Reviewer's report

Title: Blood levels of beta-hexachlorocyclohexane among people living close to an industrial area.

Version: 1 Date: 29 April 2013

Reviewer: Roberto Lucchini

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This study focuses on environmental contamination of beta-hexachlorocyclohexane (Beta-HCH) from an Italian chemical plant. Biomonitoring was conducted in four residential areas at different distances from the point source, by measuring Beta-HCH serum concentrations in adults. Beta-HCH levels were associated with living close to the point source, age, education, use of private wells and consumption of local food.

The manuscripts include a description of the exposure bio-monitoring in the different areas with an assessment of determinants including distance from the polluted river, age, use of private wells and consumption of local foods. The influence of gender is not clear although it seems like women showed higher levels of Beta-HCH in serum.

Study population
The enrollment procedure is not clear, more information should be provided about how subjects were identified from the population register and whether personal identification was protected.

Page 12. first row: the sentence "People with higher education showed were less likely ..." needs revision

Page 12: Please specify further the sentence "In the other sub-areas combined (areas 1, 2 and 3), only age and gender affected the results"

Provide the scale for the distances in figure 1.

Level of interest: An article whose findings are important to those with closely related research interests

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.