



Poster Submission Information

Workshops to Support EPA's Development of Human Health Assessments: 2-Part Series

GENERAL INFORMATION

The National Academies of Sciences, Engineering, and Medicine will hold a [two-part workshop series](#) to support the US Environmental Protection Agency's development of human health assessments for environmental agents. In addition to plenary speaker sessions, each workshop will include a poster session with live poster presentations.

Submit poster abstracts [here](#) by 11:59pm ET on **Monday, March 28, 2022**.

WORKSHOP-SPECIFIC DETAILS

[Triangulation of Evidence in Environmental Epidemiology](#)

May 9 and 11, 2022

In the context of this workshop, triangulation refers to the practice of integrating results to inform and strengthen causal inferences. It provides a framework for considering and utilizing as much information as possible to address a research question. Its objective is to integrate results from different approaches, recognizing that each approach may have different, unrelated sources of potential bias.

Through presentations, discussions, and poster sessions, workshop participants will aim to address these key questions:

- What is triangulation and how has it been used to synthesize results within and across epidemiologic studies?
- What challenges have been experienced in applying epidemiology in chemical hazard identification and other assessments of environmental stressors? What advancements are emerging or are envisioned to improve causal inference methodologies?
- What are the opportunities for triangulation?
- What are best practices and needs for implementing, transparently documenting, and clearly communicating application of this tool in EPA's human health assessments of chemicals?

Posters should address the use of triangulation or related evidence integration methods to inform inferences from an overall body of epidemiologic research results from different approaches having

different and unrelated intrinsic sources of potential bias or other limitations. Topics should include case studies based on an environmental stressor or an organization's use of triangulation or related methods that are directly relevant to environmental epidemiology applications

- Multiple analyses within a single study or experiment, or
- Synthesis of results from a single evidence stream, such as a body of epidemiologic studies.

Triangulation for integration across multiple evidence streams (e.g., toxicologic, epidemiologic, and mechanistic) is also of some interest, but not the main focus of this workshop.

Potential keywords for abstracts: triangulation, environmental epidemiology, occupational epidemiology, chemical hazards, bias, confounding, causal inference

Artificial Intelligence and Open Data Practices in Chemical Hazard Assessment

May 25 and 26, 2022

Practical application of systematic review (SR) methods to the peer-reviewed literature and other data sources for chemical hazard identification is labor intensive and costly. Advances in artificial intelligence hold promise to ease those constraints through semi-automation of SR workflows. Computational approaches have been advanced to interrogate, retrieve, screen, organize, and extract information from published and publicly available data sources. However, study methods and findings reported in the literature are often recorded using highly variable natural language, which can obscure concepts and relationships needed for information retrieval and interpretation. Other limitations include the lack of high-quality training, test, and validation data.

Through presentations, discussions, poster sessions, and software tool demonstrations, workshop participants will consider the following questions:

- What are the key practical hurdles for applying SR methods, especially with respect to data extraction, and what computational tools have been applied to address them?
- What strengths and limitations have been identified through application of AI solutions in SR?
- What are the key opportunities for furthering application of artificial intelligence in chemical hazard assessment?

Posters should address the application of automated and semi-automated methods to systematic reviews of the peer-reviewed literature or other relevant publicly available databases relevant for chemical hazard identification. Topics include:

- Artificial intelligence (machine learning, natural language processing, and automated data extraction) for increasing efficiency in systematic review and chemical hazard assessment pipelines

- Controlled vocabularies and ontologies for better information retrieval and interpretation.

Potential keywords for abstracts: artificial intelligence, controlled vocabulary, data extraction, machine learning, natural language processing, ontologies, systematic review, training data

FAQs

Can I submit multiple abstracts?

Yes, you may submit multiple abstracts. However, each selected author will only be invited to present one poster, regardless of how many abstracts are submitted. In order to include a range of perspectives, the committee is unlikely to select multiple posters from the same research group, though this may depend on the submissions received.

If I have a conflict of interest will my submission be rejected?

The committee is requesting conflict of interest (COI) statements to promote transparency and inform engagement with authors' work. Reporting COI information will not automatically result in the rejection of a submission.

How are posters selected for inclusion in the workshop?

The workshop planning committee, whose names are listed on the project [website](#), will review the submissions for each workshop. Abstracts will be selected for inclusion based on content, innovation, and applicability to the workshop topic descriptions listed in the above Workshop-Specific Details section. Additional information about each workshop is available on the project website.

When will I know if my abstract has been selected?

The committee will review all abstracts submitted by 11:59 pm ET on Monday, March 28, 2022. Authors who submitted abstracts for the triangulation workshop will know whether their abstract has been accepted by April 11th. Authors who submitted abstracts for the AI/data science workshop will know whether their abstract has been accepted by April 27th.

When is my poster due?

Selected abstract authors will have three weeks to prepare a poster for the workshop. Final posters for the triangulation workshop must be submitted by 9 am ET on Monday, May 2, 2022. Final posters for the AI/data workshop must be submitted by 9 am ET on Wednesday, May 18, 2022. More information will be provided via email to selected abstract authors.

Please reach out to Kaley Beins at kbeins@nas.edu with any additional questions.