Reviewer's report

Title: Childhood asthma and indoor allergens in Native Americans in New York

Version: 1 Date: 27 March 2006

Reviewer: John J Hisnanick

Reviewer's report:

General
Overall, I found the paper to be well-written, with only some minor editorial concerns and missing words. The major shortcoming of the paper is the lack of an adequate sample size that could lead to rejecting any proposed hypotheses. However, the authors do note that their small sample size is problematic, but do a good job of providing a qualitative assessment of how the proposed risk factors should/could impact upon a study with a more appropriate sample size. In short, I view this paper a nice preliminary study that could serve as the bases for other researcher to study the incidence of asthma among another minority population of children.

In regard to the Introduction -- the authors do a nice job in the background and laying out the most notable research citing the possible causes of an increase in the incidence of asthma among children in general, and Native American/Alaska Native children in particular. No real concerns were raised in reviewing this section.

In the Methods section -- I have several concerns:
1. Why enroll only 50 patients in the study, 25 cases and 25 controls. Was there a resource issue that did not permit enrolling more study participants? The authors might want to note in this section why the underlying reasons (if any) on why they had such a small sample size.
2. On page 7, 2nd line down, change 'domestic' to 'non-commerical grade.'
3. On page 7, 3rd paragraph, the authors note the "mean of the normally distributed data were compared by students' test." Don't they mean that they were collecting their sample data from a universe that is assumed to have a normal distribution for the population of interest. It is hard to imagine that the data collected from 50 patients would mirror the normal distribution.

Results section:
The authors do a nice job presenting their findings, even though their results are not statistically significant, with the expectation of breast-feeding.

Discussion section:
The value of this study needs to be moved up in the discussion. The 2 sentence statement on at the end of page 12 such be move to the beginning of this section, since it clearly lays out the value of this study.

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

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

1. page 10, 3rd line, change 'significantly' to 'significant' and change 'correlated' to 'correlation.'
2. page 11, 2nd paragraph, insert 'the' between 'to New.'
3. page 13, top of the page, change 'attendance as protective factors' to 'attendance as a protective factor.'
4. page 14, 11th line down, insert 'the' between 'and age.'
5. page 15, 5th line down, in 'the' between 'in risk.'

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.