

Iowa Department of Public Health  
Occupational Safety and Health Surveillance Program (OSHSP)  
Annual Report  
July 1, 2007-June 30, 2008

**Fundamental Surveillance Program**

The Iowa Department of Public Health (IDPH) Occupational Safety and Health Fundamental Surveillance Program achieved a significant milestone in the past year when Kathy Leinenkugel was hired in August of 2007 as the program coordinator and epidemiologist. Because occupational safety and health fundamental surveillance is a new program for IDPH, this year's activities focused on determining the appropriate role of the program within IDPH, integrating the program into existing IDPH activities and external programs, networking and outreach activities to build awareness, and capacity building on a personal and technical level within the program. This has been successful as seen in a number of outcomes for the year.

1. Occupational Health Indicators were calculated for 2003 through 2006, graphed, and compared to the 2000 USA indicators. This data identified that Iowa has higher rates per 100,000 employed persons for a number surveillance indicators, including:
  - Incidence of total work-related injury and illness.
  - Crude rate of fatal work-related injuries.
  - Rate of amputations involving days away from work.
  - Incidence rate of carpal tunnel cases involving days away from work and covered by workers' compensation.
  - Work-related pesticide poisoning cases.
  - Higher prevalence and incidence rates among adults with elevated blood lead levels blood of 25 µg/dL or higher.

Analysis of the indicator data showed that Iowa's work related fatality rates are higher than the national average for workers 45 years of age or older and double the national rate for workers 55 years or older. For workers 65 years of age or older, Iowa workers have work-related fatality rate of 20.3 deaths per 100,000 compared to a rate of 10.8 per 100,000 workers in the same age bracket at the national level.

The data further showed that the rate of fatalities in agriculturally related industries increases to 1578 deaths per 100,000 workers for agricultural sector workers over the age of 65. These data were shared with program partners to help direct resources within state and local programs to areas with the most need. Packets of information and resources were distributed through IDPH Regional Community Health Consultants to local public health contacts in each of Iowa's 99 counties. Our program is working to establish an OSHSP page within the IDPH website where reports and resource materials will be posted for easy access.

Iowa's OSHSP program has also partnered with the IDPH Center for Acute Disease Epidemiology (CADE) on a number of outbreaks within the state this past year that have included occupational exposures to infectious and zoonotic diseases. The OSHSP program participated with county, state, and CDC personnel to investigate a large outbreak of Histoplasmosis. The source of exposure was determined to be work being done at a public site by a contractor. The cases had attended a holiday event at this public site. OSHSP is currently working with a NIOSH HHE team, county health staff, and the IDPH CADE on a Q fever

outbreak involving workers at a new agricultural work site. This may lead to further research by state and federal agencies on public health risks and protective measures for confined animal feeding operations (CAFOs) for workers, their family members, and the residents of the community. OSHSP has also partnered on possible Iowa worker connections to tuberculosis, Hepatitis A, Progressive Inflammatory Neuropathy (PIN) in swine slaughterhouse workers, and follow-up for medical laboratory workers who were potentially exposed to *Brucella abortus* cultures during a laboratory preparedness exercise.

Widespread severe storms, flooding, and tornado damage resulted in a Governor's Disaster Declaration for 86 of 99 counties. The OSHSP worked with environmental health specialists to make recommendations for personal protective equipment used by emergency response workers and the public. This included safety messages regarding the dangers of carbon monoxide poisoning associated with the use of gas-powered generators, power washers, and other equipment used in the aftermath and recovery process.

The IDPH OSH surveillance program is also participating in the Iowa Injury Surveillance Workgroup to create a five-year comprehensive injury report using STIPDA injury indicator guidelines. Data from the OSHSP indicators will be incorporated into this report.

Iowa is involved in a process called Redesigning Public Health in Iowa. This partnership between local and state public health is working to advance the quality and performance of public health in Iowa. The Redesigning Public Health in Iowa initiative is defining basic standards of service delivery to all Iowans. One of the goals of this process is for all local health departments to work toward accreditation to strengthen the infrastructure of public health in the state. As part of this process, IDPH OSHSP was asked to review and critique the county employee safety and health plan for one of the larger counties in the state.

### **FACE Program**

The Iowa Fatality Assessment and Control Evaluation (FACE) Program brings the causes of fatal injuries to the attention of people who can make a difference in worker safety. Through this program, data are collected on all occupational fatalities in the state of Iowa, in-depth studies are performed for specific types of fatal injuries. The Iowa FACE Program has found that farmers and farm families are at especially high risk for injuries. Although all types of occupations are of interest to the Iowa FACE Program, agricultural fatalities are routinely investigated because of this high risk. The ultimate goal of these investigations is to alert farmers about these risks and develop preventive strategies.

The Iowa FACE Program is collaboration between the Iowa Department of Public Health and the University of Iowa Injury Prevention Research Center. By involving a well-qualified multi-disciplinary team of investigators including occupational physicians, industrial hygienists, epidemiologists, and agricultural engineers, the Iowa FACE Program identifies work environments in the industrial and agricultural sectors that place workers at high risk for fatal injury. The Iowa FACE Program has an established network of collaborators including the Iowa OSHA program, State Medical Examiner's office, county medical examiners, and law enforcement agencies from around the state to ensure timely notification of fatal incidents.

During FY2007 (July 1, 2007 to June 30, 2008) the Iowa FACE Program identified 86 fatal incidents which resulted in a total of 88 traumatic deaths to persons while at work. All but six of the occupational deaths during this period were males. The victims tended to be older with 23 (26 percent) being 60 years of age and older, including 10 who were 70 and older. Of the victims, 5 were less than 21 years of age (15, 16, 16, 19, 20 yrs.). Of the fatalities, 24 percent were to persons working in agriculture.

In an effort to prevent future occupational injuries, the Iowa FACE Program emphasizes the dissemination of its investigations and recommendations. The Iowa FACE Program's dissemination efforts focus on the publication of preventive strategies in trade journals specific to the industry in which the worker was killed. The Iowa FACE Program has published investigations in numerous trade-specific publications such as *Successful Farming*, *Wallaces Farmer*, *World of Welding*, *Arbor Age*, and others. Through this medium, the preventive message is conveyed directly to the managers and workers who can implement the recommended safety practices. The Iowa FACE has also published in numerous peer-reviewed public health journals. The Iowa FACE Program maintains an extensive website ( [www.public-health.uiowa.edu/face](http://www.public-health.uiowa.edu/face) ). This frequently updated one-stop source includes a broad array of FACE-related information including copies of all investigations, Alerts, and other Iowa FACE products.

### **Pesticide Poisoning Surveillance Program (PPSP)**

The major achievement for this year in the PPSP was having an article published in the Morbidity and Mortality Weekly Report on January 4, 2008. The article was: *Acute Pesticide Poisoning Associated with Pyraclostrobin Fungicide — Iowa, 2007*. This article described three events in which people were exposed to drift through the aerial application of pyraclostrobin, a fungicide that is used on corn. The interesting thing about this chemical is that the manufacturer and chemical salespersons are encouraging farmers to apply the fungicide prophylactically – that is, before any fungus is detected on the corn at levels high enough to cause economic damage. The dramatically higher prices for corn have increased the use of this chemical since a yield increase of only a few bushels will pay for the chemical and its application.

The data for calendar year 2007 cases of occupational pesticide poisoning are still being evaluated. There are currently 176 known occupational cases. Of these cases, 48 have classified as definite cases, and 29 have been classified as probable cases. An additional 59 cases have been classified as possible cases, 3 have been classified as asymptomatic, and 1 has been classified as suspicious. Finally, 36 cases have not been classified. Disinfectants have been identified as the pesticide most frequently associated with these cases of occupational pesticide poisoning. Analysis of the 2007 data are continuing.