The Aklavik H. pylori Project’s Knowledge Exchange Program

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Sharing Scientific and Indigenous Ways of Knowing
Ways of knowing

- How do we know what we know?
  - Personal experience
  - Cultural sharing
  - Scientific Method

Stories

Cultural sharing

Personal experience

Scientific method

Being there

Dreaming
“The process of collecting data is often a process of social exchange”
~James Trostle (2005) Epidemiology and Culture

- Knowledge translation
- Knowledge exchange (KE)

KE seeks to address the gap between what is discovered in research and how this knowledge can be translated into actions that lead to improved health
Aklavik, NWT

- Aklavik is an Arctic hamlet in the NWT
- ~625 people
  - Inuvialuit (Inuit) 60%
  - Gwich’in (First Nations) 30%
  - Whites, other FNs, and other minorities 10%
- 68° North
- Not on a road system
- 2 stores, 1 K-12, 1 college, 2 churches
The Aklavik *H. pylori* Project

- The Canadian North *Helicobacter pylori* (CANHelp) Working Group includes:
  - Health and social sciences
  - Indigenous governments
  - Arctic communities
  - Arctic health care providers

- *H. pylori* is a bacterium that lives in the human stomach

- Known to cause ulcers and stomach cancer

- This infection is frequent and chronic in the Arctic
Infection often acquired in childhood
- Often chronic
- Doesn’t make everyone sick
- Some strains of drug-resistant *H. pylori*
- NWT men have 3x stomach cancer compared to Canada’s national average

*H. pylori* prevalence in western Arctic

<table>
<thead>
<tr>
<th>Community</th>
<th>Hp+/n (UBT)</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aklavik NT</td>
<td>234/354</td>
<td>66%</td>
</tr>
<tr>
<td>Old Crow YK</td>
<td>127/186</td>
<td>68%</td>
</tr>
<tr>
<td>Ft McPherson NT</td>
<td>133/220</td>
<td>60%</td>
</tr>
<tr>
<td>Tuktoyatuk NT</td>
<td>58/102</td>
<td>57%</td>
</tr>
<tr>
<td>Norton Sound AK</td>
<td>488/610</td>
<td>80%</td>
</tr>
</tbody>
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Knowledge exchange

- So much “science talk”...where do we even start?

1. Identify community questions and concerns
2. Assess community facilities, resources, local knowledge, local ways of communicating knowledge
3. Assess scientific facilities, resources, knowledge, standard ways of communicating knowledge
4. Learn from each other: let’s have a scientist-community exchange program!
KEP: Knowledge Exchange Program

- September, 2012: An anthropologist (Sally) and a microbiologist (Monika) traveled to Aklavik, NWT
  - Amy served as KEP coordinator
  - Met with Elders, local health committee, and school children
  - Asked what kinds of things about science and health people wanted to know
  - Participated in local cultural events
KEP: Knowledge Exchange Program

- October, 2012: Two Aklavik youth (Bonnie and Prairie Dawn) traveled to U. Alberta in Edmonton
  - Visited the microbiology lab
  - Learned to culture and test bacteria samples
  - Visited doctors to learn the science of stomach cancer and how it is treated
  - Participated in local cultural events
Follow-up: short term

- Bonnie and Prairie Dawn made a Powerpoint to show what they had learned over the week.
- Amy coordinated their activities and provided guidance in developing materials.
- Back home, they edited the presentation to communicate information to the community.
Follow-up: short term

- December, 2012: Bonnie, Prairie Dawn, and Sally attended the ArcticNet conference in Vancouver
- B and PD presented our poster
- We won first place in the student poster competition!
Follow-up: long-term

- March, 2014: B and PD returned to Edmonton and presented to the Circumpolar Students Association and the School of Public Health
- Amy interviewed them: reflecting on their experiences
- They are serving as advisors for how we can expand this type of exchange in other Arctic communities
Reflections: KEP benefits

- Fosters **mutual appreciation** between people of different cultural and educational backgrounds
- Promotes a **shared understanding** of the research process
Reflections: KEP benefits

- **Builds new knowledge** for both urban non-Native researchers and rural Native community members
- **Builds capacity** for both researchers and communities
- Attempts to **address inequalities** in power in the research process
- **Strengthens partnerships** between universities and Arctic communities
Reflection: KEP challenges

- Physical distance
- Social distance
- Time
  - It took a long time (2+ years) for some of the benefits to be realized
Data collection = social exchange

- The greatest challenges occurred when social exchange was hindered by physical or social distance
- KE is important for reducing social inequality in research
- Requires flexible and reflexive social exchange
- Ideally maintained over a long period
Quyanninni! Mahsi cho! Thank you!

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