

EPA'S HERO DATABASE

Background

EPA's Office of Research and Development created the Health and Environmental Research Online (HERO) database to facilitate complete, sustainable, transparent and efficient scientific assessment development. The database includes more than 2,500,000 scientific articles from the peer-reviewed literature and state of the art information management tools to support evaluation and use of scientific information by EPA. HERO provides the scientific foundation for Integrated Science Assessments (ISA), Integrated Risk Information System (IRIS) assessments, and other science assessments such as the Provisional Peer Reviewed Toxicity Values (PPRTV). These assessments support critical air, water, land and Superfund decision-making to protect human health and the environment.

HERO is an evergreen database. This means that new studies are continuously added so scientists can keep abreast of new research. References are then sorted, classified and made available through HERO.

Features of HERO

Database: At its heart, HERO consists of an ever-expanding database of scientific literature used to develop EPA's risk assessments aimed at understanding the health and environmental effects of pollutants and chemicals.



Literature Search: A systematic, sustainable set of procedures and tools to facilitate advanced literature searching, screening and data classification using natural language and cutting-edge tools are used to mine the vast body of research.

Data Mining: HERO employs innovative, efficient technologies for intelligent information extraction, retrieval and synthesis.

Transparency: Assessments are published with hyperlinks in the text to allow stakeholders to view more information than a traditional reference list. Public participation via a public access [website](#) provides transparency to the science behind EPA's decision-making processes used for protecting human health the environment.

Agility: Tools and processes are created and linked to meet the evolving needs of scientists, collaborators and stakeholders.

Continuous Updating: As new literature is published, studies are added and metadata applied automatically so scientists can keep abreast of new research in their fields.

Scientific Integrity: Scientific integrity depends on independence, accountability, innovation and transparency. HERO advances those values through systematic, comprehensive search and screening techniques, and public and stakeholder participation in the identification of key research.

HERO is part of the open government directive to conduct business with transparency, participation, and collaboration. Every American has the right to know the studies underlying EPA's regulatory process. Through HERO, the public can participate in the decision-making process.

Contact

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