Graduate Student Approaches to Community Engagement: The Northway Experience

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Community Engagement is Fostered by UAF’s IGERT Programs

Marine Ecosystem sustainability in the Arctic and subarctic (MESAS)

Resilience and Adaptation Program (RAP)
Community Based Participatory Research

- Local concerns and questions
- Local information (memories, observations)
- Local influence on design
- Maximize benefit to the community
- Minimize risk to the community

The Northway Village Council has endorsed the work and community members have done much to facilitate a successful study.
It is all about Relationships

• Being respectful
• Being patient
• Sharing
• Listening!
Food Security is a Health Issue for Rural Communities

- Diabetes
- Cancer
- Infection

Nutritional content of muskrat

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size 3 oz. (85g)</td>
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<table>
<thead>
<tr>
<th>Amount per serving</th>
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<tbody>
<tr>
<td>Calories 199</td>
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<tr>
<td>Calories From Fat 90</td>
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<table>
<thead>
<tr>
<th>% Daily Value</th>
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<tbody>
<tr>
<td>Total Fat 10g 13%</td>
</tr>
<tr>
<td>Cholesterol 103mg 34%</td>
</tr>
<tr>
<td>Sodium 81mg 16%</td>
</tr>
<tr>
<td>Total Carbohydrate 0g 0%</td>
</tr>
<tr>
<td>Dietary Fiber 0g 0%</td>
</tr>
<tr>
<td>Protein 26g 51%</td>
</tr>
<tr>
<td>Vitamin A 0%</td>
</tr>
<tr>
<td>Calcium 4%</td>
</tr>
<tr>
<td>Thiamin 6%</td>
</tr>
<tr>
<td>Niacin 41%</td>
</tr>
<tr>
<td>Vitamin C 10%</td>
</tr>
<tr>
<td>Iron 40%</td>
</tr>
<tr>
<td>Riboflavin 47%</td>
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</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet

This nutritional label taken from http://my.net-link.net/~vanese/k/muskrat/rec
Taking Guidance from the Community Develops Trust

- Listening to concerns
- Sharing draft research plans
- Incorporating feedback in design
- Involving participants in plan implementation
Benefits to the Community

• Economic benefit
• Builds local research capacity
• Knowledge is passed on through the community
Benefits to the Graduate Student

- Real world experience
- Extends student's network and creates a lifelong network
- Communication skills
- Broadens perspective
- Compares pragmatism to ideology
- Generates future research questions
- Brings a holistic approach to research
ACUNS Communities of Change Meeting

UAF Student Presentation Topics

• Rural health
• Food security
• Resource management
• Watershed stability
Who We Are is Where We Are

Challenges:
• Differing agendas
• National vs. local
• Different views in the community
More challenges

- Finding time (both participants and researcher)
- University risk aversive bureaucracy
- Compliance (funding)
- Disciplines (threatened)
Funding helps the community

Salaries
Travel
Basic infrastructure
Research dissemination
Acknowledgements

Anna Godduhn, IGERT, Northway
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Jim Allen, CANHR, YK Delta
Craig Gerlach, RISA, Interior Alaska
Tony Gasbarro, U. S. Peace Corps, International
**An integrative health model**

An **Integrated Health Model**. In general, conceptual models of health vary significantly in the extent to which they consider both biomedical and non-biomedical drivers of health (Boon et al. 2004). This figure represents a fully integrative (versus disciplinary) approach. How the environment influences individual and populational health begins with direct environmental influences, e.g., through food and other environmental exposure, but is mediated by a hierarchy of risk factors and influences on life course, from the very broad scale influences of one’s ecosystems, social and economic circumstances, to more fine-scale determinants such as social relationships and living conditions. The health outcomes for the individual then feed back through the system, via health outcomes influencing the disposition of one’s interaction with the community and environment. Figure from (Loring and Gerlach in press) adapted from (Kaplan 2004).
Change and uncertainty

What are the day-to-day and cumulative challenges we face?

Recent impacts

• Climate, weather, seasonality
• Extreme events, storms, fires
• Socio-economic forces
• Regulatory frameworks that conserve or constrain

Cumulative and synergistic effects

• Global climate change is “directional” but the impacts on regions are not so clear or straightforward
• Social and ecological change is unpredictable and difficult to plan for
• What is a driver or tipping point at one scale may be a feedback at another

Slide courtesy of Loring, et al.
Rural-urban vulnerabilities

Subsistence-country food

- Access to country foods is constrained by climate, weather, and regulatory frameworks

Food from rural and urban stores

- Inferior to country foods in many dimensions
- Food security vs. nutritional security
- Links local systems to global food system with risk and vulnerabilities