

bales weighing between 1,000 and 1,500 pounds exposes workers to new hazards.

The National Institute for Occupational Safety and Health (NIOSH) State-based Fatality Assessment and Control Evaluation (FACE) program conducts research designed to identify and study factors that increase the risk of fatal occupational injuries. The goal of the FACE program is to prevent occupational fatalities across the nation by identifying and investigating work situations at high risk for injury and then formulating and disseminating prevention strategies to those who can intervene in the workplace.

This poster summarizes large bale case investigations conducted by the Minnesota FACE (MN FACE) program during 1993-1999 and the Oklahoma FACE (OK FACE) program during 1995-1999. During 1993-1999, MN FACE investigated 11 incidents (4 tractor rollovers, 3 entanglements, 2 struck by and 2 caught between) and OK FACE investigated 2 entanglement incidents associated with harvesting and handling large bales. In three of the five entanglement cases, fires developed within the balers.

The MN FACE and OK FACE program investigations resulted in the development of specific safety recommendations to reduce the risk of fatal injury associated with harvesting and handling bales. These recommendations focus on the use of appropriate machinery, proper machine operation and maintenance, availability of fire fighting and communication equipment, and using tractors equipped with a rollover protective structure and a seat belt.

PS.20 Injury Surveillance Using Existing Workers' Compensation Medical Claims Data—Peele PB, Stockman CK, Tollerud DJ

The routine processing of workers' compensation medical claims for injured workers creates a rich database of information about workplace safety. Few, if any, employers currently take advantage of the existence of these data to monitor workplace injuries. The goal of this research is to improve the welfare of employees by providing employers with explicit guidelines for using their medical claims data to monitor workplace safety and to evaluate safety programs.

Workers' compensation medical claims data for the 29,000 FTE employees of the City of Philadelphia for the years 1994-1997 supply the basic dataset for developing monitoring techniques. Using only these data, we construct weighted variables capable of rapidly capturing the number and severity of injuries. These are benchmarked to injuries in previous years and mapped over time to offer employers an ongoing surveillance window to observe changes in workplace safety. Additionally, we estimate the under-reporting of injuries that necessarily occurs when only medical claims data are used to count injuries. This is done by tracking the gap between all

reported injuries and injuries receiving formal medical treatment.

Because most workplace injuries result in very short courses of medical treatment, we find this system to be both feasible and reliable for monitoring workplace safety. Importantly, this novel injury surveillance system does not require any additional data collection by employers. Hence it is a low-cost, easily implemented surveillance/monitoring system that would alert employers to changes in workplace safety, allowing them to intervene early when signs of safety degradation appear. The study population for developing this system is a large municipality, but given the similarity of labor mix across municipalities, these results are immediately and directly applicable to other municipalities. In addition to other municipalities, we expect our guidelines to have direct application for many other large employers as well.

PS.21 ICD-9-CM vs. ICD-10 for Coding Occupational Fatalities: Is ICD-10 Better, Worse, or Just Different?—Pope MJ, Reed DK

The International Classification of Diseases (ICD) is used extensively for coding occupational injury and fatalities. The widely used ninth revision, clinical modification, commonly referred to as ICD-9-CM, is gradually being replaced with the tenth revision, or ICD-10, which was released in 1992. Although an ICD-10-CM has also been developed, its implementation isn't expected to be until after 2001. Mortality data from death certificates has been recorded using ICD-10 since January 1, 1999. This study addresses how the new coding will affect those who rely on ICD codes to track and evaluate workplace fatalities.

The Fatality Assessment and Control Evaluation (FACE) project (funded by NIOSH) at the Kentucky Injury Prevention and Research Center (KIPRC) has tracked occupational fatalities in the state since its inception in 1994. Currently more than 800 fatalities are included in a database of general information that contains ICD-9-CM codes for the cause of death. In preparation for the change to ICD-10, cases were re-coded and the resulting code definitions were compared to the previously coded ICD-9-CM code definitions to determine the effects of the change. This presentation will show the perceived benefits and deficits of the "new" coding system as it relates to actual occupational fatality cases.

PS.22 Fatal Incidents Involving Farm Equipment on Public Roadways—Reed DK, Struttman TW

Data linkage of the Fatality Analysis Reporting System (FARS) and the Fatality Assessment Control Evaluation (FACE) for occupational fatalities in Kentucky revealed agriculture as the second highest Industry and Occupation for work-related roadway fatalities in Kentucky from 1994-97.



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ABSTRACTS

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