IAQ Considerations to Assist Tribes in Re-Opening Tribal Buildings: An Overview of COVID in the Workplace and Funding for Tribes

July 29, 2020
Webinar Agenda:

1. **Welcome and Introductions**: Ernie Grooms, NTAA IAQ Work Group Lead
2. **An Overview of COVID in the workplace & Indoor Air Quality Considerations**:
   a. An Indigenous Perspectives on COVID: Philmer Bluehouse, Traditional Diné Peacemaker
   b. Latest science review: Mansel Nelson, Institute for Tribal Environmental Professionals
   c. Summary of Recommendations: Holly Thompson Duffy, Environmental Health Consultant for the Northwest Portland Area Indian Health Board
3. **Funding for Tribes to re-open the workplace**
   b. Indoor Air Funding Directory for Tribes: Gillian Mittelstaedt of the Tribal Healthy Homes Network
   c. Overview of HUD Funds: Danielle Schopp from the U.S. Department of Housing and Urban Development’s Office of Native American Programs (HUD ONAP)
   d. Overview of EPA Indoor Air Quality Resources: Pat Childers and Nate McMichael, EPA’s Office of Air and Radiation (EPA OAR)
4. **Review Attendee Questions and Discussion**: Andy Bessler, NTAA Project Director
An Overview of COVID in the workplace & Indoor Air Quality Considerations:

Reopening Businesses & Offices Amid the COVID-19 Pandemic

Holly Thompson Duffy, NW Portland Area Indian Health Board
Reopening Decisions

• Guided by cultural values, non-maleficence, & grounded in public health principles

• Risks vs. benefits

• Identifying & meeting “gating criteria”
  • Downward trajectory of cases (or other comparable metrics/benchmarks suggesting reduced risk)
  • Health care capacity
  • Public health capacity
  • Rapid testing/diagnostic capacity
Environmental Public Health Risk Assessment Tool

Formal process for evaluating risks & hazards:
• To identify high risk operations
• Develop & implement mitigation measures
• Monitor & evaluate risk over time

How it works:
• Measure the likelihood of COVID-19 disease transmission
• Measure the consequences of health, social, political and economic impacts

Risk = Likelihood x Consequence

Mitigation Measures:
Modified Hierarchy of Controls

- Physical Distancing
- Engineering Controls
- Administrative Controls
- PPE
# Prioritize Based Off Risk Level

<table>
<thead>
<tr>
<th>BUSINESS</th>
<th>RISK FACTORS</th>
<th>CONSEQUENCE</th>
<th>RISK RATING</th>
<th>RISK CATEGORY</th>
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<tbody>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td></td>
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<tr>
<td>Restaurant, embedded within a Casino, with exterior and interior entry/exit</td>
<td>Time</td>
<td>Distance</td>
<td>Size of Population</td>
<td>Public Health Factor*</td>
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<tr>
<td>Restaurant, embedded within a Casino, with exterior and interior entry/exit</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Casino</td>
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<tr>
<td>Restaurants (stand alone)</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Salon, spas, saunas and other personal care</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Gym/Fitness centers</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Museums</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hotels</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Campgrounds</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Outdoor venues (concerts, sports, Pow Wow)</td>
<td>2</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

**Monitoring & Evaluation Frequency**

- **LOW**
  - III: 0 - 33%
  - Once a month

- **MEDIUM**
  - II: 34 - 66%
  - Bi-weekly

- **HIGH**
  - I: 67 - 100%
  - Once a week
Exposure Risk Varies by Job

Define level of risk for each job:

- **Very High**- jobs with high potential exposure to known or suspected sources of COVID-19 during medical procedures
  - Ex: doctors, nurses, EMTs, laboratory staff, dentists
- **High**- jobs with high potential exposure to known or suspected COVID-19 sources
  - Ex: others who work at healthcare facilities like pharmacist or support staff

Exposure Risk Varies by Job

Most workers fall into one of these levels:

• **Medium**- jobs that have frequent and/or close contact with the public, clients or coworkers who may be infected but are not known to be
  • Ex: grocery store clerks, food service workers, counselors, hair salons, teachers

• **Low (caution)**- jobs that can maintain 6’ from others for most of the day
  • Ex: offices where desks are 6’ apart

Before Opening: Comprehensive Prevention & Control Plan

- Employee Health & Safety & Leave
- Cleaning & Disinfecting
- Hygiene & PPE
- Physical Distancing
- Training & Communication
- Daily Health Screening
- Travel
- Monitoring & Evaluation
Before Opening: Building Safety

• Conduct comprehensive Environmental Health & Safety Inspection
• IAQ specific considerations:
  • HVAC system efficiency and function
  • HVAC filter (replace and/or upgrade)
  • Ventilation
  • Others: rodents, sewer gases, identifying leaks & mold, flush pipes
# ACH & Time Required for Airborne-Contaminant Removal by Efficiency

<table>
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<tr>
<th>ACH</th>
<th>Time (mins.) required for removal 99% efficiency</th>
<th>Time (mins.) required for removal 99.9% efficiency</th>
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<td>12+</td>
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<tr>
<td>15+</td>
<td>18</td>
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<td>14</td>
<td>21</td>
</tr>
<tr>
<td>50</td>
<td>6</td>
<td>8</td>
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</tbody>
</table>
Cleaning & Disinfecting

- **FIRST** clean **THEN** disinfect
- Use EPA List to select products for use
- Read & follow all label directions for mixing, applying, storage & disposal
- Safety during application
- IAQ concerns with bleach and other harsh chemicals

Tools to Improve IAQ

- Upgrade Filter (MERV 13-16; HEPA)
- Air purifiers (True HEPA)
- UV Air Sanitizer
- Electrostatic Disinfectant Sprayer
Facility Specific IAQ Considerations

- Gaming Operations
  - Smoking
- Health Care Facilities
  - Ventilation
  - Air exchanges (ACH)
- Cleaning products
- PPE
- Childcares & Schools
  - Cleaning products
NPAIHB Tools for Reopening

• Risk Analysis Tool & Guidance
• Guidelines & Checklists by facility type:
  • Food service operations
  • Gaming operations
  • Tribal Office & Admin operations
• “Return to Work” PPT presentation (customizable) & handout
• Air Purifier Consumer Guide
• Cleaning & Disinfecting Factsheet
Guidance on Reopening Tribal Communities and Economies

- Returning to Work Amidst the COVID-19 Pandemic (PowerPoint with Audio)
- Returning to Work Amidst the COVID-19 Pandemic (Text Summary)
- Facility Risk Analysis Reopening Tool
- Guidance on Using the Facility Reopening Risk Analysis Tool
- Reopening Gaming Operations Specific Considerations
- COVID-19 Checklist – Gaming Fillable
- Reopening Food Service Specific Considerations
- COVID-19 Checklist – Food Service Fillable
- Guidelines for Reopening Tribal Offices and Administrative Operations
- COVID-19 Checklist – Tribal Offices and Administrative Operations
- Clinical and Epi Risk Assessments for Reopening
Resources for More Information:

- NPAIHB: http://www.npaihb.org/covid-19/
- ASHRAE: www.ashrae.org
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