

# Welcome



**OAR Tribal Asthma and Housing Update:  
And Tribal IAQ ~ *Learning, Sharing, and Networking*  
September, 2010**



# Current State of Housing

- 6 million households live with moderate or severe physical housing problems.
- 24 million homes face significant lead-based paint hazards. A growing body of research links substandard housing conditions with illness and injury.
- Housing-related health costs total in the billions annually.
- Lead-based paint and other toxins especially enclosed indoors may cause lead poisoning, cancer, and neurobehavioral disorders which can accumulate to approximately \$52.9 billion in annual costs.
- Chronic diseases such as diabetes and asthma are influenced by all of these environmental conditions.

According to **“HUD’s American Housing Survey ~ 2007”**



# Current State of Tribal Housing

- Tribal housing is grave and needs immediate attention....
- Due to previous housing built with.....
  - poor ventilation, high indoor air toxins, hazardous gases from heating devices that contaminate the breathable indoor air within tribal members homes, schools and buildings.



# Tribal Housing Case Study: Pine Ridge, SD

- According to a 2003 report from South Dakota State University, the majority of the current Tribal Housing Authority homes were built from 1970-1979.
- 59% of the Reservation homes are substandard.
- 26% of the housing units on the Reservation are mobile homes, often purchased or obtained (through donations) as used, low-value units with negative-value equity.
- At least 4,000 new homes are needed to combat the homeless situation.
- 33% of the Reservation homes lack basic water and sewage systems as well as electricity.
- Many Reservation homes lack adequate insulation. Even more homes lack central heating. At least 60% of the homes on the Pine Ridge Reservation may have an infestation mold.



# Tribal Housing Case Study: Pine Ridge, SD

- There is no insurance or government program to assist families in replacing their homes.
- 39% of the homes on the Pine Ridge Reservation have no electricity.
- The most common form of heating fuel is propane. Wood-burning is the second most common form of heating a home although wood supplies are often expensive or difficult to obtain.
- Many Reservation homes lack basic furniture and appliances such as beds, refrigerators, and stoves.

*“Hidden Away, in the Land of Plenty”*  
Stephanie M. Schwartz



# Current State of Asthma and Tribal Nations

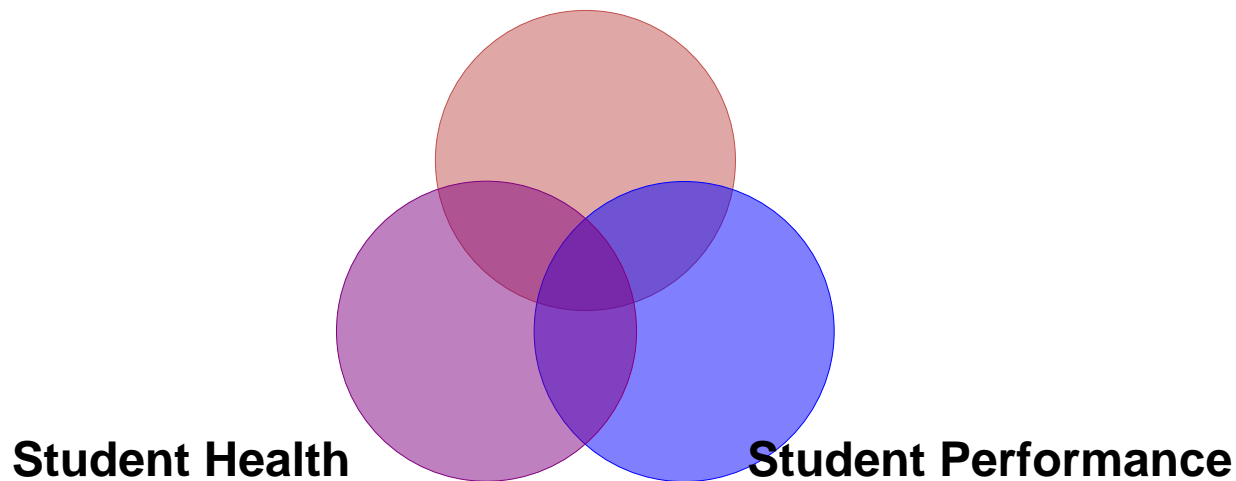
- 10% of Native American children have been diagnosed with asthma. (CDC)
- 12% or 250,000 ~ Native Americans have been diagnosed with this disease (IHS).
- Native American communities are suffering **twice** the national average from asthma disease and other respiratory illnesses due to this increase in mold, moisture, and many other hazardous indoor air pollutants, according to the IHS, CDC and many other leading health organizations tracking Native American health issues.

***According to Indian Health Service (IHS) and Centers for Disease Control (CDC)***



# Unhealthy Housing = Unhealthy Children

**Housing/Living Conditions**





# Schools, Children's Health and Performance

- More than 53 million children and about 6 million adults spend a significant portion of their days in more than 120,000 public and private school buildings in the United States.
- Many of these buildings are old, in poor condition, and may have environmental conditions that inhibit learning and pose risks to the health of children and staff.
- One third of schools (housing about 14 million students) have buildings in need of extensive repair or replacement.
- Research reports suggest that students attending schools in poor condition score 11 percent lower on standardized tests than students who attend schools in good condition.



# Schools, Children's Health and Performance

- **If schools have poor IAQ, students, teachers, and staff may miss more school days and experience decreased performance.** Poor IAQ and related problems that can lead to school absences include:
- **Asthma** - Asthma-related illness is a primary cause of school absenteeism, accounting for 14.7 million missed school days per year. Asthma affects one out of every 13 school-aged children. IAQ problems in schools — the presence of mold, dust mites, cockroaches, pet dander, and certain chemicals — can trigger asthma attacks.
- **Moisture** - Moisture problems in schools contribute to mold and pest problems, which can affect allergic individuals and people with asthma.
- **Nitrogen Dioxide** - Nitrogen dioxide has been associated with increased respiratory symptoms and student absences, even at levels within existing health standards. Nitrogen dioxide is a byproduct of combustion sources, such as unvented gas and kerosene heaters, pottery kilns, and woodstoves. Infiltration of vehicle exhaust is another contributor to nitrogen dioxide levels.



# Benefits of Improved IAQ in Schools

- Indoor air quality (IAQ) is a critical component of providing a healthy and comfortable learning environment. IAQ affects the health, productivity, performance, and comfort of students, teachers, and staff.
- Good IAQ helps schools meet their core mission — educating children.
- Improving IAQ in schools can help:
  - Reduce absenteeism
  - Improve student and staff concentration
  - Improve student productivity and performance
  - Decrease IAQ-related health risks from exposure to indoor pollutants
  - Reduce environmental triggers of asthma
  - Reduce respiratory illness



# TfS Case Studies: Improved IAQ in Schools

- Schools across the country have observed many health-related benefits from implementing the **IAQ Tools for Schools Action Kit**:
  - Improvements in comfort levels and a decrease in IAQ-related complaints (*King-Murphy Elementary School, Colorado*)
  - A reduction in IAQ complaints from one per month to three per year since 1997 (*Shamona Creek Elementary School, Pennsylvania*)
  - A dramatic decrease in absenteeism, fewer reported bronchitis cases reported by school staff, an increase in comfort, and a 25-percent reduction in the number of visits to the school nurse within the first 5 months of implementing the Action Kit (*Little Harbour School, New Hampshire*)
  - A 50-percent reduction in visits to the nurse's office for the use of asthma inhalers (*G.W. Carver Elementary School, California*)
  - A reduction from 75 complaints related to health and faulty equipment in 1994 to fewer than 15 in 1999 (*Okaloosa County School District, Florida*)



# Tribal IAQ Web site

## *Audience:*

- Professionals and advocates that conduct IAQ outreach activities for Native American parents and caregivers of children. [(11.9% Asthma Rate among N.A. (CDC))]

## *Objectives:*

- **Raise awareness** about IAQ among tribal leaders.
- **Increase the reach** and impact of IAQ outreach.
- **Facilitate communication** among widely dispersed and culturally diverse tribal communities.



# Tribal Partners Program

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 **HELPING TRIBAL FAMILIES BREATHE EASIER**  
**TRIBAL PARTNERS**



Indoor Air Quality (IAQ)

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## Indoor air quality (IAQ) professionals are making a difference in tribal communities.

Every day, IAQ professionals champion healthy indoor environments for tribal community members. This Web site aims to further empower champions of healthy IAQ in tribal communities with tools for networking, sharing innovative and promising programs and practices, and by serving as a reservoir of the best available tribal-specific IAQ information and materials.



[See the Directory of Tribal Champions](#)



[View the Upcoming Events Calendar](#)

Asthma affects almost 12 percent of people living in tribal communities—nearly double the current national average.

[Learn More](#)





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 **HELPING TRIBAL FAMILIES BREATHE EASIER**  
**TRIBAL PARTNERS**



Indoor Air Quality (IAQ)

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## Asthma Triggers

Asthma is a serious, sometimes life-threatening respiratory disease caused by inflammation of the airways. When the muscles surrounding the air passageways in the lungs become inflamed, the airways become smaller, making it more difficult for air to move in and out. This causes the characteristic symptoms of an asthma episode or an asthma attack: coughing, chest tightness, shortness of breath, and wheezing.

[Show/Hide Additional Information](#)

### Spotlight

#### Aberdeen Asthma Prevention Campaign

Native American children suffer from asthma at a level almost twice that of the general U.S. population. The Asthma Prevention Campaign of the Aberdeen Area Tribal Chairmen's Health Board (AATCHB) aims to improve asthma management for American Indians residing in the Aberdeen area (North Dakota, South Dakota, Nebraska, and Iowa) by providing asthma prevention and management information, and community and clinic trainings. [Click here to learn more about](#)

### Learn About IAQ

[IAQ in Tribal Communities](#)

[Asthma Triggers](#)

[Secondhand Smoke](#)

[Radon](#)

[Moisture/Mold](#)

[Wood Smoke](#)

[Carbon Monoxide](#)

[Other](#)



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[Show/Hide Additional Information](#)

**+ Spotlight**

**+ Resources**

**- Materials**

### Tribal Materials

[Native Asthma Intervention and Reduction Program](#) (Native AIR)

This Web site provides comprehensive resources and links for further information.

- [Materials](#)
- [Asthma Resources Tailored to American Indians](#)

[Aberdeen Area Tribal Chairmen's Health Board Asthma Prevention Campaign](#) and [Toolkit](#)

This toolkit provides information on creating an asthma action plan, starting an asthma registry, coordinating asthma teams,

### Learn About IAQ

**IAQ in Tribal Communities**

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## Connect



**Event Calendar** - Access the online events calendar to learn more about indoor air quality related events or to submit an event you would like to share with others!



**Directory** - Visit the directory to find IAQ champions working with tribal communities. Many of these programs are featured throughout this Web site due to their innovative approaches, by sending them an e-mail or giving them a call today.

Connect

Directory

Events

EPA Tribal Links

Send Comments



# Connect

**Connect** with other tribal environmental professionals so you can share successful approaches, materials and information about IAQ in tribal communities.

- List your program and contact information in the national Directory.
- Post your program events.
- Share resources made by and for tribal community members.



# Learn

**Learn** the latest research about IAQ, information about IAQ-related health issues, such as asthma and allergies, and discover how other tribal IAQ programs have successfully helped their community members improve their indoor environments.

- Read Community Spotlight features.
- Access the latest information about IAQ.
- Discover other tribal IAQ programs' approaches, materials and tools.



# Take Action

**Take Action** to improve IAQ in tribal communities by:

- Posting your events on the Events Calendar.
- Sharing your successful outreach or other program materials.
- List yourself in the Directory of tribal IAQ professionals.



# Next Steps:

## Tribal IAQ Online Training Opportunities

- Current and Upcoming Tribal IAQ Online Webinars:
  - Asthma 101 Course, Schools, Radon, etc.
  - Weatherization/Northwest Tribal Healthy Homes.
  - Right Now Emails will keep you updated for future trainings
  - Potential to earn continuing education credits (CEQ)
- Attend National IAQ Tribal Related Conferences (2010-11)
  - Tribal IAQ/Schools Training (January, 2011-2013)
  - Tribal IAQ/Asthma Training (Summer, 2011-2013)
  - Tribal IAQ/Radon Training (TBD ~ 2011-2013)



# ***THANK YOU!***

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