Learning from one another: the dissemination of microbiology research results in Indigenous Arctic communities through a joint community-university knowledge exchange project


Background

Helicobacter pylori is a bacterium known to cause gastritis, peptic ulcers, and stomach cancer.

Northern Aboriginal populations have a disproportionately high frequency of H. pylori infection and associated diseases.

To address community concerns about health risks, research is currently underway in northern Aboriginal communities located in the Yukon and Northwest Territories, Canada.

The Canadian North Helicobacter pylori (CANHelp) Working Group links community representatives, researchers, and health care providers.

Research aims include describing disease burden and risk factors associated with H. pylori infection, and identifying effective public health strategies for infection control.

An important element of this work is the exchange of knowledge between community members and researchers to support the meaningful movement of knowledge generated through research into implementation by users such as community members and healthcare providers.

Methods

In one participating community (Aklavik, Northwest Territories, Canada), a knowledge exchange project was developed by community representatives and researchers.

As part of this initiative, researchers traveled to Aklavik (S. Carraher and M. Keelan) to meet with community members, share research results, and learn about life in the community.

While there, through the guidance of community members, they recruited two youth (B.L. Koe and P.D. Edwards) to travel to Edmonton, Alberta, Canada to learn about laboratory and other research components conducted at the University of Alberta.

Results

In Edmonton, the two recruited community members applied microbiology methods used to study the antimicrobial susceptibility and genetic characteristics of the H. pylori bacteria, and learned how to interpret the data.

They observed and participated in work conducted by public health researchers and gastroenterologists, and experienced life in Edmonton and at the University of Alberta.

Upon returning to Aklavik, they presented what they had learned to other members of the community, including high school science students.

They also attended a national scientific conference where they shared their experiences with various researchers.

Conclusions and Next Steps

This knowledge exchange initiative permitted the dissemination of research results in a meaningful, culturally appropriate way to community members, and informed future collaborative research methodologies and knowledge dissemination strategies.

This collaborative work fosters a strong community-researcher partnership where knowledge is shared between all participants and health problems are discovered together.

This work will be used as a framework for future knowledge exchange initiatives with other participating communities.

Acknowledgements: Thank you to all communities participating in research on H. pylori in northern Canada, and other members of the CANHelp Working Group.