

Comment Prepared for the CASAC Teleconference of November 5, 2012

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I apologize for being unable to participate in person as the teleconference coincides with an all-day meeting at the institute I direct. I would appreciate it, however, if you would take into account three brief comments that I have about CASAC's response to the REA.

First, on the question of whether the risk estimates should be based on applying the C-R function down to zero or to the LML:

I feel neither solution is fully satisfactory. It is important to recognize that even with a linear C-R function, an extrapolation is still an extrapolation – there is no basis for estimating the mortality or morbidity response at zero ozone, and only very limited data in the region of the LDL. It seems to me preferable that EPA adopt some reference level in the region of 0.04 ppm, for which there is plenty of data to calculate a suitable reference level of mortality.

Second, I would like to comment on the statement “it is time to retire the quadratic rollback scheme” (in favor of HDDM). EPA's efforts to develop a new science-based approach to the rollback question is very welcome, but just as with current issues related to background ozone, there is plenty of scope for disagreement about the results. Meanwhile, the quadratic rollback approach has one significant thing going for it, *transparency*. Anyone with their own favorite set of ozone data can apply the quadratic rollback function to it, and see whether their estimates of the risk reduction are broadly consistent with those published by EPA. I believe EPA should use both approaches until there is a broader consensus – not least, it would be instructive to compare the risk estimates produced by the two methods.

Finally, I would like to reiterate a point I made at the September 9 CASAC meeting – the desirability, if feasible, of basing both the epidemiological estimates and the exposure assessment on the same time period and preferably also the same raw data, provided the latter can also be made public. CASAC recommends 2006-2010 for the exposure calculations, but the epidemiological estimates of Bell (2004) and Smith (2009) were based on NMMAPS data 1987-2000, a different time period during most of which a different ozone standard was in place. Is there a possibility of creating a single public dataset for both parts of the calculation? My understanding is that the NMMAPS mortality data exist post-2000 though possibly not up to 2010, and they have not been made generally available to researchers.