



Community-driven research to investigate traditional approaches to treating *H. pylori* infection and related disease in remote Arctic communities: A literature review

Megan Lukasewich¹, Janis Geary^{1,2}, Karen J Goodman¹, Aklavik *H. pylori* Project Planning Committee³, CANHelp Working Group¹

1. Division of Gastroenterology 2. School of Public Health 3. Aklavik, Northwest Territories



Introduction

- Community members showed interest in studying traditional medicines for effectiveness in treating *Helicobacter pylori* infection and related stomach disease
- Previous research in this region has demonstrated that *H. pylori* infection is common
- Individuals with the infection experience higher than expected rates of more severe gastric outcomes, and many struggle to complete available pharmaceutical treatment regimens for the infection

Study Setting



- Aklavik is located on the Peel Channel of the Mackenzie River Delta
- Approximately 650 Gwich'in and Inuvialuit residents
- Is a fishing and trapping community, 113km south of the Arctic Coast
- Road access is limited to an ice road in the winter, by boat in the summer, or airplane year round

Research goal

- To integrate traditional approaches to treating stomach ailments with bio-medical, to facilitate adherence to pharmaceutical regimens and in this way improve completion and success rates of conventional medical approaches to anti-*H. pylori* therapy

Acknowledgements

- Alberta Heritage Foundation for Medical Research(AIHS)
- Canadian Institutes for Health Research (CIHR)
 - Institute of Aboriginal People's Health
 - Network Environment for Aboriginal Health Research (NEAHR)
 - Anisabe Kekendazone, Ottawa
 - Nasivvik, Universite Laval
 - Canadian Association for Gastroenterology & Industry Partners
- ArcticNet Network of Centres of Excellence of Canada
- Aboriginal Affairs and Northern Development Canada
- Canadian Circumpolar Institute

Community input workshops

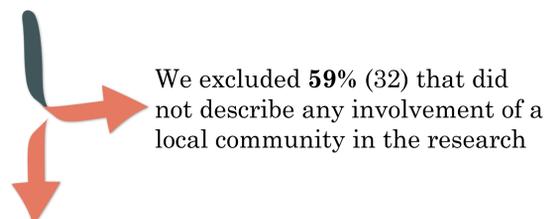
- In June 2015, the Aklavik *H. pylori* Project Planning Committee (comprising CANHelp Working Group staff and community representatives) met to develop research objectives and plans
- The committee identified three main areas of research:



We are looking for collaborators for these projects!

Literature review

- In seven electronic databases, we carried out a comprehensive search of published literature using terms related to:
 - traditional ecological knowledge, Indigenous peoples, plant preparations, ethnobotany, and circumpolar communities*
- We included articles if they focused on a circumpolar Indigenous community and traditional medicines to treat disease
- Our search identified 372 articles, and after removing irrelevant and duplicate articles, we were left with 54 articles



- 22 articles included at least some details that indicated the research followed a community driven or participatory approach
- As expected, no studies focused on *H. pylori* infection or other stomach diseases

	Community or group acknowledged	Consulted community members or organizations	Employed local research assistants	Incorporated Traditional Knowledge into project
# of articles	5	14	3	10

Research Plans

1. Assess knowledge and attitudes

Evaluate the knowledge and attitudes about traditional and biomedical approaches to managing *H. pylori* infection and related illness in the general community

- Interviewer-led surveys
- Community workshops to disseminate results from literature review
- Two-way knowledge exchange in collaboration with local partners

2. Document traditional approaches

Identify and disseminate any previously undocumented traditional approaches to managing stomach illness from local knowledge holders

- In-depth interviews with knowledge holders
- Timelines for collecting plants
- Develop a protocol for plant collection
- Outreach to engage youth in process
- Enable archiving of plant information
- Participatory workshops to disseminate knowledge

3. Evaluate biological activity

- Determine if plants that are used in the community for stomach illness have biological activity
- Local knowledge holders facilitate preparation of plants, and transportation of plant materials to U of A laboratory
- Knowledge exchange workshops



Future directions

- If local medicines are identified that can be safely incorporated as complimentary therapies with biomedical approaches, develop trials to determine if incorporating local medicines can help improve healthcare seeking behaviours and adherence to treatment regimes

