project explores the relationship between occupational injury and depression.

Method: 121 employees with new work-related injuries and 140 controls (employees without work-related injuries) from a variety of employers in the Pittsburgh region completed a self-reported depression screening instrument (PHQ-9). Responses were scored for the presence and the severity of depression and we compare the two groups using univariate and bivariate analyses. Newly injured employees report significantly more depression ($p<0.05$) than controls. We use logistic regression to examine the influence of depression, employment history, marital status, age, and sex on the probability of injury.

Results: We find that while women in this study are no more more likely to be depressed than men, depressed women are 6.2 times more likely to be injured than non-depressed men and 4 times more likely to be injured than depressed men.

Conclusions: These data suggest that depression plays a significant role in workplace injuries, particularly for women. Given this, employers should have an interest in diagnosing and treating depression in their workforce as part of a comprehensive injury prevention and safety program. We discuss the implications of the results for employers and clinicians.

Session: G1.0
Title: Innovations for Improving Fire Fighter Safety in Structure Fires
Moderator: Steven Proudfoot

G1.1

Title: Review of NIOSH Fire Fighter Structure Fire Fatality Investigations
Author: Tarley JL

The National Fire Protection Association and the U.S. Fire Administration estimate that on average, 105 fire fighters die on the job each year. From 1992 through 2001, 283 firefighters lost their lives while responding to structure fires (excluding the 340 firefighters who died during the terrorist attacks on the World Trade Center September 11, 2001). NIOSH investigates occupational fire fighter fatalities to characterize the circumstances surrounding those events for the purpose of developing, evaluating and disseminating prevention recommendations in report form to fire fighters and fire departments across the country. A review of NIOSH's Fire Fighter Investigation reports indicates that from 1997 to 2001 at least 20 fire fighters lost their lives and 5 fire fighters suffered severe injuries after becoming "lost" or "disoriented" while inside a burning structure. The objective of the case series presented here is to describe details from four specific investigations in which fire fighters became lost or disoriented due to poor visibility. The need for fire fighters to effectively navigate in low visibility conditions and to be visible to others for tracking and rescue efforts will be discussed. It is crucial to identify visibility products that are available and determine the extent of their usage. Additional discussion will take place to determine ways to collectively focus our research efforts to address these safety concerns.

G1.2

Title: Fire Fighter Visibility: Which Way is Out?
Author: Powers JR

From 1991 through 2000 303 firefighters lost their lives while responding to structure fires. NIOSH's Fire Fighter Investigation reports from 1997 to 2001 indicate approximately 20 fire fighters lost their lives after becoming "lost" or "disoriented" while inside a burning structure. An important factor to consider is that visibility can be reduced to zero in a matter of seconds, especially after water is applied to the fire.

Numerous NIOSH Fire Fighter Investigation reports mention eyewitness accounts of hearing a low air alarm, seeing the fire fighter leave the area, but the fire fighter never exits the building. When the fire fighter is located he/she is found in an area totally unrelated to where he/she was originally. Many accounts of fire fighters who do manage to get out safely mention that the hose line was very difficult to follow due to low visibility or overlapping lines and not knowing which one to follow or which direction to go.

There are numerous products available that can be beneficial in assisting fire fighters with visibility problems inside of a structure. These include lighted/reflective ropes, Personal Alert Safety System (PASS) devices, high power lights at entryways, etc. The USFA's Technical Rescue Technology Assessment [1995] mentions lighted/reflective ropes and PASS devices as they relate to rescue efforts. However, a question to consider is "How many fire departments really know what is available when it comes to visibility products?"

This session will discuss visibility products, how they are used, and what needs to be done. It will be an open discussion to try to focus research in this much needed area of fire fighter safety.

NOIRS 2003 ABSTRACTS

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