that were presented at the National Occupational Injury Research Symposium (NOIRS) 2000 held in Pittsburgh, Pennsylvania, 17–19 October 2000.

Injury prevention researchers and practitioners, whether focused on work related injuries or injuries in non-occupational settings, will find this collection of papers informative and relevant. Research on occupational injuries has relevance in other settings for several reasons: common methods, risks, and prevention strategies; overlap between work and non-work tasks and environments; and the advantage of work settings as natural laboratories for evaluation of interventions and technology transfer. Also, we share in the multifactorial nature of injuries that requires using interdisciplinary approaches to prevention.

Although occupational injuries and their prevention are sometimes distinct from injuries in other settings, there also are many common elements in research methods, risk factors, and prevention strategies. New research methods for risk factors, such as the case-crossover study design described in this issue, have advantages for many injury researchers (see Sorock *et al*).

Studies that elucidate risk factors and which develop and evaluate effective intervention strategies in one setting can often be applied in others. For example, motor vehicle injuries are the leading cause of work and non-work deaths in the United States. Interventions that were developed to prevent injuries to the general public, such as seat belts and air bags, also prevent injuries and deaths among those for whom the vehicle is the workplace. (In fact they may be even more effective in this context because their use may be more enforceable.) Conversely, prevention efforts developed specifically for truck drivers and other transportation workers, such as back-up sensors and collision

warning systems, may eventually find applicability to the motoring public. Technology similar to the autodeploying ROPS for tractors, described in this issue (see Powers *et al*), is already being used in some passenger cars.

In some environments, occupational and non-occupational injuries and their risks are difficult to distinguish, such as on farms where families both live and work in a hazardous environment (see Reed *et al*); in schools where students and teachers alike are exposed to the growing risk of intentional injuries; and in healthcare settings where there are similar risks for workers and patients (see Washenitz *et al*). These in particular are areas where we can and must learn from each other and work together towards prevention.

The scientific evaluation of interventions to determine and refine their effectiveness is the area of prevention research that is in the greatest need of more attention and effort (see Stout and Linn and Pless). As a relatively controlled environment, the workplace can provide an ideal setting, a living laboratory, for intervention evaluation studies (see Becker *et al*). Similarly, workplaces offer an opportunity for widespread implementation of prevention technologies and strategies, and for studying and improving dissemination and technology transfer strategies (see Prezant *et al*).

Finally, injuries in all settings and among all populations, are complex events with multiple contributors that require the application, knowledge, skills, and efforts of many disciplines to understand and prevent them. Regardless of our interest in a specific population or environment, or our expertise in a specific discipline (epidemiology, social behavioral sciences, engineering, etc) we have much to learn from each other.

There is no single journal dedicated to occupational injury research. Studies in this field are found in an array of journals focused on a variety of topics and disciplines, including public

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health, occupational medicine, safety engineering, and epidemiology (see Pless). Identifying and assembling the literature relevant to an occupational injury research effort is thus often difficult and tedious.

Similarly, there is no national or international organization or annual meeting specific to occupational injury research and prevention that provides a forum for the exchange of new knowledge and ideas in this field. To address this gap, the National Institute for Occupational Safety and Health sponsored the first NOIRS in 1997. Despite our recognition of the need for such a forum, we underestimated the magnitude of interest. Nearly 200 researchers and practitioners from a wide variety of disciplines submitted abstracts for presentations. Registration eventually had to be closed as the number of interested participants outgrew the size of the facility. Paper sessions were overflowing, and breaks were too short to quench the thirst for discussion between participants who knew each other's published works but had not previously had an opportunity for direct exchange of current efforts and ideas. Feedback was overwhelmingly positive, and reinforced the need for similar, future opportunities.

In October 2000, the second NOIRS was held in Pittsburgh, Pennsylvania. The American Society of Safety Engineers and the Liberty

Mutual Research Center for Safety and Health joined in partnership with the National Institute for Occupational Safety and Health to sponsor this symposium. Learning from the previous symposium, it was held at a larger, more accessible location, plenary sessions were limited in order to maximize research paper sessions, breaks were lengthened to provide more opportunity for interaction, and the poster presentation session was combined with a social event to provide more opportunities for informal creative exchanges.

The result was a gathering of more than 350 occupational injury researchers and practitioners from many disciplines and organizations. This "national" symposium also drew participants from 14 countries to absorb and discuss 130 research papers and posters.

The papers included here represent a small sample of those presented at NOIRS 2000. The selection from this impressive pool of presentations was a difficult task, resulting in an array of current research in this field. This issue brings together a collection of papers, from state based prevention efforts to international comparisons of fatal work injuries; from surveillance to risk factor identification methods; and from engineering controls to intervention and evaluation. This issue highlights the state-of-the-art of occupational injury research.