OVERVIEW
On behalf of the Southwest Environmental Health Sciences Center (SWEHSC) and the Tribal Forum Planning Committee, we would like to say ahe’hee’ ‘thank you,’ to the Agnese Nelms Haury Program in Environment and Social Justice for supporting the Engaging Indigenous Voices: On Topics of Environmental Health project.

The 2nd biannual Tribal Environmental Health Sciences Forum was a great success and expanded appreciation and engagement of Indigenous Voices.

The forum bridged diverse knowledge, professions, and tribal communities through broadened skills and understanding of environmental science and health.

The following pages include a brief overview of the 2017 Tribal Environmental Health Forum evaluations administered at the end of the event. The evaluation was discussed by the planning committee, which arrived at ways to address the deficits found. Evaluation responses are summarized, context and descriptions are provided with suggested improvements for future event activities and sessions.

Ingrique Salt

Contact Tribal Liaison, IngriQue Salt at salt@pharmacy.arizona or Community Engagement Director, Marti Lindsey at lindsey@pharmacy.arizona.edu
University of Arizona College of Pharmacy, Southwest Environmental Health Sciences Center (SWEHSC), located in the Skaggs Building, Room 313, 1703 E. Mabel, PO Box 210207, Tucson 85721-0207.
For Further information, you may contact our office at 520. 626.5708
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Conference Structure

The forum format brought nearly 160 individuals from various backgrounds, communities, expertise and departments to convene in one large room, which created a safe and intimate setting. Approximately 43 experts and 20 students presented and shared knowledge, models, opportunities, and ways of problem solving through panel sessions addressing environmental health impacts. Following presentations, attendees engaged in small group discussions about how global climate change, air quality, water quality, and agricultural changes affect human health (see appendix for full agenda on page).

Participants were encouraged to utilize a mind map format provided to develop action plans. The objective of the mind map is to trace areas of consideration they planned to discuss with members of their local communities. The image to the right shows an example of a completed mind map.

The goal of the agenda design was to allow attendees to become more familiar with the connection between the environment and their health. Evaluations showed that 96% of the attendees was successful in bridging knowledge between the two. Evaluations also revealed that presentations and activities were well received.

Attendees enjoyed the talk, “Sacred Wisdom: A Pathway to Environmental Health and Sustainability,” by Dr. Tommy Begay (top left photo). His words transcended connections between the importance to be mindful of the health of one’s own mental, physical, spiritual and emotional wellbeing through Diné philosophy and teachings. In addition, attendees enjoyed a
young professionals panel session with Tribal Royalty (top right photo) that engaged young female tribal ambassadors to voice their platforms in how they have motivated their community to improve environmental conditions.

The Funding and Project Opportunities session was the least popular. One suggested improvement is for presenters to share links and resources so that attendees can take them back to their communities.

Session topics of the 2017 Tribal Forum were well received by the attendees with a large majority indicating that they enjoyed the various topics. All sessions combined, only 13% indicated that they did not enjoy a topic. The five most favorite session topics are as follows:

A. The Protecting Our Lands, and Environmental Stewardship;
B. Water Quality & Health Impacts;
C. Global Climate Change & Health Impacts;
D. Air Quality & Health and Agricultural Changes & Impacts on Health of Tribal Communities.

Most Valued
The participants had a wide range of responses about what they thought was the most valuable part of the Tribal Forum. The most common response was presentation/activities where youth were involved such as the youth panel, youth participants, and the evening poster session.

Attendees felt that table activities for each session were valuable. Participants enjoyed being able to interact with each other and share information and ideas. One of the other most common responses addressed community. Attendees enjoyed hearing about other communities and how they are addressing environmental health issues, how communities can work together, and how they can bring back and share what they learned with their own community.

This was a highly informative interaction that circulated what is happening in various communities in a clear and concise manner by sharing resources, different methods and approaches to address community environmental health issues. This allowed for improvements to information access and cultivating ideas to collaborate on common driving factors that can be implemented and was expressed as “better ways of knowing information.”
An overall value that was demonstrated throughout the forum was the holistic planning, approaches and provided presenters and panelists. Holistic by incorporating four aspects - mental, emotional, physical and spiritual states, values, and respective field of studies.

Participants
The forum brought together various tribal nations, departments and institutions that allowed for a larger pool of resources to be shared among participants.

Over 20 tribes were represented:
Ak-Chin Indian Community
Cherokee Nation
Choctaw of Oklahoma.
Colville Confederated Tribes
Duckwater Shoshone Tribe
Fort McDowell Yavapai Nation
Gila River Indian Community
Hopi Tribe
Muskogee
Navajo Nation
Onondaga
Pala Band of Mission Indians
Pascua Yaqui Tribe
Piscataway Tribe
Pointe-au-Chien Tribe
Pueblo of Isleta
Salt River Pima-Maricopa Indian Community
San Carlos Apache Tribe
Swinomish Indian Tribal Community
Tohono O’odham Nation
White Mountain Apache Tribe
Wyandotte
Yavapai-Apache Nation

Throughout the forum, three (3) tribal leaders, Stephen Roe Lewis, Governor of the Gila River Indian Community, Gabriel L. Lopez, Vice-Chairman of the Ak-Chin Indian Community and Maria Dadgar, Director of the Inter Tribal Council of Arizona, Inc. were able to attend and share motivating words about the importance of maintaining healthy communities.

Youth:
High School, Tribal College and University students presented posters at the evening event. Their work reflected on going environmental health research. Student came from:
<table>
<thead>
<tr>
<th>Academic Institution</th>
<th>Poster Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coconino High School</td>
<td><em>Water Quality</em></td>
</tr>
<tr>
<td>Tucson High Magnet School</td>
<td><em>Wildlife Use of Man-Made trails vs. Natural Corridors in Sabino Canyon</em></td>
</tr>
<tr>
<td>Pima Community College</td>
<td><em>Sonoran Desert Animals Environmental Changes</em></td>
</tr>
<tr>
<td>Retired Veteran</td>
<td><em>First Strike – A Prostate Cancer Survivor Story</em></td>
</tr>
<tr>
<td>Northern Arizona University</td>
<td><em>Environmental Endocrinology Lab: How Environmental Contaminants May Act as Endocrine Disruptors that Affects Development and Adul</em></td>
</tr>
<tr>
<td>University of Arizona</td>
<td><em>Is Drinking from Streams and Untreated Water Safe?</em></td>
</tr>
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<td></td>
<td><em>Asthma and Allergy Museum Walk Progression</em></td>
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<td></td>
<td><em>How Traditional Ecological (TEK) Enhances Research in Native American Communities</em></td>
</tr>
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<td></td>
<td><em>Internship Experience</em></td>
</tr>
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<td></td>
<td><em>The effects of increasing temperatures on photochemical smog in the Phoenix Metropolitan area during 1984 to 2016</em></td>
</tr>
<tr>
<td></td>
<td><em>Educational modules for mining-impacted tribal communities</em></td>
</tr>
<tr>
<td>UA Professor</td>
<td><em>Community Driven University Partnerships to Assess Exposures and Risks</em></td>
</tr>
</tbody>
</table>

*See appendix for listing of poster presentation abstracts*

In addition to the 15 student poster presenters, the youth who attended included seven high school students who are members of the Ak-Chin Indian Community Youth Council and five Protecting Our Lands Youth. Tribal ambassadors were Miss Native American University of Arizona, Miss Tohono O’odham Nation 1st Attendant, Miss Indian Arizona State University, and Miss Gila River Indian Community.

**Tribal Organizations:**
Alejandro Higuera Films.
Department of Environmental Community Health
Earth Vision Science
Indigenous Food and Agriculture Initiative
Indigenous Strategies, LLC
Indigenous Vision
Institute for Tribal Environmental Professionals
Inter Tribal Council of Arizona, Inc.
Native Seeds/SEARCH
Swinomish Indian Tribal Community Technology, LLC
Tohono O’odham Urban Community

**Tribal Departments and Partners:**
Ak-Chin Indian Community Environmental Protection Department
Fort McDowell Yavapai Nation Environmental Department and Environment and Sustainability
Gila River Indian Community Department of Environmental Quality
Health Services Division
Maricopa County Department of Public Health.
Pascua Yaqui Tribe
San Carlos Apache Environmental Protection Agency
San Xavier Cooperative Farm
San Xavier District
State Procurement Office
Tohono O’odham Department of Natural Resources and the Water Resources Department
White Mountain Apache Tribe Environmental Protection Office
Yavapai-Apache Nation Utility Authority

**University of Arizona** organizations and departments:
Agnese Nelms Haury Program in Environment and Social Justice
American Indian Science and Engineering Society
BIO5 Institute
College of Medicine
College of Pharmacy
Indian into Medicine Program
Native American Student Affairs
Native Nation Climate Adaptation Program
Southwest Climate Science Center
Southwest Environmental Health Sciences Center

**Other school districts and colleges:**
American Indian Education Association Youth
Arizona State University
Columbia University
Johns Hopkins Bloomberg School of Public Health
Mesa Community College
Attendee Backgrounds:
Various student backgrounds including from the medical field, biomedical and environmental researchers, Graduate Assistants, Environmental Interns, Youth Council members, Tribal Ambassadors, and Ph.D. Candidates.

Professional backgrounds were comprised of Chief Scientist and President, Environmental and Health Specialist, Professors, Medical Doctors, Executive Directors, Program Managers and Developers, Farm Managers, Contract Administrators, Outreach Program Coordinators and Directors, Air Quality Specialists, Environmental Education and Outreach Specialists, Learning Specialists, Environmental Coordinators and Technicians, Health Promotion Specialists, Veterinarians, Mineral Resources Administrators, Tribal Liaisons, Water Operation Managers, Attorneys.

Participant Suggestions
Attendees shared various suggestions on the evaluation forms and individual conversations with program organizing committee members. Below are the most common suggestions:

- Increase youth involvement ranging from youth panels, including a youth track to the forum, provide more funding for youth to attend, and inviting more young professionals interested in health and environmental sciences.
- Attendees expressed interest in having more contact information from the presenters and organizations that were participating in the forum.
- Integrate breathing exercises for about a minute every hour to help sustain energy.
- Provide more traditional ways of knowing and cultural activities.
- Allow more time for questions and discussion after each presentation.
- Advertise more funding and resource opportunities.
- Assure the slides are visible from all parts of the room
- Either reduce the number of presentation or allow more time for each presentation.
- Include more tribal leadership involvement.
- For another local tribe to host the next forum, possibly San Carlos or White Mountain.

Logistical Feedback
Facility reviews were more than satisfactory with many attendees sharing that they enjoyed the large open space of the facility. Two areas that need improvement include resolving technical issues and decreasing distractions.
• During the forum one of the projectors did not work properly. Proper equipment set up and contingency protocols will be considered for future forums.

• During the debriefing meeting, the planning committee discussed various ways to reduce or eliminate distractions. The idea generated was to have a dedicated area for networking and discussions. This would allow for further Q & A with speakers. This can be either outside or in another room to avoid presentation disruption.

When asked about whether there was adequate time for networking, most participants responded that there was adequate time.

Meals and refreshments were satisfactory with attendees indicating that they enjoyed what was provided. There were no suggestions for the improvements on the meals and refreshments.

Financial Information
The 2017 Tribal Forum was funded with two grants. The first was from the Agnese Nelms Haury Program in Environment and Social Justice, which supported the SWEHSC Tribal Liaison to organize the event and food and other logistics for the Forum. The second was from supplemental funds provided to the SWEHSC from the National Institute of Environmental Health Sciences, which also supported the time of the Tribal Liaison as well as transportation costs and hotel stays. In addition, the Center for Indigenous Environmental Health Research (CIEHR) provided a generous donation to support the Tribal Forum

To secure seed funds for future Tribal Forums, a registration fee was charged that was reasonable and affordable. Prior to opening registration, a University of Arizona Foundation account was created that allowed funds to be deposited to sustain the forum. The name of the Foundation account is Pharmacy Community Engagement Events.

Attendees responded that the registration and attendance costs were reasonably priced. There were no suggestions on improving the registration or attendance costs. As a side note, 89 participants were provided with registration waivers and 26 attendees had their hotel stays covered by program funds.

Planning Committee - monthly meeting locations varied to ease on travel expenditures for planning partners.

Funding will be sought by the partnership that has agreed to continue to participate and work together to provide this opportunity.

Partnership Recognition
The 2017 Tribal Forum was successful because of a broad partnership of tribal nations, inter tribal entities, and university collaborators. All members were vital in planning and implementing
the forum in a way that promoted collaboration among tribes, universities and environmental health professionals.

- The lead organization that procured the grants to host the Tribal Forum was the Southwest Environmental Health Sciences Center. The Center has provided educational resources to the Tribes in Arizona for fourteen years.
- Tribal departments included: Ak-Chin Indian Community, Environmental Protection Office; Gila River Indian Community, Department of Environmental Quality; Pascua Yaqui Tribe, Health Department; and the Tohono O’odham Environmental Protection Office & Water Resources Department.
- Tribal institutions included: The Inter Tribal Council of Arizona, the Institute for Tribal Environmental Professionals, and Indigenous Strategies.
- University of Arizona collaborators included: The Mel & Enid Zuckerman College of Public Health, College of Agriculture and Life Sciences, and Native Nations Climate Adaptation Program.

When community representation is integrated, the best partnerships are created and most effective engagement events are accomplished.

Planning Process
Some members of the planning committee for the 2015 Tribal Forum agreed to participate in planning the 2017 Tribal Forum. Several other possible planning members were identified from among the tribal departments that collaborate with the SWEHSC. They were contacted by formal invitation to seek interest for planning the second Tribal Forum. Once individuals confirmed participation, the first meeting was held in December 2016, hosted by Ak-Chin Indian Community Department of Environmental Protection. The final meeting occurred in September 2017 at the Huhugam Heritage Center.

Ten months of meetings were held at various locations. Two meetings were held at the University of Arizona. Each meeting lasting approximately four (4) hours. SWEHSC provided vans to help with travel logistics but most of the communities and individuals on the committee provided their own travel. For future Tribal Forums grant writing it will be important to include additional financial support to cover travel expenses of the partners to better support overall planning and coordination.

During ten months of preparation, the planning committee members worked together to find host locations, needed resources were authorized to reduce or waive costs of facilities, and well-established speakers were secured.

Traveling to planning meetings was productive in that tribal communities’ environmental conditions were observed, which was vital in the planning process. Viewing tribal resources, such as departments, how operations were in place, where facilities were located, if there was heavy smog or smoke, if irrigation channels were or were not running, and many other daily living conditions were observed and integrated into creation of the forum agenda. ----- through integrating daily living conditions
Various departments and organizations were included to bridge knowledge of the Environment and Health, and to create “A forum for tribal communities to share strategies and develop action plans for addressing environmental health issues. Target audience: tribal community members, educators, tribal environmental and health professionals, university professionals, and students” – participation certificate.

Brainstorming and creating a foundation of combined purpose and goals was one of the first tasks of the planning committee. Thereafter, possible locations and forum topics were outlined and discussed. All planning members were tribal community members or employees and came to a consensus of topics and values that their tribes share. Topics that promoted understanding of how the environment impacts human health included Climate Change, Air Quality and Water Quality, Agriculture Changes, and values to integrate were health, youth and traditional knowledge. It was also thought that youth sessions should be part of the overall plan.

Tribal communities recognize and respect the need for time and efforts to create healthy communities. Tribal perspectives were included from beginning to end with traditional blessings. To keep the cultural and traditional connections, three presentations were arranged. The first was the opening presentation to prepare attendees mentality with a traditional lens when listening to subsequent session topics. Second was the evening student poster session/reception that brought traditional dancers, singers, storytellers and food to the Gila River Indian Community Huhugam Heritage Center. Third was the closing presentation give forum attendees a sense of why it is important to utilize traditional and cultural practices in everyday planning, professionally and personally.

Future Planning
The planning committee concluded that a biannual forum would be best. The next stage is to locate possible funding opportunities and then to write grant proposals. The SWEHSC will take the lead with a plan to submit future grants collaboratively with tribal communities, tribal members, and / or tribal departments.

Evaluations also asked for suggestions for future forum topics. These suggestions included:

- Research within tribal communities
- Ways for individuals to connect to share tools, funds, and knowledge
- Farming/Agriculture
- Youth projects
- Renewable/Clean energy
- Hazardous waste- cleaning, containing, recycling
- Relationship between science, law, and social sciences
- How tribes develop/implement environmental law
- How to educate youth
- Traditional health and wellness
- Climate change and how to protect yourself from its effects
• EPA/FDA regulations
• Health impact from pesticides
• Water quality
• Tribal sovereignty
• Traditional Ecological Knowledge
• Climate change plans
• Contamination sites
• Depression/suicide
• How to get youth involved

The Empowerment of Bridging Knowledge
Everyday many communities, families, educators, healers, leaders, and artists wake up with an innate feeling to live in a beautiful healthy world. To create beautiful healthy world, a wide spectrum of expertise is needed to give knowledge, insight, and questions necessary to begin positive collaborations to effectively tackle the many issues that exist in our environment. The 2017 Tribal Forum on Environmental Health Sciences was an outstanding illustration of the exciting collaborations that can come about when members of Indigenous communities come together with academia.

Appendix

Agenda
Photos provided on a Google share file here:
https://drive.google.com/open?id=0B1rCDGiiTJPzdnkwU1o5LS1obWM