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

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**Introduction**

Community members in Aklavik, NWT have expressed 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.

Our goal is to integrate traditional approaches with biomedical to facilitate adherence to pharmaceutical regimens and in this way improve completion and success rates of conventional medical approaches to anti-*H. pylori* therapy.

**Community input workshops**

In June 2015, the Aklavik *H. pylori* 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:

- Improving access to existing data sources on traditional medicine in the community
- Collecting additional local knowledge of traditional approaches to managing *H. pylori* infection
- Creating new knowledge of how traditional approaches could be incorporated into management of *H. pylori* infection

**Acknowledgements**

- Alberta Heritage Foundation for Medical Research (AHFS)
- Canadian Institutes for Health Research (CIHR)
- Institute of Aboriginal People’s Health
- Network Environment for Aboriginal Health Research (NEAR)
- Anuwhe Kekenikus, Ottawa
- Nauvuk, Université Laval
- w/ Canadian Association for Gastroenterology & Industry Partners
- Aklavik/Dot Network of Centres of Excellence of Canada
- Aboriginal Affairs and Northern Development Canada
- Canadian Circumpolar Institute

**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 of local medicines
- Presentations and two-way knowledge exchange in collaboration with local partners

**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 based on descriptions of *H. pylori*-related symptoms
- Surveys to determine the timelines for collecting relevant plants
- Develop a protocol for plant collection
- Specific outreach to engage youth in process
- Digital archiving of plant information (digital and/or physical herbariums)
- Participatory workshops to disseminate knowledge

**Future directions**

If local medicines are identified that can be safely incorporated as complimentary therapies with biomedical approaches, developing trials to determine if incorporating local medicines can help improve healthcare seeking behaviors and adherence to treatment regimens.

**Research Plans**

- Consulted community organizations
- Incorporated traditional knowledge into project
- Employed local research assistants
- Simple acknowledged a community or group

**Research**

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.

**Literature Review**

We carried out a comprehensive search of published literature using terms related to traditional ecological knowledge, Indigenous, plant preparations, ethnobotany, and circumpolar in seven electronic databases. 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.

We excluded 59% (32) that did not describe any involvement of a local community in the research.

14 studies 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.

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