Exposure to Environmental Changes and Health Issues: The Development of Community-Based Adaptation for Youth

Presentation to:
Tribal Lands and Environmental Forum, 2018

Shanondora Billiot, MSW, PhD
Assistant Professor
sbilliot@illinois.edu

ILLINOIS
School of Social Work
Community-Based Research
100+ Years of Land Change for Southeast Coastal Louisiana

Source: USGS
Indigenous Peoples and GEC

(Source: Indigenous/Aboriginal peoples WORLD MAP by Uiriati Carlos Mota; Horton, 2016; Mclean, 2010)
Indigenous Health Disparities

• Historical events

• Displacement from original environments

• Undervaluing indigenous health practices
United Houma Nation Study

Fieldwork October 2015 – May 2016

IRBs: Washington University and UHN Tribal Council

Fully funded by:
  Center for Social Development, WUSTL

Partnerships
  United Houma Nation Tribal Council
  Dulac Community Center
## Results - Demographics

Average age: 55

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Participants %, (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>43, (156)</td>
</tr>
<tr>
<td>Serious Relationship Status</td>
<td>82, (156)</td>
</tr>
<tr>
<td>High School Degree or above</td>
<td>24, (157)</td>
</tr>
<tr>
<td>Houma French as First Language</td>
<td>61, (157)</td>
</tr>
<tr>
<td>Attended “Indian School”</td>
<td>39, (156)</td>
</tr>
</tbody>
</table>
Demographics: Annual Income (N=157)
I am proud of the heritage of this place. I would continue to live in this place even if I were given the opportunity to leave. My sense of who I am is linked to the environment where I live. I get comfort or peace of mind from this place. I feel I know every rock, nook and cranny around these parts. I feel a deep connection to this place. I feel a sense of responsibility to the people of this place. I feel I have a duty to maintain the land for future generations.

- Agree Very Strongly
- Agree Strongly
- Agree
- Disagree
- Disagree Strongly
- Disagree Very Strongly
Observed Environmental Changes ($N=157$)

- **Changes to the natural waterways**: 56%
- **Sinking of land**: 69%
- **Loss of native vegetation and animals**: 56%
- **Coastal or soil erosion**: 72%
- **Damage to houses and/or businesses from disasters or land…**: 56%
- **Loss of native fisheries**: 42%
Observed Environmental Changes

“Cancer of the Land”

• “they used to have land on both sides. Now its all open. It all washed away. And its getting worse every year”

• “water got black, black and the fish were popping up”
Self-Reported Health ($N=157$)

- Excellent: 11%
- Very Good: 16%
- Good: 32%
- Fair: 27%
- Poor: 14%
Health in past 30 days

- **Physically Ill:** 6.36
- **Mental or Emotional Illness:** 6.5
- **Healthy (Full of energy):** 1.28

**HRQOL Mean Days**

- **Physically Ill:** N=150, 6.36
- **Mental or Emotional Illness:** N=150, 6.5
- **Healthy (Full of energy):** N=157, 1.28
Mental Health

M.I.N.I. Screening & Diagnosis

- General Anxiety Disorder: 28% Screen, 17% Diagnosis
- Depression: 14% Screen, 15% Diagnosis
- PTSD: 24% Screen, 4% Diagnosis

Preliminary Results
Environmental Change Exposure & Health

Interview

“[y]ou think about everybody that's dying down here, so it makes you wonder if our soils are not contaminated or if our air is not contaminated or something and it's slowly killing everybody down here.” (participant 2).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>OR (CI)</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health</td>
<td>1.01 (1-1.02)</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Poor Health Days</td>
<td>1.02 (1-1.03)</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>Poor Mental Health</td>
<td>1.02 (1-1.03)</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Felt Health Impact</td>
<td></td>
<td>.52</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>
Relationship with Mental Health
Themes

Connection to Land
• Traditional ways

Observe Changes in Environment
• Repeated disasters
• Chronic land loss
• Climate change
• Pollution

Causes
• Oil field dredging & drilling
• Dams
• Boat traffic

Discrimination
• “Every year they would burn the marsh when the trapping season closed [...] it would keep the marsh hard.”

• “Ain’t got no price now. Them shrimp used to be like $8 or $7 a pound. Now we got a hard time to get $2 a pound.”

• “We didn’t go to the doctor or anything like that. Oh yes. I believe in those days, but that’s gone.”

• “the water has changed. The area has changed. Oh lord a lot of the coast [...] has changed.”

- Loss of cultural knowledge
- Environmental changes
- Impacts health and livelihood
- Loss of medicines and harvest
Adaptation Strategies

Historic dwellings

Livelihood strategies

Modern dwellings

Regrowth strategies
Gaps for Adaptation Strategies

Governments
Lack of awareness of:
• Traditional ecological knowledge among government planners
• Environmental injustices today are re-traumatization of historical colonization efforts
• Honor tribal sovereignty

UHN Tribal Community
• Lack of awareness of macro adaptation or intervention activities
• Low willingness to participate
Contemporary Trauma is Environmental Degradation

- Discrimination had significant relationships with poor mental health and felt health impact
- “NO INDIANS ALLOWED” in schools, public institutions, restaurants, bars, neighborhoods
• Reciprocity: “Can you help us with our diabetes program?”
• Gathering of minds: elders, Indigenous scholars
• What do we want for the health of our ancestors?
Returning to our roots

October 24-30

Day 1
Sat. Oct. 24
Principal Chief Dardar’s House
Arrival 3:00pm

Day 2
Sun. Oct. 25
Houmas Landing and Old Tunica Trail

Day 3
Mon. Oct. 26
Old State Capitol and LSU

Day 4
Tues. Oct. 27
St. Paul Church and Houmas House

Day 5
Wed. Oct. 28
Cane Bayou

Day 6
French Market, Armstrong Park and French Consulate

Day 7
Fri. Oct. 30
Bayou Terrebonne
Journey will end at 3:00pm at the Water Life Museum

Retracing Migration Route
Ancestors’ Role

- Health is central to ancestors/ancestral practices
  - Vision
  - Sacrifice
  - Happiness
- Ancestors spiritually connect self to land
- Trauma can be healed with ancestral ceremonies
Ceremony

• Ceremony needed to heal trauma
• Ceremony can reconnect and health the environment
• Reconnection to ancestors and present persons needed for health
• Desire to increase and practice more
Provided Space

- Space for being with Mother
- Space for bonding
- Space for culture
Shifts

- Increase Houma Identity/pride
- Increase connection to ancestors
- Increase ancestral practices
- Increase commitment to become a good ancestor
- Increase need to exercise/healthier choices
- Increase awareness of food relationships/addiction
- Increase mindfulness for health
ROTR Identified Barriers

• Disconnection with land and ancestor and OI
• Time/Time management for health
• Awareness of relationship to food
  • DV
• Motivation to change habits/pushing self beyond thresholds
• Eating with others to eat “healthy”
Types of Adaptation Research

- Climate change model analysis
- Rates adaptation options
- Analyzes adaptive capacity
- Community-based adaptation
Adaptation Activities

How likely are you to do the following activities because of your concerns for the environment?

- Write to editor
- Respond to EIS
- Talk to neighbors, friends or relatives
- Attended a community meeting
- Stayed indoors to avoid air pollution
- Contact elected official
- Contact public health or water authorities
- Contact EPA
- Sign petition opposing development
- Attended BP oil spill meetings
- Seek information on environmental issues
- Participate in any local environmental rehabilitation efforts
- Joined a community group
- Modified your home to reduce the effects of pollution or disasters
- Contacted local tribal council representative
- Attended monthly tribal council meeting
Adaptation Activities

- Attended monthly tribal council meeting
- Contacted local tribal council representative
- Modified your home to reduce the effects of...
- Joined a community group
- Participate in any local environmental rehabilitation...
- Seek information on environmental issues
- Attended BP oil spill meetings
- Sign petition opposing development
- Contact EPA
- Contact public health or water authorities
- Contact elected official
- Stayed indoors to avoid air pollution
- Attended a community meeting
- Talk to neighbors, friends or relatives
- Respond to EIS
- Write to editor
Develop and test Intervention

Phase one - Baseline data
- Six districts, UHN members 30+
- Compare d/f subsistence activities

Phase two - Intervention
- Reconnecting youth with traditional ways
RTOR Curriculum

4 individual sessions + 8 group sessions + a 7-day UHN migration route walk
Adaptation = Cultural Revitalization
Acknowledgements

United Houma Nation

University of Illinois

Office of Diversity & Social Justice Education

American Indian Studies & School of Social Work

Doctoral Committee:
Chair, Shanta Pandey, Ph.D., MSW, Co-Chair, Michael Sherraden, Ph.D., Tonya Edmond, Ph.D., Bret Gustafuson, Ph.D., Molly Tovar, Ph.D., and Michelle Johnson-Jennings, Ph.D.

Doctoral Funders:
Kathryn M. Buder Center for American Indian Studies, Washington University

Center for Social Development, Washington University

Minority Fellowship Program, Council on Social Work Education

Indigenous Wellness Research Institute, University of Washington

Yale Group for Study of Native America & Ethnicity, Race, and Migration Program, Henry Roe Cloud Fellowship
Yakoke!

Shanondora Billiot, PhD
Assistant Professor
School of Social Work
University of Illinois
sbilliot@illinois.edu
217-300-6145 (o)