Hi Robin and David,

I’ve read the Phase 1 report and have a few brief comments. I think others will have more—specifically concerning the meaning of the various endpoints observed. Here are my brief thoughts:

Although the analyses and presentation is generally right on target now, there are several points at which I think the text continues to attempt to avoid or downplay the significant findings. The summary and the conclusions state “no major health effects that can be causally associated with the occupational exposure examined.” It is the nature of the cross sectional design, not the findings, that make causality difficult to assign here. In fact, while I wouldn’t necessarily say that the cholesterol findings are causal, I think the level of evidence produced is fairly substantial. Whether or not this is a ‘major health effect’ I guess is a matter of interpretation. I might suggest that again that the study design didn’t address major health effects, but rather was designed to address subtle indicators of potentially significant health effects, among which I would include elevated blood lipids.

Similarly, the ‘several important questions engendered by this work’ noted in the conclusion, are not entirely correct. In fact, I guess I would say that yes—the results are at least somewhat reproducible and seen in other worker populations since they have been seen in a previous study from two plants (Olsen, 2003—noted on p 14). Along the same lines, the second sentence of the conclusion “The large sample size produced statistically significant results...” is incorrect. The sample size may allow one to see significant results, but it cannot produce results in the absence of an effect. Similarly, on page 31, I disagree with the sentence, “Given the large number of endpoints examined, any significant results could be a statistical chance occurrence.” I agree that some findings could occur by chance (e.g. iron) but the reason why we insisted that certain hypotheses be stated up front, based on the literature, was that if those associations were observed, they would be unlikely to have occurred by chance. So, I don’t believe that saying the lipid findings could be by chance is entirely correct.

A small point—the description of the exposure groups on page 21 is very awkward. Giving a criterion related to both median and maximum levels for each group leaves a significant possibility of ambiguity. The group definitions could be simplified and clarified. In addition, you might not need to use these groups as most analyses are either continuous or by exposure decile.

That’s all for me. Good luck pulling this together for your deadline. I’ll look forward to comments from others.

Noah

Robin C Leonard wrote:

> I wanted to verify with you all that we are now looking at August 4 to issue Phase II. Lot of comments to deal with, as well as a couple more analyses, and we really do want this to be agreeable to everyone. I leave for vacation on Aug. 5, returning Aug. 21. Which means your comments on Phase I can come in on the 21st, rather than the 14th. I will try to have those comments managed in a final draft to send you on Sept. 1. Bobby and the folks downtown are OK with this schedule. Again, thanks for all