6th WORLD CONFERENCE

Injury Prevention and Control

6e CONFÉRENCE MONDIALE

Prévention et contrôle des traumatismes

ABSTRACTS • RÉSUMÉS

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ABSTRACTS • RÉSUMÉS

INJURIES, SUICIDE AND VIOLENCE:
Building Knowledge, Policies
and Practices to Promote a Safer World

TRAUMATISMES, SUICIDE ET VIOLENCE :
Construire un savoir, des politiques
et des pratiques pour promouvoir
un monde en sécurité

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PREVENTING WORKER DEATHS AND INJURIES IN ROADWAY CONSTRUCTION: A SYNTHESIS OF INDUSTRY PRACTICE, INJURY SURVEILLANCE DATA, AND CURRENT RESEARCH

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PROBLEM UNDER STUDY: Workers in highway work zones are exposed to risk of injury from the movement of construction vehicles and equipment within work zones, as well as from passing motorist traffic. Data from the Census of Fatal Occupational Injuries (CFOI) indicate that of 841 work-related fatalities in the USA' highway construction industry between 1992 and 1998, 465 (55%) were vehicle- or equipment-related incidents that occurred in a work zone.

OBJECTIVES: The research primary objective is to identify measures for preventing worker injuries from traffic vehicles and construction equipment on road construction projects. The presentation will discuss the process of integrating research with industry expertise, summarize research results, and provide a sampling of injury prevention recommendations.

METHOD OR APPROACH: In 1997, NIOSH organized a series of industry stakeholder forums to discuss construction safety research gaps. A key area of concern expressed by stakeholders in the highway construction industry was the need to prevent injuries related to vehicles and equipment. NIOSH undertook a comprehensive review of scientific literature, fatality and injury data, and current safety research. NIOSH also convened a workshop attended by a broad range of stakeholders in work zone safety. Information shared by workshop participants, along with NIOSH review of literature and data, served as the starting point for identifying prevention measures.

RESULTS: Based on synthesis of current research on highway work zone safety with input provided by the participants in the NIOSH workshop, NIOSH published a document that

includes measures that contractors, contracting agencies, policy makers, manufacturers, and others can use to reduce occupational injuries in highway work zones. In 318 of the 465 vehicle- and equipment-related fatalities within work zones, a worker on foot was struck by a vehicle. Victims of these events were as likely to be struck by a construction vehicle (154 fatalities) as by a passing traffic vehicle (152 fatalities). Incidents involving backing vehicles were prominent among the 154 worker-on-foot fatalities that occurred within the confines of a work zone (51%). Key prevention measures presented in the document, "Building Safer Work Zones," include:

1. The need for all workers in road construction to wear high-visibility apparel;
2. The need for expansion of OSHA regulations to more fully address hazards related to machinery used in road construction;
3. The need for regulations and consensus standards to address safety hazards faced by workers within the work space;
4. The need to develop safety guidelines for night construction work; and
5. The need to balance requirements for workspace and traffic space during construction.

NIOSH is implementing research recommendations to evaluate the effectiveness of different strategies for reducing exposure of workers on foot to blind areas around construction vehicles and equipment.

CONCLUSION: Researchers can leverage their ability to influence industry practice by involving a broad cross-section of industry stakeholders throughout the research process. Labour and management can provide valuable insights into processes, provide access to study sites, and assess the impediments to implementation of different prevention strategies. Stakeholders can also serve as early adopters and supporters of implementation of results.

LIMITS: Integrating research results with industry experience requires extensive review of draft manuscripts by many individuals who are not normally familiar with academic review. Premature release of study findings is a real risk. Researchers must be cognizant of and carefully balance the competing agendas of non-research partners.

CONTRIBUTION OF THE PROJECT TO THE FIELD: Results were distributed throughout the construction industry in the USA. Specific recommendations are being considered by state regulatory agencies for incorporation into state regulations, by trade associations and labour unions for inclusion in training programs, and by contractors for implementation in company safety policies and construction practices. Though regulations and construction practices may vary, the prevention measures outlined in the NIOSH document are a starting point for developing a similar set of prevention measures in other countries.