

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Fruit and Vegetable Intake and Body Adiposity among Populations in Eastern Canada: the Atlantic Partnership for Tomorrow's Health Study
AUTHORS	Yu, Zhijie; DeClercq, Vanessa; Cui, Yunsong; Forbes, Cynthia; Grandy, Scott; Keats, Melanie; Parker, Louise; Sweeney, Ellen; Dummer, Trevor

VERSION 1 – REVIEW

REVIEWER	Peizhong Peter Wang Memorial University of Newfoundland, Canada
REVIEW RETURNED	30-Jun-2017

GENERAL COMMENTS	<p>The Canadian Partnership for Tomorrow Project (CPTP) is a large longitudinal study and the PATH is part of it. I am pleased to see the baseline data were released and used for epidemiological research. Overall, this is a well conceived and well-written manuscript. I only have a couple of minor comments. Despite its apparent strengths in large sample size and information load, I hope the following limitations should be discussed.</p> <p>1) The CPTP is based on adult volunteers who are not representative of the underlying general population (as the authors described). While this may not be a major validity issue for the CPTP, which is a longitudinal cohort, understandably, validity issue is a concern for the current study. What are the main reasons behind very high proportion of females (21828) in the study population compared to males (9,445)?</p> <p>2) We often cannot infer a temporal relationship between exposure and outcome and it is more so for this study as well. Apparently, past week dietary information (including fruits and vegetables) may have nothing to do with the observed BMI or body fat. This limitation should be discussed.</p> <p>3) Z-score is not commonly used for studies like this one. Could the authors provide some justification for its use?</p>
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REVIEWER	Sheila C. Barrett Northern Illinois University United States of America
REVIEW RETURNED	16-Jan-2018

GENERAL COMMENTS	Well written except that readers are directed to find data collection methods from previously published studies. All important details are included in the manuscript.
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VERSION 1 – AUTHOR RESPONSE

Responses to reviewers' comments

Reviewer 1:

The Canadian Partnership for Tomorrow Project (CPTP) is a large longitudinal study and the PATH is part of it. I am pleased to see the baseline data were released and used for epidemiological research. Overall, this is a well conceived and well-written manuscript. I only have a couple of minor comments. Despite its apparent strengths in large sample size and information load, I hope the following limitations should be discussed.

1) The CPTP is based on adult volunteers who are not representative of the underlying general population (as the authors described). While this may not be a major validity issue for the CPTP, which is a longitudinal cohort, understandably, validity issue is a concern for the current study. What are the main reasons behind very high proportion of females (21828) in the study population compared to males (9,445)?

Authors' response: We appreciate these comments. We have addressed this as a study limitation with a newly published cohort profile paper in which this limitation is also documented as well (page 12, paragraph 3, line 2):

Firstly, our study participants were recruited as volunteers of the Atlantic PATH cohort, therefore, our study sample was not a representative sample of the populations of Atlantic Canada. The majority were Caucasians and about 70% of study participants were females. Thus, this may limit the generalizability of our current cross-sectional study findings to other populations.

2) We often cannot infer a temporal relationship between exposure and outcome and it is more so for this study as well. Apparently, past week dietary information (including fruits and vegetables) may have nothing to do with the observed BMI or body fat. This limitation should be discussed.

Authors' response: We appreciate this comment. We assessed fruit, vegetable and 100% juice intake by questions on a typical day, by which data of habitual intake was collected. We agree with the reviewer's comment and have discussed this as a study limitation (page 13, paragraph 1, line 1):

Thirdly, though we collected data on the habitual fruit, vegetable, and 100% juice intake, the cross-sectional nature of the study design did not enable us to make either temporal or causal inference.

3) Z-score is not commonly used for studies like this one. Could the authors provide some justification for its use?

Authors' response: We appreciate this comment and have added some explanations on the use of z-scores in the analysis (page 8, paragraph 1, line 4):

Z-scores enable us to combine scores from the exposure variables that have different means, standard deviations, and ranges. Further, the procedure standardizes the distributions of the exposure variables and for this analysis, increased the statistical power in both the linear and logistic regression analyses when the exposure variables were treated as a continuous variable.

Reviewer 2:

Well written except that readers are directed to find data collection methods from previously published studies. All important details are included in the manuscript.

Authors' response: We appreciate these comments. We have a newly published cohort profile paper, in which detailed descriptions on data collection and distributions have been documented. We have cited this paper as a reference (18) in this manuscript.

18 Sweeney E, Cui Y, DeClercq V, Devichand P, Forbes C, Grandy S et al. Cohort Profile: The Atlantic Partnership for Tomorrow's Health (Atlantic PATH) Study. Int J Epidemiol 2017; 46: 1762–1763i.

VERSION 2 – REVIEW

REVIEWER	Peizhong Peter Wang Memorial University of Newfoundland, Canada
REVIEW RETURNED	07-Feb-2018
GENERAL COMMENTS	My questions and concerns have been adequately addressed. I don't have additional comments.