Indoor Air Quality on Tribal Lands

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Indoor Air Quality (IAQ) on Tribal Lands

IAQ & Health

EPA Region 9
Air Toxics, Radiation, and
Indoor Air Office (ATRIA) &
ATRIA Goals

IAQ Opportunities

Activities & Partners
IAQ: Opportunity to directly address environmental exposures to make an immediate positive impact on health outcomes.
Air pollution can be many times more concentrated indoors compared to the outdoors.

Sensitive groups
- Children
- Elders
- Those suffering from heart and lung disease
- Those with certain genetic conditions

CHILDREN
- Breathe more than adults, relative to their body weight
- Children are rapidly growing and developing
- Less developed natural defenses
- Spend more time close to the floor, where contaminant levels can be higher
RADON EXPOSURE PREVENTION
• #1 cause of lung cancer among non-smokers
• #2 cause of lung cancer overall (smoking is #1).
• Responsible for about 21,000 lung cancer deaths every year.
• Lung cancer risk is higher for radon-exposed people who smoke, and AI/AN have highest prevalence of smoking (21.8%)

Most radon exposure occurs in the home. Testing for radon is inexpensive and easy. Homes with high radon CAN be fixed.
IAQ and Health

MOLD

Health Effects

- Allergies
- Respiratory symptoms
- Asthma
  - Dampness and Mold in homes accounts for 20% of current asthma in the US, at an estimated annual treatment cost of $3.5 billion (Mudarri and Fisk 2007).

You don’t have to test to know you have a problem and what to do about it!

There is no practical way to eliminate all mold and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.

For resources, visit: http://www.epa.gov/mold/
IAQ and Health

ASTHMA

Disparities

• Asthma is the most common chronic childhood disease affecting 1 in 13 school aged children on average.

• One of the leading causes of school absenteeism

• 13.0% of American Indian/Alaska Native children compared to 8.9% of children in the U.S.

TRIGGER MANAGEMENT

In homes:
Home-based multi-trigger environmental interventions are effective in reducing symptoms, school days missed, and healthcare visits.

In schools:
Available Resources
• EPA Indoor Air Quality Tools for Schools Program and Action Kit
• Trainings
Air Toxics, Radiation, and Indoor Air Office (ATRIA)

Program Goals
• GAP & Air Grants
• Support Tribal IAQ programs
• Tribal Indoor Air & Health Network

Topic Areas
• Radon,
• Radiation
• Mold
• Ventilation
• Wood & Coal Stoves
• Asthma Trigger Management
• Community Air Toxics
• Near-roadway Pollution
• IAQ in Schools and Homes
• IAQ Guidance (e.g. Tribal Green Building Toolkit)

IAQ Accomplishments 2013-2014
• Trainings: asthma triggers, IAQ, mold
• Navajo Nation Radon Program
• Navajo Nation outreach & PSAs on wood & coal smoke (www.epapsa.com)
Current Activities

- Tribal IAQ programs development
- Resource development & Guidance
- Research
- Trainings

Partners/Collaborators

- Diné College
- Northern Arizona University
  - Institute for Tribal Environmental Professionals (ITEP)
  - Arizona American Indian Asthma Coalition
  - Tribal Air Monitoring System Center (TAMS)
- University of Tulsa
- Inter Tribal Council of Arizona (ITCA)
- Intertribal Council of Nevada
- National Indian Child Care Association
- Tribal Child Care Association of California
- University of Montana, Missoula
**IAQ Opportunities: Clean Air Act Funding**

- **Bishop Paiute Tribe**
  Air quality specialist conducts individually-tailored air quality assessments in homes and tribally operated buildings (e.g. business, Head Start) and provides specialized IAQ reports on as-needed basis. Assessments lead to remedial actions.

- **Manzanita Band of Dieguengo Mission Indians**
  Indoor air monitoring & education – monitor homes and offices for PM, provide Healthy Homes education and outreach to community, train their staff on IAQ, and identify health-based hotspots.

- **Morongo Band of Mission Indians**
  Determines IAQ problems, implements strategy for problems, conducts community outreach, continues Tools for Schools

- **Tohono O’odham Nation**
  Maintains a partnership with Institute for Tribal Environmental Professionals (ITEP) to do several yearly indoor air quality assessments at tribal schools.

- **Yurok Tribe**
  Education and outreach – distribution of educational materials regarding indoor air quality health guidelines in newsletters and other quarterly mailers.

**Tribal Indoor Air Quality Programs in the Spotlight**

[http://www.epa.gov/iaqtribal/spotlight.html](http://www.epa.gov/iaqtribal/spotlight.html)
IAQ Opportunities: General Assistance Program (GAP) Funding

Building Tribal Ambient and Indoor Air Quality Program Capacities

- **Section C.2 & C.3 in Appendix 1 of the Indian Environmental General Assistance Program Guidebook**

- **Establishing Tribal Air Quality Programs (C.2)**
  
  **Example activities:**
  - Skill development: training staff
  - Compiling data
  - Community engagement

- **Indicators of Air Quality Program Capacity (C.3)**
  
  - Indoor air quality assessments and reporting
  - Establishing a radon program
  - Report recommending actions on indoor pollutants

Tribal Indoor Air Quality Programs in the Spotlight

[http://www.epa.gov/iaqtribal/spotlight.html](http://www.epa.gov/iaqtribal/spotlight.html)
How we can support your work?

• Developing
  – Resources
  – Partnerships
  – IAQ program strategy
• Capacity Building
  – Provide Trainings
  – Air and GAP grants
• Tribal IAQ & Health Network

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