
Indoor Air Quality on Tribal Lands

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Indoor Air Quality (IAQ) on Tribal Lands

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Indoor Air Quality (IAQ) on Tribal Lands

IAQ & Health

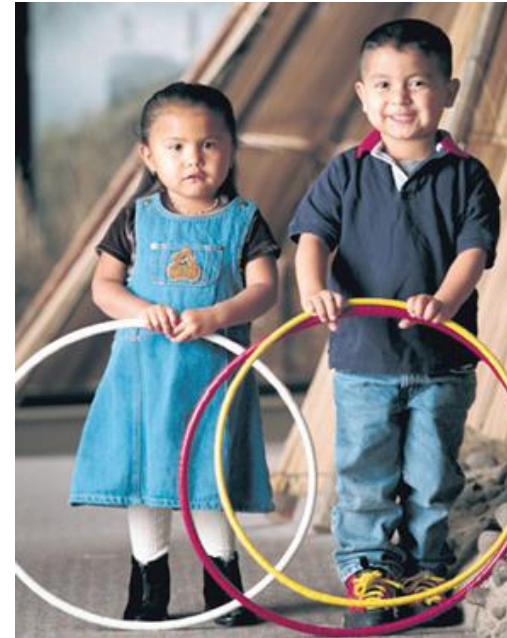
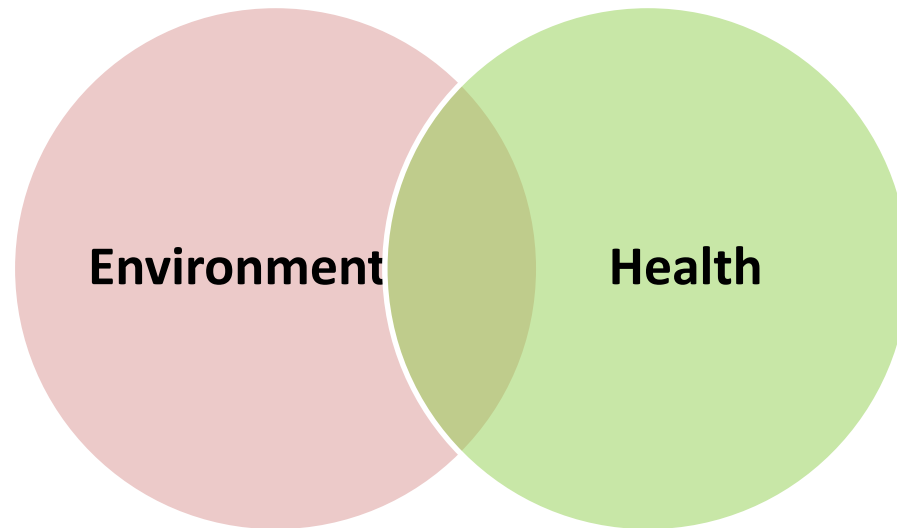
EPA Region 9
Air Toxics, Radiation, and
Indoor Air Office (ATRIA) &
ATRIA Goals

IAQ Opportunities

Activities & Partners

IAQ and Health

EPA's Mission



IAQ:

Opportunity to directly address environmental exposures to make an immediate positive impact on health outcomes.

IAQ and Health

Air pollution can be many times more concentrated indoors compared to the than the outdoors.



Sensitive groups

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

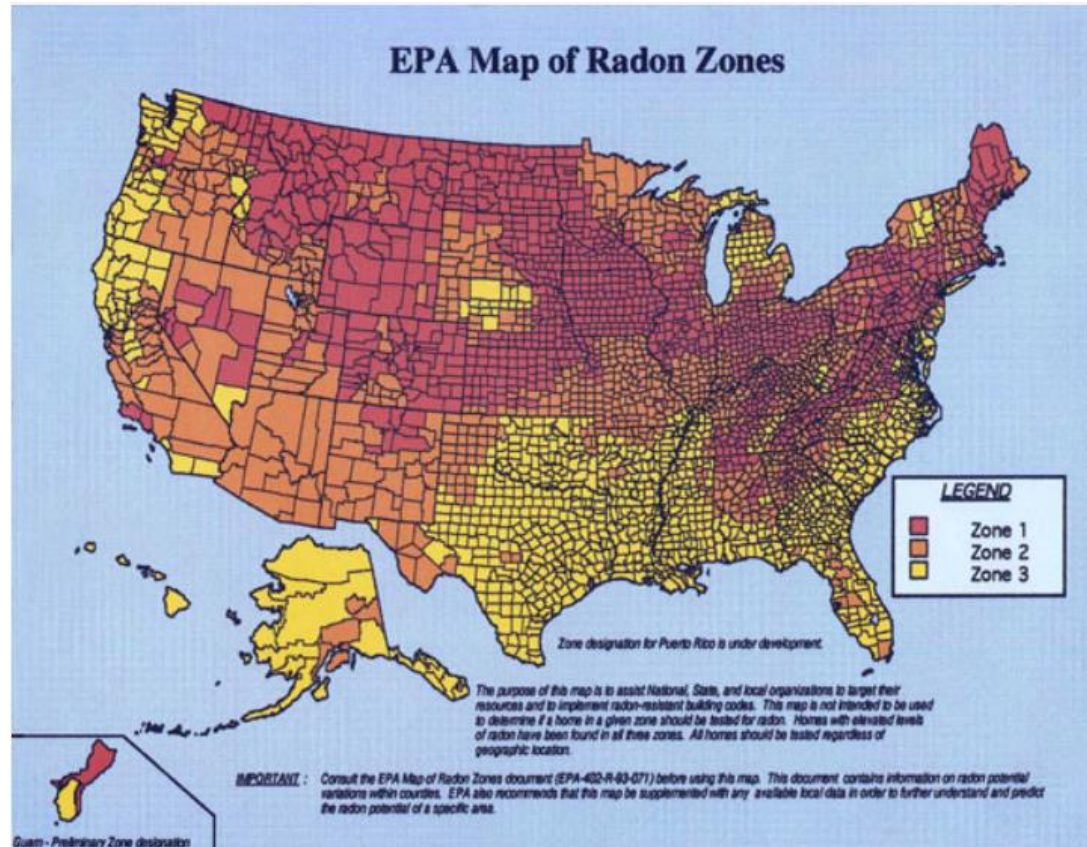
CHILDREN

- 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

IAQ and Health

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

IAQ Accomplishments 2013-2014

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



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)



Air Toxics, Radiation, and Indoor Air Office (ATRIA)

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 Diegueno 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>

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>

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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