“Mold in Tribal Housing:
A Dialogue about Prevention, Funding & Cold Climate Issues
agenda for today’s webinar...

10:00 – 10:30 **Best Practices for Mold Prevention** - Clinton Holzhauer, Certified Microbial Consultant, Indoor Air Quality Services, EHS Intl., Inc.

10:30 – 11:00 **Cold Climate Issues** – Rich Seifert, Professor, University of Alaska Fairbanks, Energy and Housing Specialist

11:00 – 11:15 **Funding Sources for Mold Investigations, Assessments and Remediation** – Gillian Mittelstaedt, NW Tribal Healthy Homes Working Group

11:15 – 11:30 **Questions & Discussion**
Today’s Speakers:

**Clinton Holzauer:** Certified Microbial Consultant (CMC), Indoor Air Quality Services, EHS International, Inc. Clinton Holzhauer is a LEED™ Accredited Professional (AP) and a Certified Microbial Consultant (CMC), with fifteen years of indoor air quality assessment experience.

**Rich Seifert:** Professor, University of Alaska Fairbanks, Energy and Housing Specialist. Rich has been the Cooperative Extension Service "Energy guy" at UAF in Fairbanks for 27 years. He has a Bachelor's degree in Physics from West Chester State University in Pennsylvania, and a Master's Degree in Engineering Physics from the University of Alaska.
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<th>Funding Sources to Address Mold &amp; Moisture</th>
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<td><strong>Funding for Housing/Structural Assessments</strong></td>
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<td><strong>Funding for Weatherization, Energy Efficiency &amp; Ventilation Improvements</strong></td>
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<td><strong>Funding for Mold Remediation &amp; Housing Rehabilitation</strong></td>
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G. Mittelstaedt - NW Tribal Healthy Homes Working Group
“Assessment” funding may enable tribes to...

Train staff to perform **visual IAQ assessments**

Train staff or contract out to have **instrument-based assessments performed**

Contract with Community-Based Non-Profit (e.g., RuralCAP, American Lung Association) to **perform assessments**

Conduct **community-based surveys** of IAQ-related health concerns
Weatherization & Energy Efficiency Grants may enable tribes to...

- Perform energy audits on tribal housing
- Retain the services of a qualified building inspector to perform energy audits or inspections...
- Evaluate home-heating technologies, costs and alternatives for tribal housing
- Repair, upgrade and/or install housing materials (e.g., caulking, weather strips, fans, insulation)
Housing Rehabilitation and Mold Remediation Grants may enable tribes to...

- Assess, evaluate and prioritize tribal homes in greatest need of remediation or rehabilitation
- Pay for repairs associated with mold contamination, including replacement of drywall, framing, subfloor, window frames, siding, baseboards, etc.
- Pay for ventilation improvements to control humidity-induced mold contamination, such as installation of spot ventilation.
- Pay for occupants to be temporarily re-located while housing repairs take place
Funding for Mold Remediation & Housing Rehabilitation

Funding for Energy Efficiency & Ventilation-Related Improvements

Funding for Housing/Structural Assessments
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<th>AGENCY</th>
<th>GRANT OR PROGRAM</th>
<th>ASSESSMENTS</th>
<th>RELATED IMPROVEMENTS</th>
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<td>Title VI Federal Guarantees for Financing Tribal Housing Activities</td>
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AND A FEW WORDS ON THE HEALTH EFFECTS OF MOLD...
Types of effects:

1. **Irritant**
   - Exposure can irritate eyes, skin, nose, throat, and lungs, in allergic and non-allergic individuals
   - Effect is dose-related and usually transient

2. **Allergen**
   - Common symptoms: runny nose, itchy eyes, sneezing, sore throat, nasal congestion, eczema, dermatitis
   - In high concentrations, molds can trigger symptoms in individuals with no known allergies
   - Long-term exposure can sensitize an individual, inducing allergies and airway-reactivity
Types of effects:

3. Infectious
   - Direct infection occurs when pathogens attack immune-compromised individuals
   - Aspergillus fumigatus, for example, known to cause aspergillosis (ABPA)

4. Toxic
   - Toxic molds produce chemicals called mycotoxins
   - Certain species (e.g., stachybotrus, fusarium, trichoderma) are known carcinogens
   - Mycotoxins readily absorbed by intestinal lining, airways, and skin.
   - Presence of toxic molds usually associated with long-standing water problem.
Who is most at risk?

- **Individuals with lower-airway diseases** *(asthma, chronic bronchitis)*
  - Molds directly tied to presence, persistence and increased severity of asthma episodes
- **Individuals with allergies** *(upper respiratory)*
- **Young children** *(birth to age 2 – critical window)*
  - Allergic sensitization/genetic predisposition
  - Incidence of RSV
- **Elders**
- **Individuals with compromised immune systems**