

EPA Science Advisory Board Workgroup Meeting  
Inorganic Arsenic IRIS Cancer Document  
April 7, 2010

Supplemental Information Regarding Use of Reference Population

Submitted on behalf of the  
Wood Preservative Science Council

One of the issues that arose during yesterday's discussion was the extent to which the 2007 SAB Report compels EPA to use a reference population in its analysis. The Report did not carefully evaluate the issue. Rather, it referred to the 2001 NRC report, stating:

In summary, the Panel recognizes the potential for a highly complex mode of action of iAs and its metabolites, but until more is learned about the complex pharmacokinetic and pharmacodynamic properties of iAs and its metabolites there is not sufficient justification for the choice of a specific nonlinear form of the dose-response relationship. Based on this and the EPA's 2005 Guidelines for Cancer Risk Assessment, the final recommendation of NRC (2001) to base current risk assessments on a linear dose response model that includes the southwest Taiwan population as a comparison group seems the most appropriate approach. However, the Panel also recommends performing a sensitivity analysis with different exposure metrics with the subgroup of villages with more than one well measurement (as discussed in responses to charge questions C2 and D3) and using a multiplicative model that includes a quadratic term for dose, as performed by NRC (2001) and as discussed in charge question D3. 2007 SAB report, p.44-45

Thus, the recommendation to use the comparison population has not been re-evaluated since 2001. In light of the substantial volume of new information that has been developed over the last 10 years, including, for example the data discussed yesterday, the SAB might consider asking EPA to take a fresh look at the need for a comparison population and the appropriateness of the population selected.