Reviewer's report

Title: Control of asthma triggers in indoor air with air cleaners: a modeling analysis

Version: 4 Date: 9 July 2008

Reviewer: Otto Hänninen

Reviewer's report:

Review of the July 8, 2008, revision

Dear Editor,

The authors have mostly accounted for the remarks in their revision of the manuscript. Before publication I would recommend the following small but significant adjustments to be made:

Abstract: "90-99% lower risk of respiratory infection". As discussed in the previous remarks and the response by the authors, this result concerns only the inhalation route of infection and therefore does not cover the full risk as the cited statement implies. This needs to be adjusted for. I would recommend e.g. wording like: "...lower risk of inhalation exposure airborne viruses"

Abstract: statement on the avoidance strategies of ALA, NIH and NEETF. This statement seems to be associated with the interests of the funder of the study and it is debatable how well the modeling results support the given interpretation. On the other hand it is clear that in population level asthma abatement the focus is shifting towards avoiding too clean environments. The authors correctly acknowledge this by talking about asthma management for individuals, i.e., in case of individuals suffering from the symptoms exposure reduction is reasonable. However, whether the asthma avoidance strategies by the cited organizations should be revised based on the current results is a more complex question; the details necessary for this discussion including the composition of the cited strategies are simply not given in the current paper and therefore I would recommend to formulate this conclusion as a general statement about exposure reduction without specific reference to the organizations listed. If the organizations were to be listed, they have to be given the opportunity to review the manuscript and statements concerning their recommendations, and express their position as a response to it, published together with the current work.

The abstract uses very good and clear expression "forced air systems with high-efficiency filtration". However, in Table 1 the composition of this system becomes not clear while only the trade names are given; I would suggest to add a subtitle "Forced air systems" above those belonging to this category, and expression "High efficiency filtration" before the current text describing the HE configuration.
Respectfully
Otto Hänninen

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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