



## HIGH-RISK INDUSTRIES (AGRICULTURE, CONSTRUCTION, MINING, HEALTH CARE)

### WHAT IS THE PUBLIC HEALTH PROBLEM?

- Mining, agriculture, and construction consistently lead the Nation in occupational fatalities, with respective rates of 24, 23, and 12 fatalities per 100,000 workers compared with an average overall fatality rate of 4 per 100,000 in 2002. Nonfatal injury rates also are high for people working in these industries.
- Although people working in the health care sector have a lower risk for occupation-related fatalities than the above mentioned industries, the nonfatal injury rate for health care workers is one of the highest in all sectors.

### WHAT HAS NIOSH ACCOMPLISHED?

The National Institute for Occupational Safety and Health (NIOSH) has used industry-specific approaches and partnering to target research on the health of workers in these high-risk industries. The agriculture and construction industries have been targeted since 1990 and as a result are safer than they were a decade ago. NIOSH has 17 cooperative agreements, including 10 with regional centers for agricultural safety and health research. In addition, university-based researchers in 20 states address safety and health issues across a variety of construction trades. An industry approach for mining began in 1996 with active projects now under way in 30 states. NIOSH's own intramural research, surveillance, and information dissemination activities also add an important dimension to improving conditions in these high-risk industries. For example, NIOSH is conducting a specific research program to prevent occupational illness and injury among nurses.

#### *Examples of programs in action:*

- NIOSH improved the safety of people working in the construction industry by identifying fatal falls during communication tower construction as being an emerging hazard and then working closely with industry and government partners to identify safe practices.
- For the health care environment, NIOSH continues to conduct and sponsor studies to determine the use and effectiveness of Ultraviolet Germicidal Irradiation (UVGI). It has been shown that UVGI also can be used to reduce exposure to biological agents that would be released in a bioterrorism incident. In addition, when UVGI is used in indoor environments other than health care workplaces it has been shown to reduce the symptoms associated with indoor air quality.
- In the agriculture industry, NIOSH has supported research to prevent tractor rollovers, the leading cause of farm-related fatalities. This work has led to more effective educational efforts to increase farmers' use of tractor retrofit kits to protect against rollovers.
- In mining, NIOSH has taken a leadership role in conducting research and development studies at operating mine sites to assist the transfer of health and safety advancements in a variety of areas. These include the development of new engineering designs and monitoring strategies for preventing and minimizing rock failures at underground and surface mines, improved training systems and approaches, and the expansion of the extramural mining program to address several high priority topics.

### WHAT ARE THE NEXT STEPS?

Through surveillance, research, prevention, and control NIOSH will continue to work to reduce fatality and injury rates in high-risk industries.

*Additional information is available at [www.cdc.gov/niosh/topics/agriculture/](http://www.cdc.gov/niosh/topics/agriculture/), [www.cdc.gov/niosh/topics/construction/](http://www.cdc.gov/niosh/topics/construction/), [www.cdc.gov/niosh/mining/](http://www.cdc.gov/niosh/mining/), and [www.cdc.gov/niosh/topics/healthcare/](http://www.cdc.gov/niosh/topics/healthcare/). For more information on other NIOSH programs, visit [www.cdc.gov/niosh/docs/pib/](http://www.cdc.gov/niosh/docs/pib/).*

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