

Author's response to reviews

Title: Native and foreign born as predictors of pediatric asthma in an Asian immigrant population

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Author's response to reviews: see over

EDITOR COMMENTS

On the title page, please modify the format, see other EH articles for reference. Indicate corresponding author and study type.

We have indicated corresponding author, added the study type to the title and reformatted to correspond to the journal style.

The abstract is admirably short, but the space would allow for more detailed information on the study.

We have added to the abstract.

In the main text, insert reference # before periods/commas.

Done.

All references should be cited by number (Pg 8, Greenfield et al.).

This has been corrected.

Please remove unnecessary extra spaces/lines throughout paper.

None found.

Please insert 'Conclusions' heading.

Done.

References should be double-spaced and follow EH journal instructions.

Done.

In Table 1, all columns and rows should be visible as described in the instructions at <http://www.ehjournal.net/info/instructions/>. You may want to look at one of the previously published papers for guidance.

Done.

ESTEBAN BURCHARD:

This is a well done study in which the questions and hypotheses are well defined, the data collection are straight forward and the analyses well done. To my knowledge, this is one of the few studies done in this population and the overall all results are consistent with previous work done in other populations. The limitations are clearly defined.

We thank the reviewer for their appreciation of our manuscript.

Discretionary Revisions (which the author can choose to ignore)

In the discussion, the authors mention non-Asian populations, but in the table 100% of the participants are Asian. This was confusing.

We have removed the brief section that mentioned the analysis that added back in the non-Asian respondents to the survey. Also (see below) we have clarified the numbers for excluding non-Asians and certain ages from the database used in the final analysis.

DAVID CARPENTER:

This is an interesting paper on a very important subject. But in its present form it does not include adequate data to justify publication. However with adequate revision it can and should be published.

We thank Dr. Carpenter also for his assessment that the paper has value.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached):

New tables are necessary so as to present the data that has been collected. There must be a table that presents the population participation data, providing information on all of the parameters such as numbers of partially answer questionnaires, etc., all of which are alluded to in the text without providing detailed information. This should also give clear numbers for things like lack of occupational information.

We agree that our presentation of how we arrived at the final database was not clear in the original manuscript. Once stated more clearly in the text, we hope that the reviewer and editor will see that there were simply three steps and that a table is not needed. The key paragraph now reads:

"For this analysis, we discarded questionnaires filled out by non-Asian respondents (n=159) and those for children younger than 4 (n=42). Children younger than 4 years of age were excluded because asthma diagnosis is uncertain at very young ages. Of the remaining 209 surveys, we discarded an additional 5 that had 3 or more missing answers. Our final database for the analysis reported here consisted of 204 Asian children, ages 4-18."

The information on statistical analysis is very confusing. This is particularly the case for going from Table 1 to Table 2. You state that variables that showed no significant impact on diagnosis were dropped from future analysis, but then Table 2 includes exactly such variables (motor traffic, born in USA). But other factors shown to be significant in Table 1 are not included in Table 2 [site, SES (both marginally significant)]. Why did you choose what you did to be included in Table 2? For all analyses the outcome should have been checked against exposure. There must at least be an explanation for why you

choose only certain variables for the logistic regression analysis. Thus the study design and methods section needs to be better developed.

We think that the confusion here might be due to not including a table in which the 2x2 comparisons were presented. In our original manuscript we jumped from Table 1, which presented descriptive data for our key variables for the native and foreign born sub populations in our study, to the regression analyses. We did this because there were relatively few significant associations in 2x2 comparisons, but doing so obviously made the analysis confusing to the reader.

In order to address this, we have added a new table, now Table 2, that presents the 2x2 comparisons for asthma and environmental and social factors so that readers can see the OR and p-values for each of these comparisons for themselves. Hopefully this makes the transition to the full regression models in what is now Table 3 easier to follow and more transparent. We have edited the text in the relevant section of the results to include the new table and to clarify what we did.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

It would be better to have the younger vs. older children data in a table, rather than just words in the text.

Our new Table 2 is divided by age

The abstract also needs attention.

We have expanded the abstract to include more information, as noted in the response to editor comments.

The conclusion that the results are consistent with early childhood infections does not follow from anything found earlier in the abstract.

We have added a comment earlier in the abstract about early childhood infections.

Also the ORs for "born in the US" in the abstract are wrong, based on the table.

The ORs in the abstract, contrary to the reviewer's impression, do correspond exactly to the ORs in what is now Table 3.