

INDIAN HEALTH SERVICE
PORTLAND AREA
DIVISION OF ENVIRONMENTAL HEALTH SERVICES (DEHS)

Healthy Homes Program

Many homes fall short of the basic requirements of a healthy home and contain one or more of hazards that adversely affect human health. Scientific research has shown that these housing-related hazards pose a broad spectrum of risks, including the following:

- Mold and pests — such as cockroaches, rodents, and dust mites — can cause and contribute to asthma, allergies, and other respiratory illnesses. Poisonous gases such as carbon monoxide and radon also pose threats to health. Carbon monoxide poisoning results in more than 200 accidental deaths a year and, at much lower levels, causes flu-like symptoms, which often go undiagnosed. Radon can increase the risk of cancer, which is the second leading cause of death among adults and children in the U.S.
- Since housing conditions can play a significant role in respiratory health, these hazards can greatly increase and intensify susceptibility to respiratory illnesses.
- Toxic materials such as lead, asbestos, and chemical pesticides can harm human health in a variety of ways. For instance, lead poisoning in children causes reduced IQ and attention span, hyperactivity, impaired growth, reading and learning disabilities, hearing loss, insomnia, and a range of other health, intellectual, and behavioral problems. Pesticides can cause a wide range of health problems, including acute and persistent injury to the nervous system, injury to reproductive systems, birth defects, and cancer. The health effects from exposure to pesticides vary depending upon the level and duration of exposure. As with most environmental toxins, children are at greater risk from exposure than are adults. Some studies have demonstrated a link between childhood cancers and pesticides.
- Unsafe housing conditions also interfere with the immediate health and well-being of children and older adults through unintentional injuries. Older adults are particularly susceptible to severe injuries from falls, and unintentional injuries are the leading cause of death in all children ages 1-21. Although the type of unintentional injury most likely to occur varies with the age of the child, the National Safe Kids Campaign identifies fire, drowning, suffocation, choking, falls, unintentional firearm injury, and poisoning as leading causes of death in the home.

Growing focus on the home as a site of multiple disease and injury risks is placing additional burdens on the environmental health specialist, and while nationally there are on-going efforts to address housing issues in Indian Country, including programs to increase housing stock and ensure adequate drinking water and sewage disposal, environmental health interventions have seen no increase in funding.

RISK ASSESSMENT AND HAZARD CONTROL

The DEHS assesses and inspects housing and residential environments in order to identify and control hazards that contribute to illnesses and disease.

- The DEHS conducts onsite mold and asthma trigger surveys.
- Utilizes portable hazard investigation equipment to assess indoor environmental quality.
- Provides training on healthy housing principles to homeowners during inspections.

ENVIRONMENTAL SURVEILLANCE AND INVESTIGATION

The DEHS get clinical referrals to provide environmental health consults for patients who have moderate to severe or poorly controlled asthma, children who have lead poisoning or elevated blood-lead levels, elders at risk for falls, or other health conditions related to environmental exposures.

Environmental investigations of these cases include assessments of environments to identify hazards and make recommendations for corrective actions to improve the environmental conditions.

TECHNICAL ASSISTANCE, POLICY DEVELOPMENT, AND STUDY

Although in the last decade research has matured that demonstrates the link between specific home conditions and health, significant knowledge gaps remain. Addressing these gaps will require research linking home conditions with specific health outcomes. That effort must also account for personal, housing unit, neighborhood, and community-level factors as well as applied research that evaluates the effectiveness of home interventions in different communities. The DEHS advises and consults on program planning and policy development related to healthy housing, and evaluates the effectiveness of DEHS interventions to advance the applied field research. Activities and projects include:

- Ensure tribes have and enforce current, relevant building codes. Such codes, when followed, are proven to prevent indoor environmental hazards due to poor site selection, inappropriate building materials, or ineffective construction techniques.
- The DEHS provides health and safety training and educational materials on a variety of topics to homeowners and Tribal Housing Authority staff.
- Participate in professional associations in order to network with other agencies throughout the state(s).
- Ensure community-based research is being conducted regarding illnesses and injuries having environmental etiologies in the home.
- Through the Integrated Pest Management project, provide training and environmental health guidance regarding safe and effective use of household chemicals, such as pesticides, particularly to sensitive populations, such as children, pregnant women, and seniors.