Community-driven research on H. pylori infection in the Inuvialuit Settlement Region

Summary

Project Leader
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Despite limited systematic data on its presence in northern Canada, Helicobacter pylori infection has been an emerging health concern in northern Aboriginal communities, where people are becoming aware of its health risks. In many such communities, people worry about the link between H. pylori and stomach cancer, a cancer that occurs more frequently in this region than on average across Canada. Physicians in the north view this infection as a major challenge because it is found in many patients with common stomach complaints and standard treatment is often ineffective in this setting. Health authorities have identified the need for research aimed at developing H. pylori control strategies appropriate for the north. This research program seeks to generate knowledge about how health care decision makers can effectively manage H. pylori infection in a manner that addresses community concerns. To achieve these goals, the applicants formed the Canadian North Helicobacter pylori (CANHelp) Working Group, a collaborative team that links the University of Alberta with northern health officials and community organizations.

While the research goals require data from multiple northern settings, the team conducted a pilot project as a starting point in Aklavik, NWT, where they found that 61% of participants had H. pylori infection, and among those infected, there was a high prevalence of precancerous stomach conditions. This research program, developed at the request of the Inuvialuit Regional Corporation, aims to: 1) Expand the research to additional communities in the Inuvialuit Settlement Region to obtain representative data required for developing regional public health strategies pertaining to H. pylori infection; 2) Identify cost-effective and culturally appropriate H. pylori management strategies for northern communities; 3) Create knowledge exchange strategies to help community members understand H. pylori health risks and currently available solutions.

People

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Publications

Articles Published in Refereed Publications


Carraher, S., Chang, H.J., Munday, R., Goodman, K.J. and the CANHelp Working Group., 2013, Helicobacter pylori incidence and re-infection in the Aklavik H. pylori Project, Int J Circumpolar Health, v.72, no.s1, 651-657, Published


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Hastings, E.V., Yasui, Y., Hanington, P., Goodman, K.J. and CANHelp Working Group., 2014, Community-driven research on environmental sources of H. pylori infection in arctic Canada, Gut Microbes, v.5, no.5, 606-617, Published

Keng, A.B., Girgis, S., Chang, H., Geary, J., Veldhuyzen van Zanten, S., Goodman, K.J., and CANHelp Working Group., 2011, Helicobacter pylori colonization density and gastric histopathology in a Northern Canadian community, Poster Presentation, XXIVth International Workshop on Helicobacter and Related Bacteria in Chronic Digestive Inflammation and Gastric Cancer, Dublin, Helicobacter, v.16, suppl.1, 104, Published

Kersulyte, D., Bertoli, M.T., Tamma, S., Keelan, M., Munday, R., Geary, J., Veldhuyzen van Zanten, S., Goodman, K.J. and Berg, D.E., 2015, Amerind H. pylori genome sequences from Arctic Canada, Genome Announcements, Submitted

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Lefebvre, M., Geary, J., Girgis, S., Goodman, K.J., and CANHelp Working Group., 2011, Predictors of severe H pylori-associated gastritis in Arctic Canada, Poster Presentation, 3rd North American Congress of Epidemiology, Montreal, American Journal of Epidemiology, v.173, suppl.11, S228, Published


Other Refereed Contributions

Aplin, L., Fagan-Garcia, K., Geary, J., Goodman, K.J., and CANHelp Working Group., 2011, Household factors associated with H pylori infection in Aklavik, Northwest Territories, Poster Presentation, Canadian Society for Epidemiology and Biostatistics Student Conference, , Accepted


Carraher, S., 2013, Problems with the epidemiological transition model: structural inequality, H. pylori bacteria and stomach diseases in Aklavik, NWT, Int J Circumpolar Health, v.72, no.s1, 742-743, Published


Colquhoun A, Carraher S, Keelan M, Koe BL, Edwards PD, Goodman KJ, and the CANHelp Working Group., 2013, Learning from one another: the dissemination of microbiology research results in Indigenous Arctic communities through a joint community-university knowledge exchange project., Helicobacter v.18, suppl 1, 105, Published


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Colquhoun, A., Aplin, L., Goodman, K.J., Geary, J., Munday, R., Keelan, M., and CANHelp Working Group., 2011, Community-based, participatory research on H. pylori: making microbiology results meaningful to participants, Poster Presentation, 16th International Workshop on Campylobacter, Helicobacter & Related Organisms, Vancouver, , Accepted


Geary, J., Bubela, T., and Goodman, K.J., 2011, Developing Research Agreements between Communities and Academic Researchers: A Case-Study from Northern Canada, Poster Presentation, International Network for Circumpolar Health Research, Oulu, Finland, Accepted

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Hastings, E.V., Aplin, L., and Goodman, K.J., 2011, Community-driven research on Helicobacter pylori infection in Northern Canada, Oral Presentation, INSIGHTS, A Focus on Public Health, School of Public Health Research Day, University of Alberta, Accepted

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Non-Refereed Contributions


Beeson, S., Hastings, E.V., Veldhuyzen van Zanten, S.J.O., Goodman, K.J. and CANHelp Working Group., 2014, Update on Community-Driven Research on H. pylori infection in the Canadian Arctic, Department of Medicine: Research Day, Edmonton, AB. May 15, 2014, Accepted


Colquhoun, A., Carraher, S., Keelan, M., Koe, B.L., Edwards, P.D., Goodman, K.J. and CANHelp Working Group., 2015, Learning from one another: the dissemination of microbiology research results in Indigenous Arctic communities through a joint community-university knowledge exchange project, Wisdom Engaged: Traditional Knowledge and Northern Community Well-Being, Edmonton, AB. February 18-21, 2015, Accepted


Goodman, K.J., 2011, What We Know about How We Get H pylori Infection, Session Starter Talk, 16th International Workshop on Campylobacter, Helicobacter & Related Organisms, Vancouver, Accepted

Goodman, K.J., 2011, Updates on H. pylori Research in Northern Canada, Invited Oral Presentation, Circumpolar H pylori Workshop, Copenhagen, Accepted

Goodman, K.J., 2011, Investigating Gastric Cancer in Northern Canada, Invited Oral Presentation, Circumpolar H pylori Workshop, Copenhagen, Accepted

Hastings EV, Yasui Y, Hangington P, Goodman KJ., 2013, Environmental exposures, Helicobacter pylori infection and gastritis in Canadian Arctic communities., National Gathering of Graduate Students, Vancouver, BC. June 24, 2013., Accepted

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