Reviewer’s report

Title: A prospective study of cancer risk among Agricultural Health Study farm spouses associated with personal use of organochlorine insecticides.

Version: 1 Date: 19 Jul 2017

Reviewer: Julia Brody

Reviewer's report:

Thank you for your revisions.

Regarding Comment 2 about recruitment of spouses based on licenses issues well after OCs were banned. Thank you for confirming that the participants' OC exposure is unrelated to their spouse's later professional use of pesticides. I think quick readers may not think this through and might think of the wives as likely to have exposures related to their spouse's occupation, so I suggest noting in the paper that the spouse registrations were post DDT.

Thank you for evaluating risk by birth cohort. (1) Given the weaknesses in the exposure assessment and other design limitations, I think it's interesting that the results are suggestive of elevated risk for the later-born women and nearly significant -- OR 1.22 (0.94-1.59) for women born after 1936 -- and show no increased risk for the women who reached puberty before DDT came into use (interaction p=.11). I would consider this somewhat supportive of the CHDS finding rather than dismissing it. (2) Also, why did you split the cohort by births before and after 1936 rather than using 1931 for comparability to CHDS?

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