

Over the past two decades, we have found that there are two major problem areas that together account for the majority of firefighter deaths — heart attacks and motor vehicle crashes. Examination of available medical data has consistently shown that four out of every five firefighters who died of heart attacks had had prior heart attacks, bypass surgery and/or severe, detectable levels of arteriosclerotic heart disease. When looking at the motor vehicle crashes, we find that the majority of victims are volunteer firefighters, a large share of whom were responding to emergencies in their own vehicles.

And finally, the trends over the past 20 years will be reviewed, highlighting the types of injuries that have virtually disappeared as protective equipment and training have improved but also looking at less encouraging trends in fatality rates per million structure fires over a span of time when the number of structure fires has been declining.

### ***C2.2 Fire Fatality Investigations: The NIOSH and IAFF Programs—Duffy RM***

When a fire fighter makes the ultimate sacrifice, we usually say that he or she died in the line of duty. The fact of the matter is that fire fighters don't die peacefully in the line of duty, they are killed—often abruptly and violently. All too often, the investigations into a fire fighter's death were incomplete, inaccurate, or inconclusive. In those cases, we never able to find out what, if anything went wrong. Rarely did anyone take responsibility for a fire fighter's death.

It has been the position of the 235,000 members of the International Association of Fire Fighters that fire fighter's death must receive a thorough and unbiased investigation. After extensive lobbying by the IAFF, President Clinton, in 1998, directed the National Institute for Occupational Health and Safety (NIOSH) to investigate all line-of-duty fire fighter fatalities. Since the inception of this program, the NIOSH Fire Fighter Fatality Investigation and Prevention Program has detected several significant hazards to fire fighters and has made a significant change in protecting the health and safety of our members.

Whether the fault for the loss lies with inadequate resources and staffing, poor incident command, bad communications, lack of training, equipment failure, or human error—NIOSH and the IAFF are committed to uncovering the truth.

### ***C2.3 Overview of Program from a Volunteer Perspective—Schafer H***

The National Volunteer Fire Council (NVFC) participated in a workshop to determine the level of detail, content and distribution of the National Institute of Occupational Safety and Health's (NIOSH) Fire Firefighter Fatality Investigation and Prevention Program.

The purpose of the program is to determine factors that cause or contribute to firefighter deaths suffered in the line of duty. The outcome of the reports are distributed in many ways including mailings to the major fire service organizations and postings on the NIOSH website.

The reports are beneficial to the volunteer fire service for a variety of reasons. These include prevention of firefighter death and injury. The NVFC has used the informative reports to educate the volunteer fire service through its newsletter and website. Oftentimes, the recommendations made require additional funding for equipment, training, etc. The NVFC educates members of Congress through the reports as well.

Most recently, a report identified that if firefighters involved in a wildland fire had had more equipment, lives may have been saved. This type of equipment is made available to volunteer firefighters through the Volunteer Fire Assistance program. This program is woefully underfunded and receives \$24 million in annual requests when less than \$3 million is awarded. If proper funding were in place, firefighters lives may be saved.

### ***C2.4 NIOSH Fire Fighter Fatality Investigation and Prevention Program—Braddee R***

The United States currently depends on approximately 1.2 million fire fighters (about 210,000 career/paid and 1 million volunteers) to protect its citizens and property from losses caused by fire. The National Fire Protection Association and the U.S. Fire Administration estimate that on average, 105 fire fighters die on the job each year (1986-1995 data), and in 1995 alone, 95,000 fire fighters were injured at work.

In Fiscal Year 1998 Congress allocated funds to the National Institute for Occupational Safety and Health (NIOSH) to address the continuing national problem of occupational fire fighter fatalities and injuries. The objectives of this effort by NIOSH include the investigation of all occupational fire fighter fatalities to assess and characterize the circumstances surrounding these events for the purpose of developing, evaluating and disseminating prevention recommendations to fire fighters and fire departments across the country. The investigations are conducted to gather information on factors that may have contributed to the traumatic occupational fatality. For each case investigated, data are collected on factors associated with the agent (mode of energy exchange), the host (the fire fighter who died) and the environment. These factors are identified during the pre-event, event, and post-event phases. These contributory factors are investigated in detail in each incident, and are summarized in the investigation report, along with recommendations for preventing future incidents.



# NOIRS 2000

*Pittsburgh, Pennsylvania  
October 17-19, 2000*

## ABSTRACTS

**National Occupational  
Injury Research Symposium**

**CDC**  
CENTERS FOR DISEASE CONTROL  
AND PREVENTION

**NIOSH**  
National Institute for  
Occupational Safety and Health