Reviewer's report

**Title:** Public heath concern behind the exposure to persistent organic pollutants and the risk of metabolic diseases

**Version:** 1  **Date:** 30 January 2012

**Reviewer:** David Carpenter

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You imply that present regulation of POPs is protective against certain diseases, by which I suspect you mean cancer. What is the basis for this statement? There is some evidence that there is more carcinogenicity in the non-dioxin-like PCB fraction than in the dioxin-like fraction, so it is likely that using TEQ methodology does protect against cancer in addition to metabolic diseases.

While I agree that the setting of standards based on TEQs is totally inadequate, this review would benefit from elaboration on the relative role of chlorinated pesticides as compared to dioxins/furans/PCBs. Many studies now indicate that some pesticides are more strongly associated with diabetes in humans than other POPs, and as well documented in the review, these are often not regulated at all. Furthermore they are often found at high concentrations in meats, dairy products and eggs as well as seafood.