ArcticNet >P>%C%DT% >PY-d%Nrc

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

Summary

Project Leader

Goodman, Karen

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

Network Investigators

Carraher, Sally - McMaster University
Fletcher, Christopher - Université Laval
Girgis, Safwat - University of Alberta
Goodman, Karen - University of Alberta
Jacobs, Phil - University of Alberta
Jardine, Cindy - University of Alberta
Keelan, Monika - University of Alberta
Veldhuyzen van Zanten, Sander - University of Alberta
Yasui, Yutaka - University of Alberta

Collaborators & Research Associates

Archie, Billy - University of Northern British Columbia

Buckle, Robert - Aklavik Health Committee Chatwood, Susan - University of Toronto

Corriveau, Andre - Government of the Northwest Territories

Edwards, Gladys - Aklavik Health Centre

Engram, Joanne - Beaufort-Delta Health & Social Services

Illasiak, Velma - Moose Kerr School

Morse, John - Stanton Territorial Health Authority

ArcticNet >PPS%C%DT% DPZ&4%Orc

Munday, Rachel - Aklavik Health Centre

Pokiak, Anita - NWT Health and Social Services

Seaman, Leah - Beaufort-Delta Health & Social Services

Storr, Evelyn - Inuvialuit Regional Corporation

Post-Doctoral Fellows

Beesoon, Sanjay - University of Alberta Waye, Arianna - University of Alberta

PhD Students

Burlet, Megan - University of Alberta Colquhoun, Amy - University of Alberta Geary, Janis - University of Alberta Hastings, Emily - University of Alberta Mahmound, Meysoon - University of Alberta

Masters Students

Fagan-Garcia, Katherine - University of Alberta Williams, Kathleen - McMaster University

Undergraduate Students

Ma, Jingyi - University of Alberta Tariq, Hamna - University of Alberta Xie, Xiaoqi - University of Alberta

Technical Staff

Redekop, Richelle - University of Alberta

Project Staff

Aplin, Laura - University of Alberta Chang, Hsiu-Ju - University of Alberta Morse, Amy - University of Alberta

Northern Research Staff

Lakhani, Sabrina - NWT Government

Partners

Aboriginal Affairs and Northern Development Canada
Aboriginal Affairs and Northern Development Canada - Northern Scientific Training Program
Alberta Cancer Foundation
Canadian Institutes of Health Research
Canadian North
Nasivvik Centre for Inuit Health and Changing Environments
University of Alberta



Publications

Articles Published in Refereed Publications

Aplin, L., Fagan-Garcia, K., Chang, H., Geary, J., Goodman, K.J., and CANHelp Working Group., 2011, Household factors associated with Helicobacter pylori infection in Aklavik, Northwest Territories, Canada, Poster Presentation, XXIVth International Workshop on Helicobacter and Related Bacteria in Chronic Digestive Inflammation and Gastric Cancer, Dublin, Helicobacter, v.16, suppl.1, 105, Published

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, 3rd North American Congress of Epidemiology, Montreal, American Journal of Epidemiology, v.173, suppl.11, S230, Published

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

Cheung J, Goodman KJ, Girgis S, Bailey R, Morse J, Fedorak RN, Geary J, Fagan-Garcia K, vanZanten S, CANHelp Working Group, 2013, Helicobacter pylori and Associated Histopathology in a Northern Canadian Aboriginal Community, Helicobacter, , Submitted

Cheung, J., Goodman, K.J., Girgis, S., Bailey, R., Morse, J., Fedorak, R.N., Geary, J., Fagan-Garcia, K., van Zanten, S.V. and the CANHelp Working Group., 2014, Disease manifestations of Helicobacter pylori infection in Arctic Canada: using epidemiology to address community concerns, BMJ Open, v.4, e003689, Published

Colquhoun A, Aplin L, Geary J, Goodman KJ, Hatcher J, 2012, Challenges created by data dissemination and access restrictions when attempting to address community concerns: individual privacy versus public wellbeing, International Journal of Circumpolar Health, vol. 71, 1-7, Published

Colquhoun, A., Aplin, L., Geary, J., Goodman, K.J., and Hatcher, J., 2011, Challenges Created by Data Dissemination and Access Restrictions When Attempting to Address Community Concerns: Individual Privacy versus Public Wellbeing, International Journal of Circumpolar Health, , Accepted

Colquhoun, A., Aplin, L., Geary, J., Goodman, K.J., Hatcher, J., 2012, Challenges created by data dissemination and access restrictions when attempting to address community concerns: individual privacy versus public wellbeing, International Journal of Circumpolar Health, , Accepted

Colquhoun, A., Aplin, L., Goodman, K.J., and Hatcher, J., 2011, Challenges Created by Data Dissemination and Access Restrictions When Attempting to Address Community Concerns: Individual Privacy versus Public Wellbeing., Poster Presentation, 3rd North American Congress of Epidemiology, Montreal, American Journal of Epidemiology, v.173, suppl.11, S286, Published

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, XXIVth International Workshop on Helicobacter and Related Bacteria in Chronic Digestive Inflammation and Gastric Cancer, Dublin, Helicobacter, v.16, suppl.1, 108, Published

Colquhoun, A., Arnold, M., Ferlay, J., Goodman, K.J., Forman, D. and Soerjomataram, I., 2015, Global patterns of cardia and non-cardia gastric cancer incidence in 2012, Gut, , Accepted

Colquhoun, A., Geary, J., and Goodman, K.J., 2013, Challenges in conducting community-driven research created by differing ways of talking and thinking about science: a researcher's perspective, Int J Circumpolar Health, v.72, no.s1, 864-870, Published



Geary, J., Goodman, K.J., Munday, R., Tweedie, K., Fletcher, C., Aklavik Health Committee, and CANHelp Working Group., 2011, Strategies for communicating health research findings to a northern Canadian Aboriginal community, International Journal of Circumpolar Health, , Accepted

Goodman, K.J., Munday, R., Cheung, J., Girgis, S., Geary, J., Keng, A.B., Chang, H., Veldhuyzen van Zanten, S., and CANHelp Working Group., 2011, Symptomatic manifestations of H. pylori-associated diseases in a Northern Canadian community, Poster Presentation, European Helicobacter Study Group Workshop, Dublin, Helicobacter, v.16, suppl.1, 104, Published

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

Lefebvre, M., Chang, H.J., Morse, A., van Zanten, S.V., Goodman, K.J. and the CANHelp Working Group., 2013, Adherence and barriers to H. pylori treatment in Arctic Canada, Int J Circumpolar Health, v.72, 22791, Published

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

Morse A, Goodman KJ, Munday R, Chang H, Morse JW, Keelan M, Geary J, Veldhuyzen van Zanten S, CANHelp Working Group, 2013, A randomized controlled trial comparing sequential to triple therapy for Helicobacter pylori in an Aboriginal community in the Canadian North, Alimentary Pharmacology and Therapeutics, , Submitted

Morse, A.L., Goodman, K.J., Munday, R., Chang H.J., Morse, J.W., Keelan, M., Geary, J., van Zanten, S.V. and the CANHelp Working Group., 2013, A randomized controlled trial comparing sequential with triple therapy for Helicobacter pylori in an Aboriginal community in the Canadian North, Int J Circumpolar Health, v.72, no.12, 701-706, Published

Veldhuyzen van Zanten, S., Aplin, L., Chang, H.J., Morse, A.L., Lazarescu, A., Girgis, S. and Goodman, K.J., 2014, Community-Driven Research on Helicobacter pylori Infection in the Canadian Arctic: the Fort McPherson H. pylori Project, Gastroenterology, v.146, no.5, S-183, Published

Veldhuyzen van Zanten, S., Aplin, L., Chang, H.J., Morse, A.L., Lazarescu, A., Girgis, S., Keelan, M. and Goodman, K.J., 2014, Community H. pylori Project Treatment Trial Results From the Canadian Arctic, Gastroenterology, v.146, no.5, S-400, Published

Wynne, A., Geary, J., Goodman, K.J., and CANHelp Working Group., 2011, Community Knowledge of Helicobacter pylori Infection in Northern Canada, Poster Presentation, 3rd North American Congress of Epidemiology, Montreal, American Journal of Epidemiology, v.173, suppl.11, S229, 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, Chang H, Goodman KJ, CANHelp Working Group, 2012, H. pylori Incidence and re-Infection in a Canadian arctic community, International Journal of Circumpolar Health, , 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

Chang H, Wynne A, Munday R, Goodman KJ, CANHelp Working Group, 2012, H. pylori-associated disease burden in a northern Canadian community: Comparing medical records and community-based screening, International Journal of Circumpolar Health, , Accepted

Chang, H.J., Wynne, A., Munday, R., Goodman, K.J. and the CANHelp Working Group., 2013, Helicobacter pyloriassociated disease burden in a northern Canadian community: comparing medical records and community-based screening, Int J Circumpolar Health, v.72, no.s1, 687-688, 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

Colquhoun A, Carraher S, Papik R, Moses MJ, Edwards J, Munday R, Keelan M, van Zanten SV, Goodman KJ, CanHelp Working Group., 2013, Community-driven research in Northern Canada: local visual representations of a health research project on Helicobacter pylori., Helicobacter, v. 18, suppl 1, 105, Published

Colquhoun A, Geary J, and Goodman KJ, 2012, Challenges in conducting northern community-driven research created by differing knowledge systems and world views: a researcher's perspective., International Journal of Circumpolar Health, , Accepted

Colquhoun A, Jardine C, and Goodman KJ, 2012, Media portrayals of H. pylori and related community-driven research in northern Canada, Pre-Congress Seminar on Health Literacy and Women's Health, 15th International Congress on Circumpolar Health, Fairbanks, Alaska, USA.August 5, 2012; poster presentation, , Accepted

Colquhoun, A., Aplin, L., Geary, J., Goodman, K.J., and Hatcher, J., 2011, Challenges Created by Data Restrictions When Addressing Community Concerns: Individual Privacy versus Public Wellbeing, Oral Presentation, INSIGHTS, A Focus on Public Health, School of Public Health Research Day, University of Alberta, , Accepted

Colquhoun, A., Aplin, L., Goodman, K.J., and Hatcher, J., 2011, Challenges Created by Data Dissemination and Access Restrictions When Attempting to Address Community Concerns: Individual Privacy versus Public Wellbeing, Poster Presentation, International Network for Circumpolar Health Research, Oulu, Finland, , Accepted

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

Fagan-Garcia K, Chang H, Goodman KJ, CANHelp Working Group, 2012, Hygienic behaviors and prevalence of Helicobacter pylori infection in Aklavik, Northwest Territories, Canada, International Journal of Circumpolar Health, , Accepted



Fagan-Garcia, K., Chang, H.J., Goodman, K.J. and the CANHelp Working Group., 2013, Hygienic behaviors and prevalence of Helicobacter pylori infection in Aklavik, Northwest Territories, Canada, Int J Circumpolar Health, v.72, no.s1, 721-722, Published

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

Geary, J., Colquhoun, A., Bubela, T., and Goodman, K.J., 2011, Developing research agreements between communities and academic researchers: A case-study from northern Canada, Poster Presentation, INSIGHTS, A Focus on Public Health, School of Public Health Research Day, University of Alberta, , Accepted

Hastings EV, Aplin L, Goodman KJ, CANHelp Working Group, 2012, Community-driven research on Helicobacter pylori infection in northern Canada, International Polar Year 2012 Conference: From Knowledge to Action, Montreal, Apr 22-27, 2012; poster presentation, , Accepted

Hastings EV, Wynne A, Chang H, Girgis S, Goodman KJ, CANHelp Working Group, 2012, Association between untreated water consumption, H. pylori status and gastritis observed in a northern Canadian community, International Journal of Circumpolar Health, , Accepted

Hastings EV, Wynne A, Chang H, Girgis S, Goodman KJ, CANHelp Working Group, 2012, Untreated water consumption, H. pylori status and gastritis in a northern Canadian community, National Gathering of Graduate Students. Montreal, Quebec, June 2012; oral presentation, , Accepted

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

Hastings, E.V., van Zanten, S.V., Girgis, S., Goodman, K.J. and the CANHelp Working Group., 2013, Community H. pylori Projects in the Canadian Arctic: Histopathology Shows a High Prevalence of Severe Gastritis, Helicobacter, v.18, no.s1, 102, Published

Hastings, E.V., Wynne, A., Chang, H.J., Girgis, S., Goodman, K.J. and the CANHelp Working Group., 2013, Untreated water consumption: Helicobacter pylori status and gastritis in a northern Canadian community, Int J Circumpolar Health, v.72, no.s1, 706-707, Published

Keng, A.B., Girgis, S., Chang, H.J., 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, 103. Keng AB, Girgis S, Chang HJ, Geary Poster Presentation, 16th International Workshop on Campylobacter, Helicobacter & Related Organisms, Vancouver, , Accepted

Lefebvre M, Chang H, Morse A, van Zanten S, Laura Aplin, Goodman KJ, CANHelp Working Group, 2012, Adherence and barriers to H. pylori treatment in arctic Canada: Preliminary findings from a randomized trial, International Journal of Circumpolar Health, , Accepted

Lefebvre, M., Chang, H.J., Morse, A., van Zanten, S.V. and Goodman, K.J., 2013, Adherence and barriers to H. pylori treatment in Arctic Canada: preliminary findings from a randomized trial, Int J Circumpolar Health, v.72, no.s1, 749, Published

Lefebvre, M., Geary, J., Girgis, S., Goodman, K.J., and CANHelp Working Group., 2011, Predictors of severe H pyloriassociated gastritis in Arctic Canada, Oral Presentation, 16th International Workshop on Campylobacter, Helicobacter & Related Organisms, Vancouver, , Accepted



Lefebvre, M., Geary, J., Girgis, S., Goodman, K.J., and CANHelp Working Group., 2011, Predictors of severe H pylori-associated gastritis in Arctic Canada, Oral Presentation, Canadian Society for Epidemiology and Biostatistics Student Conference, , Accepted

van Zanten, S.V., Aplin, L., Morse, A.L., Morse, J.W., Keelan, M.M., Geary, J., Hanley, B., Kirchgatter, D.M., Balsillie, W. and Goodman, K.J., 2013, The Yukon Old Crow Helicobacter pylori infection project, Gastroenterol, v.144, no.5, S-6, Published

Wynne A, Hastings EV, Colquhoun A, Chang H, Goodman KJ, CANHelp Working Group, 2012, Untreated water and Helicobacter pylori: Perceptions and behaviours in a northern Canadian community, International Journal of Circumpolar Health, , Accepted

Wynne, A., Hastings, E.V., Colquhoun, A., Chang, H.J., Goodman, K.J. and the CANHelp Working Group., 2013, Untreated water and Helicobacter pylori: perceptions and behaviours in a Northern Canadian community, Int J Circumpolar Health, v.72, no.s1, 704-705, Published

Non-Refereed Contributions

Aplin, L., Goodman, K.J., 2011, Community-Driven Research on Helicobacter pylori Infection in Northern Canada, Invited Oral Presentation, Inuit Public Health Task Group National Meeting, , Accepted

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

Beesoon Y, Li J, Carraher S, Archie B, Buckle B, Goodman KJ, Keelan M, CANHelp Working Group., 2013, Is Helicobacter pylori present in surface and treated water samples in Aklavik, NWT?, ActicNet Annual Scientific Meeting, Halifax, NS. Dec 10-11 2013., , Accepted

Carraher S, Colquhoun A, Goodman KJ, Koe BL, Edwards PD, Keelan M, The CANHelp Working Group, 2012, Community-driven Research on H. pylori Infection: Making Microbiology Data Meaningful in Indigenous Arctic Communities, ArcticNet: 8th Annual Scientific Meeting, Vancouver, December 10-14, 2012; poster presentation, , Accepted

Colquhoun A., 2013, Addressing community concerns about cancer incidence: a lost cause or public health imperative?, World Health Organization, International Agency for Research on Cancer, Cancer Information Section. Lyon, France. September 10, 2013., , Accepted

Colquhoun A., 2013, Whose burden? A comprehensive approach to describing burden of disease by synthesizing evidence from diverse perspectives., National Forum on Public Health, School of Public Health, University of Alberta. Edmonton, AB. November 13, 2013., , Accepted

Colquhoun, A., Arnold, M., Ferlay, J., Goodman, K.J., Forman, D. and Soerjomataram, I., 2014, Global patterns of cardia and noncardia gastric cancer incidence in 2012, INSIGHTS: Focus on Public Health, Edmonton, AB. November 12, 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

Colquhoun, A., Waye, A. and Goodman, K.J., 2014, Whose burden? Synthesizing evidence from diverse perspectives for a comprehensive description of disease burden, 47th Annual Meeting of the Society of Epidemiology Research, Seattle, WA, USA. June 24-27, 2014, , Accepted



Colquhoun, A., Waye, A. and Goodman, K.J., 2014, Whose burden? Synthesizing evidence from diverse perspectives for a comprehensive description of disease burden, 20th IEA World Congress of Epidemiology, Anchorage, AK, USA. August 17-21, 2014, , Accepted

Fagan-Garcia K, Hastings EV, Archie B, Archie D, Corriveau A, Hanley B, van Zanten SV, Keelan M, Goodman KJ, CANHelp Working Group., 2013, Community-driven Helicobacter pylori research in Arctic Canada: update from the CANHelp Working Group., ArcticNet Annual Scientific Meeting, Halifax, NS. Dec 12, 2013, , 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

Hasting 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

Hastings EV, Goodman KJ and The CANHelp Working Group., 2013, Community-based Research on H. pylori Infection in Canadian Arctic Communities., Arctic Infectious Disease Working Groups Meetings, Copenhagen, Denmark. Sep 18, 2013., , Accepted

Hastings EV, van Zanten SV, Girgis S, Goodman KJ, CANHelp Working Group., 2013, Community H. pylori Projects in the Canadian Arctic: Histopathology Shows a High Prevalence of Severe Gastritis., European Helicobacter Study Group Meeting, Madrid, Spain. Sep 12-14, 2013., , Accepted

Hastings EV, Yasui Y, Goodman KJ, CanHelp Working Group., 2013, Could systematic error explain observed effects in epidemiological research on H. pylori transmission pathways?: a bias analysis., Alberta Digestive Disease Summit, Lake Louise, AB. June 14-16, 2013., Accepted

Hastings EV, Yasui Y, Hanington P, Chang HJ, Goodman KJ, The CANHelp Working Group, 2012, Environmental Exposures and H. pylori Infection in Canadian Arctic Communities, ArcticNet: 8th Annual Scientific Meeting, Vancouver, December 10-14, 2012; poster presentation, , Accepted

Hastings, E.V., Gigis, S., Goodman, K.J. and CANHelp Working Group., 2014, Community-based research on H. pylori infection in the Western Canadian Arctic: association between dietary factors and severe gastritis prevalence, World Congress of Epidemiology, Anchorage, AK, USA. August 20, 2014, , Accepted

Ma, J., Waye, A., Goodman, K.J. and CANHelp Working Group., 2014, Systematic Literature Review of the Economic Burden Associated with Gastric Cancer, University of Alberta Faculty of Medicine and Dentistry Summer Students' Research Day, Edmonton, AB. October 18, 2014, , Accepted

Ma, J., Waye, A., Goodman, K.J. and CANHelp Working Group., 2014, Systematic Literature Review of the Economic Burden Associated with Gastric Cancer, University of Alberta Undergraduate Research Symposium, Edmonton, AB. November 13, 2014, , Accepted

Mahmoud M, Holovati J, Keelan M., 2013, Antisense DNA against Helicobacter pylori urease impairs urease expression., Alberta Digestive Disease Summit, Lake Louise, AB. June 14-16, 2013., , Accepted



Power, M., Chang, H.J., Keelan, M., Girgis, S., Fagan-Garcia, K., Goodman, K.J. and CANHelp Working Group., 2014, Community-driven research on Helicobacter pylori infection in Arctic Canada: Association of bacterial genotypes with disease manifestations., Arctic Change 2014, Ottawa, ON. December 8-12, 2014, Accepted

Waye, A., Fagan-Garcia, K., Jacobs, P., Goodman, K.J. and CANHelp Working Group., 2014, Resource Utilization for the Diagnosis and Treatment of H. pylori-related Disease in Fort McPherson, NWT, Arctic Change 2014, Ottawa, ON. December 8-12, 2014, Accepted

Waye, A., Goodman, K.J. and Jacobs, P., 2014, Systematic Critical Review of Economic Evaluations of the Elimination of H. pylori for Gastric Cancer Prevention, International Health Economics Association Conference, Dublin, Ireland. July 2014, , Accepted

Waye, A., Goodman, K.J. and Jacobs, P., 2014, Systematic Critical Review of Economic Evaluations of the Elimination of H. pylori for Gastric Cancer Prevention, Health Technology Assessment International Conference, Washington, DC. June 2014, , Accepted

Waye, A., Goodman, K.J. and Jacobs, P., 2014, Systematic Critical Review of Economic Evaluations of the Elimination of H. pylori for Gastric Cancer Prevention, 47th Annual Meeting of the Society of Epidemiology Research Conference, Seattle, WA, USA. June 24-27, 2014, , Accepted

Williams, K.F., Hastings, E.V., Fagan-Garcia, K., Chang, H.J., Munday, R., Wynne, A., Goodman, K.J. and CANHelp Working Group., 2014, Investigating exposure to antibiotics in participants of community H. pylori projects in Arctic Canada, Arctic Change 2014, Ottawa, ON. December 10, 2014, , Accepted

Williams, K.F., Hastings, E.V., Fagan-Garcia, K., Chang, H.J., Munday, R., Wynne, A., Goodman, K.J. and CANHelp Working Group., 2014, Investigating exposure to antibiotics in participants of community H. pylori projects in Arctic Canada, INSIGHTS: Focus on Public Health, Edmonton, AB. November 12, 2014, , Accepted

Yee, H., Maymoud, M. and Keelan, M., 2014, Bactericidal Activities of Stearylamine-Containing Liposomes Against Helicobacter Pylori, 47th Annual Summer Students' Research Day, Edmonton, AB. October 18, 2014, , Accepted