Author’s response to reviews

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

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Comments to Author from Reviewer #1:

Comment #1: 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.

Response: Thank you for this critique. We have added additional language to clarify this point (Lines: 148-150).

Comment #2: Thank you for evaluating risk by birth cohort. 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.

Response: We appreciate your feedback and have adjusted our language per your suggestions (Lines: 262-274).

Comment #3: Also, why did you split the cohort by births before and after 1936 rather than using 1931 for comparability to CHDS?

Response: We stratified our analyses by assuming conservatively that women born before 1936 would have had no exposures to OCs prior to menarche relative to 1948 when OCs were first registered for use in the U.S. For comparison, when we did restrict our analyses to women born after 1931, the RR for breast cancer and ANY OC use was 1.18 (0.92-1.46) (N exposed cases=78) compared to 1.00 (0.63-1.60) (N exposed cases = 21) among women who were born prior to 1931.