

Environmental Epidemiology

Promoting & Protecting the Health of Iowans

Division of Environmental Health

Phone: 515-281-7462

www.idph.state.ia.us/eh/env_health.asp



Iowans may be exposed to environmental conditions that cause disease at home, outdoors, and in the workplace. Environmental Epidemiology helps protect the health of all Iowans by watching for and investigating diseases and illnesses caused by environmental conditions such as food borne illnesses, arsenic in private water wells, carbon monoxide poisonings, lead poisoning, and concerns about diseases during floods or other natural disasters. Environmental Epidemiology also seeks to prevent illnesses that are caused by environmental conditions through activities such as using data about environmental exposures more effectively to prevent disease and illness, assuring children are tested for lead poisoning, reducing exposure for lead-poisoned children, and providing information about ways to prevent harmful exposures at home, work, and play.

By working to understand and prevent harmful environmental exposures, Environmental Epidemiology helps keep Iowans safe.

Did you know?

3.6% of Iowa children will be lead-poisoned by their 6th birthday. This means about 1,350 Iowa children born each year will become lead poisoned by their 6th birthday.

In 2011, there were 90 traumatic work-related deaths in Iowa, with an age range of 10 to 85 years (IA FACE preliminary data). This is above the annual 3-year average in Iowa of 82 work-related fatalities. Iowa has a higher percentage of older worker deaths (55 years of age or older) than the US with a current 3-year average of 44% compared to a US average of 31%. (Source: IA FACE data).

Why is Environmental Epidemiology important to promoting and protecting the health of Iowans?

- Everyone is at risk for developing an environmental or occupational disease.
- Nearly 40% of Iowa houses were built before 1950, and most of these homes contain lead-based paint. Young children who live in pre-1950 houses are lead-poisoned when they put paint chips or exterior soil in their mouths or when they get house dust and soil on their hands and put them in their mouths.
- In 2010, the rate of reported work-related injury and illness in Iowa was 4.4 per 100 FTE (U.S. rate 3.5). 13,000 reported cases involved days away from work.
- In 2011, there was one reported death from carbon monoxide poisoning in Iowa.

Which Iowa Public Health Goals are we working to achieve?

Protect against environmental hazards

Prepare for, respond to, & recover from public health emergencies

Prevent epidemics & the spread of disease

Prevent injuries

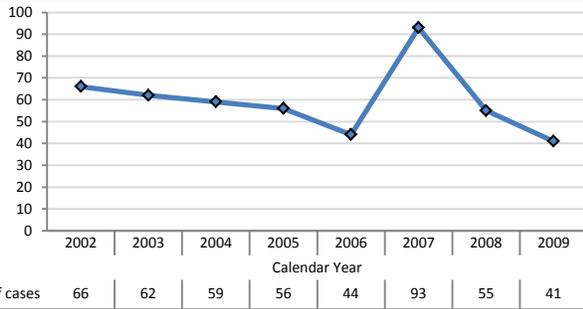
Strengthen the public health infrastructure

What do we do?

- The Lead Poisoning Prevention program works to prevent childhood lead poisoning by assuring children are tested for lead poisoning, reducing exposure for lead-poisoned children, and educating Iowans about prevention. In 72 counties, local boards of health provide childhood lead poisoning prevention services; IDPH provides funding and technical assistance. IDPH provides direct services in the remaining 27 counties.
- Provide guidance and assistance to local public health officials and other state agencies on environmental exposures when needed.
- Work with other state and local agencies to investigate illnesses caused by food and water.
- The Occupational Health and Safety Surveillance program tracks, analyzes, and reports work-related illnesses, injuries, and deaths, and cases of adult lead and pesticide poisoning. It also provides information to workers, employers, and other public health programs.
- The Environmental Public Health Tracking program involves the ongoing collection, integration, analysis, interpretation, and dissemination of data on environmental hazards, exposures to those hazards, and health effects that may be related to the exposures.

How do we measure our progress?

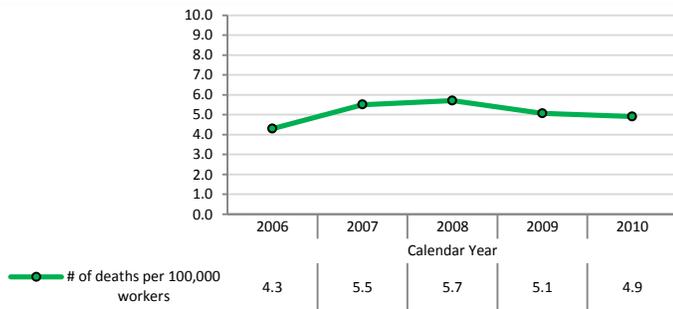
1 Annual number of pesticide associated illness and injury cases reported to poison control centers, lowans age 16 or older.



Data Source: NIOSH and the American Association of Poison Control Centers. Data are available annually. 2010 and 2011 data are not yet available.

How are we doing? Numbers of pesticide cases and the corresponding rates per employed persons continue to vary from year to year, somewhat due to reporting patterns.

2 Rate of occupational fatalities per 100,000 employed lowans ages 16 and older.

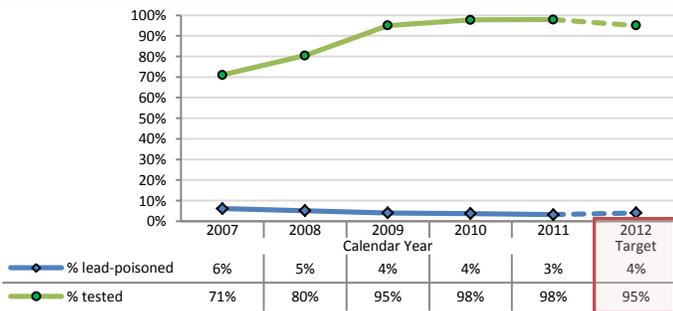


Data Source: Occupational Health and Surveillance Program and U.S. Department of Labor. Preliminary data are available annually, with a 2-year delay for final data. 2011 data are not yet available.

How are we doing? The rate of fatal workplace injuries has varied from 4.3 deaths per 100,000 workers (87 deaths) to 5.7 deaths per 100,000 workers (93 deaths). Roadway transportation incidents accounted for 60% (47 of 78) of the work-related deaths in 2009.

3 Percent of Iowa children who get a blood lead test by age six.

4 Percent of Iowa children getting a blood lead test who are identified as lead-poisoned.



Data Source: IDPH Childhood Blood Lead Surveillance Database. Data are available annually.

How are we doing? Virtually all Iowa children are now tested for lead poisoning. The percentage of children tested for lead who are lead-poisoned is steadily decreasing. However, there is still a need to teach providers and parents about the need for testing.

What can Iowans do to help?

1. If you have been diagnosed with an environmental-related disease, make sure your physician reports it to IDPH. For a list of reportable environmental diseases, go to http://www.idph.state.ia.us/eh/reportable_diseases.asp.
2. All Iowans should be aware of the dangers of pesticides. Report all human pesticide exposures by calling the Iowa Statewide Poison Control Center at 1-800-972-2026. To learn more, go to www.idph.state.ia.us/eh/lead_poisoning_prevention.asp#pesticide.
3. Local public health should consult the Environmental Epidemiology program for help and guidance on possible environmental exposures and health concerns.
4. Iowa parents should be aware of possible exposure to lead hazards and have their children tested for lead poisoning. All Iowans should be aware of lead poisoning risks. To learn more, go to www.idph.state.ia.us/eh/lead_poisoning_prevention.asp.
5. Adults who work with lead should be aware that they can become lead-poisoned, their children could be poisoned by lead brought home on their clothes, and their unborn children can be exposed to lead if they are pregnant.
6. Follow laws requiring training and certification of those who identify or abate lead-based paint, and those who perform renovation, remodeling, and repainting in pre-1978 housing or child-occupied facilities.
7. Iowa workplaces should adopt safety practices to prevent fatal injuries. To learn more, go to www.public-health.uiowa.edu/face/.

Expenditures

Funding Sources: General fund, federal funds, & retained fees. K13-1351; 0153-0402/0984/1352/1708/1912/1954

	State Fiscal Year 2011 Actual	State Fiscal Year 2012 Actual	State Fiscal Year 2013 Estimate
State funds	\$541,636	\$503,585	\$537,750
Federal funds	\$1,399,727	\$1,338,023	\$1,606,088
Other funds*	\$55,015	\$304,237	\$706,137
Total funds	\$1,996,378	\$2,145,845	\$2,849,975
FTEs	10.75	10.67	12.75

Note: Funding information is intended to provide an overview of funding related to the program area. It does not include all federal and state requirements and/or restrictions for the use of funds. Contact the program area for more detailed budget information.

Iowa Department of Public Health ◆ Division of Environmental Health ◆ Environmental Epidemiology

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Occupational Health & Safety Surveillance – Phone: 800-972-2026 ◆ Fax: 515-281-4529 ◆ www.idph.state.ia.us/eh/lead_poisoning_prevention.asp#occupational