Reducing Toxic Exposures And Improving Community Health With University-Tribal Partnerships

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Collaborative on Health and the Environment Webinar

Improving Health Outcomes at the Community Level: Chemical Risk Assessment Methods in Light of Lessons Learned with COVID-19
OUTLINE

1. COVID-19 increased national awareness of systemic racial inequities

2. Evolving chemical risk analysis and risk management methodology

3. Partnering to improving community health
COVID-19 increased national awareness of systemic racial inequities
Disproportionate impact of COVID-19 on Indigenous communities highlights longstanding root causes

- Genocidal Policies
  - Forced relocation (Reservations)
  - Land seizures (Termination & Assimilation)
  - Intergenerational trauma (Boarding Schools)
- Structural Racism & Poverty
  - Disproportionate Social Stress
  - Limited resources
  - Geographical isolation & Marginalization

HOW TO SLOW THE SPREAD OF COVID-19

STEP 2
Put on a mask. Cover entire nose, mouth, and chin. No gaps between mask and face.
Of the 1,344 listed Superfund sites 13% have a Federal Indian Reservation located within 10 miles. This affects 152 Federally-recognized Tribal Nations in the contiguous United States.

Tristan Campbell Pollution in Indian Country - [https://storymaps.arcgis.com/stories/911527fd54c14632a61937ed833999f6](https://storymaps.arcgis.com/stories/911527fd54c14632a61937ed833999f6)
Traditional Knowledge

First Foods Upland Vision

Confederated Tribes of the Umatilla Indian Reservation
Department of Natural Resources

Bryan A. Endress, Eric J. Ouammpets, Shawn Steinmetz
April 2019

Vision
To ensure healthy, resilient and dynamic upland ecosystems capable of providing First Foods that sustain the continuity of the Tribe’s culture.
Evolving chemical risk analysis and risk management methodology
Chemical Risk Assessment and Risk Management

Assessment

- Hazard Identification
  - Tribal resource use
- Exposure Assessment
  - Tribal exposure scenarios
- Dose-Response Assessment
  - Human health impacts
  - Ecological Impacts
  - Economic Impacts
- Risk Characterization

Management

- Engineering Controls | Administrative Controls

Tribal exposure scenarios

Human health impacts

Ecological Impacts

Social & Cultural Impacts

Economic Impacts
Values and Beliefs

Points of Culture and Health

- Language and Symbolism
- Artifacts
- Relationships
- Ceremonies and Customary Practices
- Food and Food Sovereignty
- Oral Histories and Folklore/Epistemology
Hanford Nuclear Reservation Examples

- White Bluffs Fishing Camp
- Gable Mountain and Gable Butte are Traditional Cultural Properties
- 100K Reactor Area was co-located with a Tribal burial area

A Systems Approach to Risk Assessment
"Ability to follow my traditional practices as healthfully as possible in the modern world."

Identify what is “at risk”
- Natural Resources
- Cultural Resources
- Human systems
- Existing stressors

Hazard Identification
- Probability and Severity

Ecological Exposure
- Ecological toxicity and sensitivity

Human Exposure
- Biological toxicity and sensitivity

Cultural Exposure
- Cultural toxicity and sensitivity

Risk Characterization
- Specific to the Affected People and their Eco-cultural Systems

Risk Communication and Management
- Tailored to the affected people and remedies restore Indigenous Health and eco-cultural systems

Partnering to improving community health
Cultural Competency and Engagement with Tribal Nations

- Meaningful consultation under Executive Orders 13175 (2000) and 13604 (2012) outline fundamental principles of Agency interaction with Tribal Nations as:

“(b) Our Nation, under the law of the United States, in accordance with treaties, statutes, Executive Orders, and judicial decisions, has recognized the right of Indian tribes to self-government. As domestic dependent nations, Indian tribes exercise inherent sovereign powers over their members and territory. The United States continues to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, tribal trust resources, and Indian tribal treaty and other rights.”
Empowering Communities and Partnerships

• Increase diversity in knowledge, science, and practice
• Increase awareness of best practices for building and maintaining partnerships
• Steps in the right direction
  ▪ Training administrators on how to create MOUs with Tribes
  ▪ Data sharing agreements between scientists and Tribes
  ▪ Tribal community advisory boards
  ▪ Rewarding interdisciplinary and inter-organizational collaborations
  ▪ Increase representation and break down silos
Creating Equitable Research Practices

• Sovereign Nation-Specific Community Empowerment
  § Respecting Indian Tribal self-government and sovereignty
  § Honoring treaty and other rights
  § Granting Indian Tribal governments maximum administrative discretion

• Decolonization Methodology
  § Acknowledging the disenfranchised nature of Tribal history
  § Undoing colonial oppression of points of culture

• Community Building
  § Viewing a community with a strengths-based rather than needs-based approach
  § Explore multiple ways of knowing and walking in the world
  § Interdisciplinary team-based research design, project management and policy-making
Thank you

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