

Appendix 2 (as submitted by the authors): Validation of Self-Reported Inflammatory Bowel Disease in the Canadian Community Health Survey

We sought to determine the accuracy self-reported inflammatory bowel disease (IBD) and subtypes Crohn's disease and ulcerative colitis in the Canadian Community Health Survey (CCHS) relative to the validated case definition used to identify cases of IBD in Ontario health administrative data. (1,2)

Methods

The 2009/10 cycle of the CCHS included a question to identify survey respondents with any bowel disorder: "Do you suffer from a bowel disorder such as Crohn's disease, ulcerative colitis, irritable bowel syndrome, or bowel incontinence?". Respondents with a bowel disorder were then asked to specify the specific bowel disorder they have, including Crohn's disease, ulcerative colitis, irritable bowel syndrome, bowel incontinence, or other bowel disorder.

Using the previously case definition of IBD used in the Ontario Crohn's and Colitis Cohort as the gold standard (Table S1) (1,2), we determine the accuracy of the self-reported IBD state and subtype. We calculated the sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of self-reported IBD. We additionally evaluated the accuracy of IBD subtype by determining the proportion of survey respondents that identified themselves as having the same subtype of IBD as identified in the validated case definition.

Results

The sensitivity of self-reported IBD in the CCHS relative to the case definition used in the Ontario Crohn's and Colitis cohort was 76% (95% CI 71% to 82%); specificity, >99%; positive predictive value, 59% (95% CI 53% to 64%), and negative predictive value >99%

(Table A1). Self-reported subtype of IBD was concordant with the health administrative data classification in 89.5% of cases.

Table A1. Validation of self-reported inflammatory bowel disease (IBD) in the 2009/2010 Canadian Community Health Survey.

		Validated case definition from administrative data	
		IBD	Not IBD
Self-reported IBD	IBD	182	128
	Not IBD	56	33,257

References

1. Benchimol EI, Guttman A, Griffiths AM, Rabeneck L, Mack DR, Brill H, et al. Increasing incidence of paediatric inflammatory bowel disease in Ontario, Canada: evidence from health administrative data. *Gut*. 2009 Oct 15;58(11):1490–7.
2. Benchimol EI, Guttman A, Mack DR, Nguyen GC, Marshall JK, Gregor JC, et al. Validation of international algorithms to identify adults with inflammatory bowel disease in health administrative data from Ontario, Canada. *J Clin Epidemiol*. Elsevier Inc; 2014 Aug 1;67(8):887–96.