

only one of three cases with completed OSHA investigations was the demolition company cited for lack of a predemolition engineering survey.

*Conclusions:* Cutting and weakening steel-mill structures in order to cause collapse is a high-risk activity that exposes construction workers to a crushing hazard. Predemolition engineering surveys may not be an adequate preventive intervention.

#### **Overexertion Injuries Among Construction Workers: Research Needs and Priorities**

Hsiao H, Stanevich RL, Centers for Disease Control and Prevention, United States (C07)

*Objectives:* To identify high-risk overexertion injury occupations in the construction industry.

*Methods:* The Bureau of Labor Statistics' Supplementary Data System and occupational employment data obtained through U.S. Department of Labor (1990) and U.S. Department of Commerce (1990) were used as the primary information sources for this investigation. A frequency-weighted occupation-specific rating technique was developed to identify occupations with high risk for sustaining an overexertion injury within the construction industry.

*Results:* Ten occupations have been identified as high-potential-risk groups. They are construction laborers, carpenters, plumbers, drywall installers, roofers, electricians, miscellaneous construction trades workers, structural metal workers, heating and air conditioning mechanics, and carpet installers. These 10 occupations represent an estimated 37.6% of the construction industry workforce and 74.2% of the overexertion injuries. In general, the leading overexertion exposure was lifting objects.

The leading injured body part was the back. The injury sources varied among occupations.

*Conclusions:* Occupation-specific task and activity investigation and analyses for each of the 10 occupations should be the next area of research. Subsequent ergonomic studies should involve laboratory testing of alternative assistant devices, work procedures, or both for the identified stressful tasks. Intervention studies should then apply the laboratory findings within the selected occupations to evaluate their utility and effectiveness in the workplace for reducing musculoskeletal injuries to construction workers.

#### **Occupational Injuries in Manufacturing and Construction Industries (M&CI) in St. Kitts-Nevis from 1982-1991**

Richards LN, Department of Labour, St. Kitts (C08)

*Objectives:* To examine the causative nature and similarities of occupational injuries in M&CI with a view to avert recurrence.

*Methods:* The study was designed to investigate all related accidents and injuries recurring from 1982-1991 in M&CI, estimating further potential injuries based on type of machinery and level of technology employed.

*Results:* The number of recurring injuries to workmen in M&CI varied between 93-95% from 1982-1991. Injuries vary from contusions to amputations, with an average of two deaths per year caused by transport accidents. These injury rates are a result of the low level of technology used in St. Kitts-Nevis when compared with more developed countries.

*Conclusions:* The implementation of Occupational Health and Safety (OHS) policy, the

*Abstracts*

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# **ABSTRACTS**

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