

Microbial Risk Assessment Guidance Document

EPA has conducted chemical risk assessments from its inception. This experience with chemical risk assessment has provided Agency risk assessors with an enormous amount of experience. All of the current risk assessment guidance documents produced across the agency have focused on chemical stressors. Although pathogenic microorganisms have had more dramatic impacts on societies than chemical exposure, the EPA and other Federal agencies have produced relatively few microbial risk assessments (MRA). Prime reasons for this are the difficulty in conducting MRAs including the availability of relevant data and methodology. In response to growing concern for water and air quality, EPA, in conjunction with other Federal agencies, has initiated work on a MRA guidance document.

In 2002, EPA convened an interagency colloquium to address the need for developing guidance for microbial risk. In 2003 a Risk Assessment Forum (RAF) technical panel was formed. Following recommendations from the Council for Energy and Natural Resources, this initiative was expanded to include additional agencies. This draft document covers the full range of risk assessment processes: planning and scoping, hazard identification, exposure assessment, dose-response computation, risk characterization, risk management, and risk communication. Participating agencies may use the final guidance document in its current form or modify it to suit agency needs.

In support of this initiative, the workgroup has conducted a number of outreach activities. In 2006, the work group sponsored a symposium at the Society for Risk Analysis (SRA) Annual Meeting informing other government agencies of this activity and soliciting input from outside experts. In a second SRA symposium in 2007, workgroup members presented talks on the status of their activities. In February 2007, EPA conducted a workshop that considered the effect on susceptibility to infection arising from early life stage exposure to immunosuppressive chemicals. Additional products developed with the assistance of outside experts are a comparison of frameworks used in MRA, risk communication for MRA, and a thesaurus. Collectively, these have helped to inform the deliberations on the MRA guidance.

EPA and other member agencies would like to expand this outreach process through consultation with the SAB in 2008.