Author’s response to reviews

Title: Using environmental health officers' opinions to inform the source attribution of enteric disease: further analysis of the "most likely source of infection"

Authors:

Anna Lukacsovics (alukacso@uoguelph.ca)
Andrea Nesbitt (Andrea.Nesbitt@phac-aspc.gc.ca)
Barbara Marshall (Barbara.Marshall@phac-aspc.gc.ca)
Rod Asplin (Rod.Asplin@fraserhealth.ca)
Jason Stone (Jason.Stone@fraserhealth.ca)
Glen Embree (Glen.Embree@fraserhealth.ca)
Matt Hurst (Matt.Hurst@phac-aspc.gc.ca)
Frank Pollari (Frank.Pollari@phac-aspc.gc.ca)

Version: 5
Date: 2 December 2014

Author's response to reviews: see over
Author’s response to reviews

Title: Using environmental health officers’ opinions to inform the source attribution of enteric disease: further analysis of the "most likely source of infection"

Authors:

Anna Lukacsovics (alukacso@uoguelph.ca)
Andrea Nesbitt (Andrea.Nesbitt@phac-aspc.gc.ca)
Barbara Marshall (Barbara.Marshall@phac-aspc.gc.ca)
Rod Asplin (Rod.Asplin@fraserhealth.ca)
Jason Stone (Jason.Stone@fraserhealth.ca)
Glen Embree (Glen.Embree@fraserhealth.ca)
Matt Hurst (Matt.Hurst@phac-aspc.gc.ca)
Frank Pollari (Frank.Pollari@phac-aspc.gc.ca)

Version: 2 Date: 28 November 2014

Author’s response to reviews: see over
RE: Using environmental health officers' opinions to inform the source attribution of enteric disease: further analysis of the "most likely source of infection" (MS: 4932159971444351)

Dear Dr. Pafitis,

Please find enclosed the revised version of the manuscript ‘Using environmental health officers' opinions to inform the source attribution of enteric disease: further analysis of the "most likely source of infection”’ (MS: 4932159971444351). Attached to this cover letter are our detailed responses to the reviewers’ comments. We thank the reviewers for their excellent comments, and have attempted to address all of them in the manuscript to the best of our ability. Please note that page, paragraph, and line numbers bolded in the attached response refer to the original version of the manuscript commented on by the referees.

Enclosed also is an electronic version of the manuscript, which is in Microsoft Word 2010.

On behalf of all the authors, thank you for considering this manuscript for publication in your journal.

Sincerely,

Ms. Andrea Nesbitt (corresponding author)
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. West, Unit 120
Guelph, ON    N1H 8J1
Tel.: (519) 826-2996
Fax : (519) 826-2244
E-mail: Andrea.Nesbitt@phac-aspc.gc.ca
Detailed response to the reviewers’ comments.

Reviewer 1.

Minor Essential Revisions

Point 1. Interpretation of data in table 4 and table 5

The authors appreciate the reviewer’s comment that little interpretation was provided for table 4 and table 5 in light of the amount of work that was put into compiling these results.

The authors’ had not included an extensive interpretation of table 4 in the manuscript because similar results produced from the Ontario sentinel site data by Dumoulin et al. was interpreted extensively by comparing the results to the literature. For this paper, the authors chose to focus the discussion on how data quality and interpretation can be improved for future analyses of the “most likely source of infection” (MLSI) field. This decision was made to ensure that the manuscript provided more novel observations for assessing the feasibility of using MLSI data for the source attribution of enteric illness. However, the authors agree with the reviewer that the work in this study deserves more attention in the discussion and have included more interpretation of the data presented in table 4 and table 5 which has been added to the discussion on page 13, paragraph 3 lines 306-319.

Point 2. Quality assurance program recommendation for enteric disease investigation

The reviewer makes an excellent recommendation to consider quality assurance programs to help improve data quality and the following sentences were added to page 16, paragraph 1, lines 383-386 and to page 17-18, lines 416-418, as follows:

“A final consideration could be to strengthen existing quality control protocols or adapting existing quality assurance programs such as those that periodically allow for dual observation and reporting. This may offer a clearer indication of any EHO biases that need to be addressed for MLSI interpretation.”

“In addition, interpretation of MLSI results could be improved through EHO focus groups and by strengthening existing or implementing new quality assurance programs for enteric disease investigation and reporting.”

Point 3. Remove “published a study” from line 88

The reviewer suggests removing “published a study” from line 88 and we agree with this change. The sentence was modified as such:
“In 2012, Dumoulin et al. explored the MLSI question using FoodNet Canada’s Ontario sentinel site (ON site) data [18].”

Point 4. Clarification of domestic travel in line 133

The authors agree with the reviewer that clarification of domestic travel is needed. The definition of domestic travel has been revised and an additional example was included in the sentence to illustrate that travel to other provinces/territories within Canada is also considered domestic travel. The revised sentence on page 6, paragraph 2, lines 129-134 is as follows:

“FHA considers exposures that occur outside the geographical boundaries of the Fraser Health Authority and adjacent portions of Vancouver-Coastal Health Authority to be domestic travel. Cases where the EHO explicitly stated that an exposure occurred during domestic travel, such as “food while travelling” or “travel within BC”, or “Saskatchewan” were categorized as ‘domestic travel’.”

Point 5. Space after “961” in line 233

As per the reviewer’s suggestion, a space was added after “961” in line 233.

Discretionary Revisions

Point 6. Place “overall enteric disease” results at the bottom of table 4 and table 5

The referee makes an excellent suggestion. The authors have revised table 4 and table 5 so that “overall enteric disease” is at the bottom of the tables.
Reviewer 2.

Discretionary Revisions

Point 1. Environmental Health Officers’ interviewing experience to explain lower or higher odds of choosing certain types of exposures for the MLSI

The reviewer makes an excellent point, and the authors have incorporated this point into the text on page 15, paragraph 4, lines 368-370, as follows:

“In addition, the number of years of experience and interviewing skills can influence an EHO’s expert opinion and increase or decrease their odds of entering a certain type of exposure in the MLSI field compared to other EHOs.”

Point 2. Training on the clarification of exposure and risk setting to help improve data quality

The authors agree with the reviewer’s excellent suggestion, and have addressed it by revising the sentence on page 17, paragraph 2, lines 403-406 to reflect that training in this respect is important not only for improving data quality for risk setting but also for exposure.

“Training on clarification of exposure and risk setting and the inclusion of both entries in the MLSI field would provide more complete and comprehensive exposure and risk setting data and allow for a more robust analysis of risk setting.”

In addition, the importance of providing training on the clarification of exposure and risk setting is highlighted in the conclusion on page 17, paragraph 4, lines 413-414, as follows:

“Suggestions are made to train and encourage EHOs to include both exposure and risk setting in the MLSI field, as well as to measure how confident EHOs are with their responses.”