

Household factors associated with *H pylori* infection in Aklavik, Northwest Territories.\*L Aplin, K Fagan-Garcia, J Geary, KJ Goodman, CANHelp Working Group (University of Alberta, Edmonton)

Concerns raised by residents of Aklavik, Northwest Territories (population=590, ~90% Aboriginal) about health risks from *H pylori* (*Hp*) infection resulted in the formation of the community-driven Aklavik *Hp* Project, aimed at identifying public health strategies for *Hp* infection in Arctic Canada. This analysis describes associations of household characteristics with *Hp* infection among project participants.

From 2008 to 2010, participants were tested for *Hp* by urea breath test or endoscopy; 62% (221/355) were positive. Data on household characteristics were collected from representatives of 145 participating household using a survey; 296 individuals were included in this analysis. Logistic regression was used to estimate odds ratios (OR) and 95% confidence intervals (CI) for associations of household characteristics with *Hp* infection in individuals adjusting for age, sex and ethnicity.

We observed various strong household effects, notably for income, education and density indicators.

Adjusted ORs (CIs) were: 1.0, 0.62 (0.25-1.53), 0.42 (0.17-1.03), and 0.28 (0.13-0.61), respectively, for annual household income of <\$25,000, \$25,000-\$49,999, \$50,000-\$74,999, and >=\$75,000; 1.0, 0.77 (0.42-1.42) and 0.56 (0.28-1.12), respectively, for highest educational attainment by a household member of <grade 12, grade 12, and >grade 12; 1.0, 0.84 (0.42-1.66), 1.08 (0.45-2.58) and 7.02 (1.94-25.40), respectively, for 0, 1, 2, 3-6 children in the house; 1.0, 1.40 (0.78-2.51) and 2.71 (0.77-9.56), respectively, for <=1, 1.01-2 and 2.01-3 people/bedroom.

We present initial research on household-level risk factors for *Hp* infection, many of which appear to be strongly associated with individual *Hp* status among residents of the Arctic hamlet.