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## HAWC (Health Assessment Workspace Collaborative): a Modular Web-Based Interface to Facilitate Development of Human Health Assessments of Chemicals

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Regulatory agencies around the world conduct assessments to determine the potential for chemicals to pose a threat to human-health. These assessments typically consist of a critical review of available studies to identify adverse health effects of chemicals and to characterize exposure-response relationships. Recent reviews of these assessments have called for greater transparency of the process used and decisions made. In addition, advances in methodologies such as the systematic review of studies, and advances in science such as high-throughput screening data, may improve the conclusions of an assessment, but may further complicate development and presentation. In this project, we aimed at addressing these challenges by creating a modular content-management system designed to synthesize multiple data sources into overall human health assessments of chemicals. First, a list of modules and requirements were identified for the creation of a web-based workspace. Next, we created an online prototype using these requirements, HAWC (Health Assessment Workspace Collaborative, <https://hawcproject.org/>). This online application documents overall workflow of assessment creation, from literature search and systematic-review, to data extraction, dose-response analysis, evidence synthesis, uncertainty characterization, and finally the creation of customized reports. Finally, completed and ongoing assessments were entered into HAWC to better understand the potential and limitations of the workspace design. Overall, this project creates a clear and concise summary of the results of an assessment, provides a workspace for teams to collaborate on ongoing assessments, and enhances transparency by providing online access to the data and scientific decisions used to drive the conclusions of these human health assessments of chemicals.

### Committee:

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