



Issue Statement

Communicating Biomedical Health-Related Research Findings: A Guide to Maintaining Balance and Avoiding Common Pitfalls

Scientific results involving toxicology/health issues increasingly underpin the public's ability to use chemicals safely. The range of impact includes protecting drinking water supplies and the environment, ensuring the safety of therapeutic agents, and maintaining healthful air. Yet communication of results and their interpretation within the context of actual risks posed is uneven, at best.

Some of the issues facing the toxicology community's ability to evenhandedly explain the situation regarding exposure to various substances can be addressed by asking questions concerning the results of new findings:

Premature reporting of data or results

- Are the results from studies that have been finalized and fully analyzed?
 - Are the results from preliminary studies?
 - Have the studies been completed?

Over-interpretation of results

- Is the study design sufficiently robust to support claims about potential health effects?
- Are health claims based on selected data or findings that are not statistically significant?
- Are the claims biologically plausible? Have potential alternate causes been identified and evaluated?
- Does the assessment incorporate the background rate of occurrence of adverse events? (For instance, is the age-adjusted rate of cancer in the population taken into consideration?)

Because the majority of mainstream scientists do not seek out public notoriety, the opinions and statements of the loudest or most discordant voices, which often are not representative of informed opinion, are the ones the media use as a basis for articles that get widely distributed to the public. This exacerbates the problem, leading to distrust of the mainstream scientific community and to the decisions of regulatory bodies that rely on sound science.

The purpose of this activity is not to deter new findings from being reported, but rather to ensure an understandable, balanced, unbiased, yet interesting, method of presenting the story in a manner that truthfully informs the public about the science and the state of its maturity.