Methods to Assess and Document Mold Contamination

Friday, May 8th
10:00am – 11:30am PDT
Webinar provided by the Tribal Healthy Home Network and the Institute for Tribal Environmental Professionals
TODAY’S SPEAKERS:

Gillian Mittelstaedt, MPA
Director, Tribal Healthy Home Network

Dave Leonard, CIH
Industrial Hygiene Consultant,
NVL Laboratories, Inc
A common goal and an uncommonly important challenge:

to provide safe and healthy housing for our tribal families and communities.
TO NOTE...
Today we will cover industry-recognized methods to assess and document mold contamination. After the webinar, THHN and ITEP can provide:

- Baseline technical assistance
- Connections to trainers, courses and materials
- Assistance with *healthy housing practices* and *mold prevention strategies*, including resident education (next week’s webinar)
TO NOTE... *Don’t hesitate to reach out to:*

- Tribal **environmental or air quality** staff
- Tribal **health care service providers**
  (tribal 638, urban or IHS)
- **HUD** - regional and headquarters
- **EPA** - regional and headquarters
- Tribal **consortia** from different fields
  (ANTHC, NWIHA, NAIHC, NTAA)
- Private sector partners with **technical expertise**
DISCLAIMER:
If you are applying for the current HUD grant, please contact them directly for all questions related to the NOFA.

HUD Contact:
Roberta L. Youmans
202-402-3316
Roberta.L.Youmans@hud.gov
TO NOTE...

HUD’s webinar on the NOFA is being archived and will soon be available.

HUD’s CodeTalk page will include answers to Frequently Asked Questions.
BEFORE WE BEGIN... A brief look at the NOFA

- Who is a “Qualified Individual”?
- What about “Third Party Verification”?
- What is considered “Credible Evidence”?
HUD Rating Factors: 100 Points Total

- Need/Extent of Problem
- Capacity
- Soundness of Approach
- Leveraging Resources
- Comprehensiveness and Coordination

[Pie chart showing points distribution: Need/Extent of Problem (30), Capacity (33), Soundness of Approach (10), Leveraging Resources (10), Comprehensiveness and Coordination (17)]
Capacity begins with training... but it takes hold when **systems** are put into place by which staff can put their training knowledge into **daily practice** and **management-supported programs**.

*Moisture surveys, annual mold inspections, resident mold policies, ventilation investments, green building codes...*
Part 1: METHODS for assessing mold and moisture damage

Part 2: TOOLS for collecting health information

Part 3: RESOURCES on remediation and prevention

Part 4: QUESTIONS
Part 1: METHODS for assessing presence of mold and moisture damage
The Process

1. Recognition
2. Evaluation
3. Control
1. **Recognition**
   - Collecting information so a situation can be evaluated & controlled
   - Want to have the information to meet the NOFA?
   - Don’t want to have to repeat it because of missing information
Purpose of the Recognition Process

✓ To be able to recognize and document information about the presence of mold so that it is useful for the evaluation and control steps.
Key to Identify in the Recognition Process

- Water Damage
- Presence of Mold
- Health Impacts
Basic Knowledge of Mold

What is mold?
Is mold bad?
Basic Knowledge of Mold

✓ Mold contamination
Basic Knowledge of Mold

✓ Mold Triangle
  ✓ Food
  ✓ Moisture
  ✓ Environment
Basic Knowledge of Mold

✓ “The key to mold control is moisture control”
Basic Knowledge of Mold

✅ Mold - spores to colonies
Basic Knowledge of Mold

✓ Why the concern?
Recognized Limitations of the Assessment

- Non-invasive survey
- No mold testing
- No instruments
What are the sources?

What is meant when something is “wet”
Moisture / Water

✓ Building Construction
Building Construction “Failures”

- Age
- Construction Defect

Moisture / Water
✓ What to look for
✓ Where to look
✓ What is “damage”
At every location, ask:

- Are there any wet/damaged materials?
- Is there any source for water intrusion?
At every location, documentation:

- Written description
  - What does it look like?
  - What is the condition of the material?
  - How did it get this way?
  - How much is there? Measure it!
  - Any ideas on how to correct the situation?

- Photographs
Remember, the information collected at the recognition step helps with the next steps of evaluation and control.

Information will be used by

- HUD grant reviewers
- Contractors

Quantities and types of materials is important in planning and budgeting the work
Documentation needs to include:

- Floor Plan indicating locations and scale of area
- Measurements
- Good written descriptions
- Good ideas on source of issue and possible solutions
- Good photographs
Assessing for the Presence of Mold

✓ Equipment
   ✓ Yourself - inquisitive brain, eyes & nose
   ✓ Good flashlight
   ✓ Good camera
   ✓ Tape measure
   ✓ Paper & Pen / Forms - to write down information
   ✓ Moisture meter
Assessing for the Presence of Mold

✓ Moisture Meter

Moisture meter and moldy roof sheathing.
Sampling for mold

- In most cases, if visible mold is present, sampling is unnecessary.

- The most important sign of a mold problem is visible mold.
Assessing for the Presence of Mold

✓ Protecting yourself
Assessing for the Presence of Mold

✓ Ask questions! About water, moisture and mold
✓ Write down notes about what you learn
  ✓ Have you noted any issues?
  ✓ How long?
✓ Who, what, when, where
Assessing for the Presence of Mold

✓ Is there an odor
  ✓ Describe it
  ✓ How intense is it?
  ✓ How long has it been there?
Where to look

Areas that are always or often damp, such as bathrooms, laundry/utility rooms, and basements, are common locations for mold growth in homes.
Assessing for the Presence of Mold

✓ Where you can’t look
  ✓ Hidden mold growth
  ✓ This is a “Non-Invasive” survey
Assessing for the Presence of Mold

✔ When you find mold
  ✔ Describe it
  ✔ Assess the size of the area - measure it!
  ✔ Document the location
Assessing for the Presence of Mold

✓ Validation

✓ Independent review and validation
Next Steps

1. Recognition
2. Evaluation
3. Control
Part 2: TOOLS for collecting voluntary resident health information
Healthy Housing Inspection Manual

An initiative of the Center for Disease Control (CDC) and the US Department of Housing and Urban Development (HUD)
Voluntary Health Assessment Data
Suggested Questions from the CDC/HUD Healthy Housing Inspection Manual

1. Have you or anyone in the home had any of these conditions in the last 12 months or since you moved into this house/unit?

2. Do any of these symptoms worsen when you enter the house/unit or while you are there?

3. Do they improve after leaving? If yes, please describe.
Voluntary Health Assessment Data

- Doctor-diagnosed asthma
- **Asthma symptoms** (cough, wheezing, shortness of breath, chest tightness, and phlegm without a cold or respiratory infection)
- Chronic bronchitis
- **Ear infections** (three or more)
- Eye irritation
- Allergies

- Frequent headaches or migraines
- Hay fever
- Respiratory disease
- Sinus problems
- Skin infection/rash
Voluntary Health and Housing Assessment Form

Residents: Please note that this information is only being collected to help obtain funding for mold remediation in our tribal housing and as such, we ask you not to include your name or your family's names. This is a voluntary form and will only be used to show that mold in our tribal housing may be affecting the health of our residents.

Thank you.

1. Have you or anyone in the home had any of these conditions in the last 12 months or since you moved into this house/unit? Check all that apply.
   - Doctor-diagnosed asthma
   - Asthma symptoms (cough, wheezing, shortness of breath, chest tightness, and phlegm without a cold or respiratory infection)
   - Chronic bronchitis
   - Ear infections (three or more)
   - Eye irritation
   - Allergies
   - Frequent headaches or migraines
   - Hay fever
   - Respiratory disease
   - Sinus problems
   - Skin infection/rash

2. Do any of these symptoms worsen when you enter the house/unit or while you are there?

3. Do they improve after leaving? If yes, please describe.

Download a copy of the CDC/HUD form at:
www.thhnw.org
**Environmental History Form for Pediatric Asthma Patient**

Specify that questions related to the child's home also apply to other indoor environments where the child spends time, including school, daycare, car, school bus, work, and recreational facilities.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Not sure</th>
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<tbody>
<tr>
<td>Is your child's asthma worse at night?</td>
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<td>Is your child's asthma worse at specific locations?</td>
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<td>If so, where?</td>
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<td>Is your child's asthma worse during a particular season?</td>
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<td>If so, which one?</td>
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<td>Is your child's asthma worse with a particular change in climate?</td>
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<td>If so, which?</td>
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<tr>
<td>Can you identify any specific trigger(s) that makes your child's asthma worse?</td>
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<td>If so, what?</td>
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<td>Have you noticed whether dust exposure makes your child's asthma worse?</td>
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<td>Does your child sleep with stuffed animals?</td>
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<td>Is there wall-to-wall carpet in your child's bedroom?</td>
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<td>Have you used any means for dust mite control?</td>
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<td>If so, which ones?</td>
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<td>Do you have any furry pets?</td>
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<td>Do you see evidence of rats or mice in your home weekly?</td>
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<td>Do you see cockroaches in your home daily?</td>
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<tr>
<td>Do any family members, caregivers, or friends smoke?</td>
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<td>Does this person(s) have an interest or desire to quit?</td>
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<tr>
<td>Do your child/teenager smoke?</td>
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<td>Do you see or smell mold/mildew in your home?</td>
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<td>Is there evidence of water damage in your home?</td>
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<td>Do you use a humidifier or swamp cooler?</td>
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<tr>
<td>Have you had new carpets, paint, floor refinishing, or other changes at your house in the past year?</td>
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<td>Does your child or another family member have a hobby that uses materials that are toxic or give off fumes?</td>
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<td>Has outdoor air pollution ever made your child's asthma worse?</td>
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<td>Does your child limit outdoor activities during a Code Orange or Code Red air quality alert for ozone or particle pollution?</td>
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<td>Do you use a wood burning fireplace or stove?</td>
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<td>Do you use unvented appliances such as a gas stove for heating your home?</td>
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<td>Does your child have contact with other irritants (e.g., perfumes, cleaning agents, or spray)?</td>
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</table>

What other concerns do you have regarding your child's asthma that have not yet been discussed?

Reference: Environmental Management of Pediatric Asthma Guidelines for Health Care Providers. www.neefusa.org/health/asthma/asthmaguidelines

Download a copy of this form at:

Part 3: RESOURCES on remediation and prevention
Healthy Housing Inspection Manual

An initiative of the Center for Disease Control (CDC) and the US Department of Housing and Urban Development (HUD)
About the manual...

- A resource that is *voluntary*.
- Does not establish any requirements.
- Provides general guidelines meant to be adapted by communities.
- A good starting point for assessing homes using industry-recognized best practices.
• **HUD:** *Healthy Homes Mold/Moisture Website*
  

• **EPA:** *Indoor Environments Division Mold Website*  
  [www.epa.gov/mold](http://www.epa.gov/mold)
# RESOURCES FOR INSTITUTING MOLD AND MOISTURE PROGRAMS

## WANT BUILDING AND CONSTRUCTION GUIDELINES?

<table>
<thead>
<tr>
<th>Resource</th>
<th>Link</th>
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<tbody>
<tr>
<td>Moisture Control Guidance for Building Design, Construction and Maintenance</td>
<td><a href="http://www.epa.gov/iaq/moisture">www.epa.gov/iaq/moisture</a></td>
</tr>
<tr>
<td>Indoor airPlus</td>
<td><a href="http://www.epa.gov/iap">www.epa.gov/iap</a>  <a href="http://www.epa.gov/indoorairplus/pdfs/construction_specifications.pdf">www.epa.gov/indoorairplus/pdfs/construction_specifications.pdf</a></td>
</tr>
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## WANT TO REVIEW THE SCIENCE?

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<th>Resource</th>
<th>Link</th>
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## WANT TO GET TRAINING?

<table>
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<tr>
<th>Resource</th>
<th>Link</th>
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<tbody>
<tr>
<td>Online mold course – Introduction to Mold and Mold Remediation for Environmental and Public Health Professionals</td>
<td><a href="http://www.epa.gov/mold/moldcourse/index.html">www.epa.gov/mold/moldcourse/index.html</a></td>
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## GENERAL RESOURCES

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Download a copy of this form at: [WWW.THHNW.ORG](http://WWW.THHNW.ORG)
Part 4: QUESTIONS
Next Week’s Webinar:
Crafting a Remediation and Prevention Plan for Your Tribe or Village

Friday, May 15th
10:00am – 11:30am PDT
TO CONTACT US...

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