

The DEEP Network

Newsletter Number 4

April 2022

Dear friends and colleagues

Welcome to the fourth DEEP Network Newsletter. As usual, this newsletter will also be available on our website:

Please send us any items that may be of interest for future newsletters

1. Recent events

33rd Annual Conference of the International Society for Environmental Epidemiology (ISEE 2021), August 23-26, 2021: Symposium Tuesday August 24 from 11:30 - 13:00 PM Eastern Time

Presentation and discussion of ISEE principles for evidence synthesis and evaluation in environmental health with invited feedback from speakers of major national and international agencies relying on evidence synthesis in environmental health, an ISEE Policy Committee symposium

The ISEE Policy Committee recently identified this topic as one of their themes that warrants ISEE activity. To this end, a subgroup has been identified, which includes Neil Pearce, David Savitz, Barbara Hoffmann, Hanna Boogaard, and others, and work is underway. Specifically, ISEE is working on developing principles for evidence synthesis in environmental health. An ISEE 2021 symposium chaired by Jon Samet and Kurt Straif is organized to present the evolving principles and invite feedback from major national and international agencies that rely on evidence synthesis in environmental health. Additional potential future steps at ISEE could be to evaluate existing frameworks against the principles and expanding on one or a few of these general principles. This potential future ISEE work needs additional discussion.

Kurt Straif, Co-chair, ISEE Europe Chapter, ISGlobal and Boston College
Presentation of ISEE Principles of Evidence Synthesis and Evaluation in
Environmental Health

Jon Samet, Co-chair, Colorado School of Public Health
Comments from the perspective of pertinent committees of the National Academy
of Sciences

Comments from the perspective of pertinent committees of the US National
Academies of Sciences, **Jonathan M Samet, United States**

Evidence Synthesis and Integration Methods used in the US Environmental
Protection Agency's (EPA) Integrated Risk Information System (IRIS)
Program, **Kristina Thayer, United States**

ISEE principles for evidence synthesis and evaluation in environmental health - Perspectives from HEI, **Daniel Greenbaum, United States**

Comments from experience on advisory and regulatory committees, **Neil Pearce, United Kingdom**

Comments from the perspective of the Cochrane Collaboration, **Lisa Bero, United States**

Fifty years of comprehensive cancer hazard identification: the IARC {Monographs} Programme's systematic review and synthesis across multiple evidence streams, **Mary K Schubauer Berigan, France**

ISEE principles for evidence synthesis and evaluation in environmental health, **Kurt Straif, Spain**

2. Future events

EPA/NAS Workshop on triangulation

As part of a series of workshops to support EPA's development of human health assessments, a joint EPA/NAS Workshop on triangulation of evidence in environmental epidemiology is being held on 9th and 11th May 2022:

<https://www.nationalacademies.org/event/05-09-2022/workshops-to-support-epas-development-of-human-health-assessments-triangulation-of-evidence-in-environmental-epidemiology>

The website for the Workshop notes that 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. For chemical health assessments, triangulation may be applied at multiple levels – for example, multiple analyses within a single study or experiment, synthesis of results within a single stream of evidence (e.g., within the body of epidemiologic studies), or integration across evidence streams (e.g., toxicological, epidemiologic, and mechanistic) informing causal determinations. 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 environmental 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?

Speakers include Deborah Lawlor, Eric Tchetege Tchetege, Neil Pearce, Mary Schubauer-Berigan, Jon Samet, Ruth Lunn, Joseph Haney, Hanna Boogaard, Roel Vermeulen, Amy Berrington de Gonzalez, David Savitz, John Jackson, Tracey Woodruff and Martyn Smith. Session summaries will be presented by Laura Beane Freeman, David Richardson and Nick Chartres.

IARC Scientific workshop and publication on Epidemiological bias assessment in cancer hazard identification

The *IARC Monographs* programme and the National Cancer Institute, USA, are jointly conducting a scientific workshop convening experts in statistical and epidemiological methodology who will examine and compile developments relevant to the assessment of bias (including its direction and magnitude) in observational epidemiology studies. Such assessments are relevant to the interpretation of evidence from case-control and cohort studies on cancer in humans. The focus of the workshop is on methods and tools that can be employed during cancer hazard identification by expert Working Groups (such as those convened by the *IARC Monographs*). This workshop will result in the publication of a new volume in the IARC Scientific Publications series *Statistical methods in cancer research*. The workshop will be held in Lyon, France, on 17–21 October 2022. For more information:

[Scientific workshop and publication on Epidemiological bias assessment in cancer hazard identification – IARC Monographs on the Identification of Carcinogenic Hazards to Humans \(who.int\)](https://www.who.int/news-room/press-releases/2022/08/iarc-workshop)

3. Relevant publications by DEEP members

Etzel RA, Grandjean P, Ozonoff DM. Environmental epidemiology in a crossfire. *Environmental Health* 2021; 20: 91.

[<https://ehjournal.biomedcentral.com/articles/10.1186/s12940-021-00776-1>]

Soskolne CL, Kramer S, Ramos-Bonilla JP, Mandrioli D, Sass J, Gochfield M, Cranor CF, Advani S, Bero LA. Toolkit for detecting misused epidemiological methods. *Environmental Health* 2021; 20: 90. [<https://ehjournal.biomedcentral.com/articles/10.1186/s12940-021-00771-6>]

[For more information on DEEP, see our website:

<https://www.lshtm.ac.uk/research/centres-projects-groups/degrading-epidemiology-network>]