

Keynote Talk

The Design of Risk Assessments: Updates on Methods for Problem Formulation, Causality Determinations and Value-of-Information Analysis

Greg Paoli, Risk Sciences, LLC

Abstract

The NASEM report, *Science and Decisions: Advancing Risk Assessment*, included a chapter entitled, *The Design of Risk Assessments*. This presentation will review the recommendations related to *Problem Formulation*, and some recent work applying the concept systematically for the European Food Safety Authority. A second key recommendation relates to the application of the concept of *Value of Information*. The concept will be described including recent applications in comparing the benefits of alternate toxicity testing strategies. A third theme addresses a novel process of inferring the probability of a causal relationship in weighing evidence from human, animal and mechanistic evidence, using *Bayesian Networks* applying Bradford Hill concepts.