Reviewer's report

Title: Parental preconception exposure to bisphenol A, phthalates and birth outcomes

Version: 1 Date: 8 June 2015

Reviewer: Todd Jusko

Reviewer's report:

Overall, a well-written paper, and innovative in terms of preconception measures of EDCs. I have a few comments that I hope will improve subsequent drafts.

Major Revisions:

The temporal nature between exposure assessment and pregnancy is not clear to me. Couples were recruited and followed up to 1 year while trying to get pregnant. The text on page 5 reads, "during the enrollment home visit, couples provided urine samples..." So it's possible the enrollment visit (and urine collection) could have occurred almost a year before pregnancy? It would be useful to see a visual display of this "time from collection to conception" (e.g., histogram). Furthermore, it might warrant some sensitivity analyses examining the association between EDC concentration and outcome among those with collection times more proximal to pregnancy versus more distal sampling.

I see that total BPA was measured, but not free BPA. Given that urine specimens were collected at home, do you have any reason to believe there was significant contamination? Did you examine un-conjugated BPA in a subset of samples to rule this out? If so, it would be worth adding this to your manuscript.

While agree that using the machine-read values for concentrations <LOD is a reasonable approach, I have concerns about exposure misclassification when mCHP and mOP are predictors of interest. Indeed, you observe some associations with both, but when all you know is that the true (censored) value is below a limit of detection, caution needs to be exercised in the interpretation of these data. I would mention this specifically in your Results, and add this caveat to your Discussion section.

Minor Revisions

Many of your associations show evidence of non-linear dose--response. Do you have any explanations for why this might be?

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.
Declaration of competing interests:

Dr. Kannan is a collaborator on a pilot project of mine.