Concerns raised by residents of Aklavik, Northwest Territories (population=590, ~90% Aboriginal) about health risks from *H. pylori* infection resulted in the community-driven Aklavik *H. pylori* Project, aimed at reducing health risks from *H. pylori* infection in Arctic Canada. This analysis describes associations of household characteristics with *H. pylori* prevalence among project participants recruited by open invitation disseminated throughout the community.

During 2008-2010, participants were tested for *H. pylori* by urea breath test or histology. To ascertain household characteristics, we interviewed representatives of participating households using a structured questionnaire. We used logistic regression with random effects for household clustering to estimate odds ratios (OR) and 95% confidence intervals (95% CI) for associations of household characteristics with individual *H. pylori* status, adjusting for age, sex and ethnicity. *H. pylori* prevalence among all project participants was 62% (221/355). We collected household data for 296 individuals (*H. pylori* prevalence=60%) in 145 households.

The most notable effects of household factors were for income, education and household crowding indicators.

Table 1. Odds ratios for the association of household factors with individual *H. pylori* status, n=296

Variable	Unadjusted OR (95% CI)	Adjusted[†] OR (95% CI)
Annual household income (in CAD)		
<$25,000	1.0	1.0
$25,000-$49,999	0.67 (0.26-1.7)	0.74 (0.30-1.8)
$50,000-$74,999	0.41 (0.16-1.0)	0.50 (0.21-1.2)
>=$75,000	0.26 (0.12-0.56)	0.33 (0.16-0.69)
Highest educational attainment by a household member		
<grade 12	1.0	1.0
grade 12	0.82 (0.40-1.7)	0.86 (0.42-1.7)
>grade 12	0.42 (0.19-0.91)	0.60 (0.26-1.4)
Number of children in the house		
0	1.0	1.0
1	0.82 (0.41-1.6)	0.76 (0.36-1.6)
2	0.98 (0.42-2.3)	0.98 (0.38-2.5)
3-6	4.6 (1.4-15)	4.2 (1.2-15)
Number of people per bedroom		
<=1	1.0	1.0
1.01-2	1.5 (0.84-2.8)	1.4 (0.72-2.8)
2.01-3	4.0 (0.85-19)	3.1 (0.63-15)

[†]Adjusted for age, sex, ethnicity, and random household effect

Our preliminary analysis of household-level risk factors for *H. pylori* infection in this Arctic Aboriginal hamlet shows low socioeconomic status and household crowding to be associated with increased odds of *H. pylori* infection.