Support NIEHS for a Healthy Iowa!

ehsrc environmental health sciences research center

IOWA College of Public Health

In Iowa and across the nation, the National Institute of Environmental Health Sciences (NIEHS) funds groundbreaking research to protect people's health by reducing our exposure to environmental hazards like air pollution, industrial chemicals, and extreme weather.

The University of Iowa's Environmental Health Sciences Research Center (EHSRC) is the only NIEHS environmental health research center in the Great Plains/Midwest region. The EHSRC focuses on pressing issues in Iowa and other rural Midwestern communities, including:

- **Protecting people from naturally occurring carcinogens** like radon and arsenic
- **Keeping farmers healthy** by controlling exposure to dust, fumes, and pesticides
- **Helping people with lung disease** adapt to extreme weather and floods

NIEHS Research Is an Economic Driver in Iowa

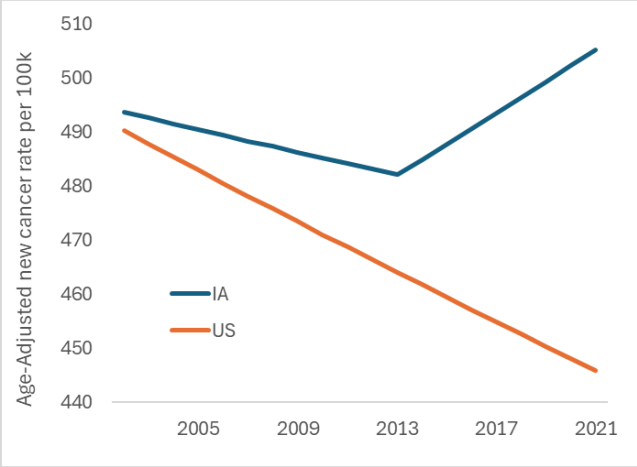
Environmental health sciences research is an economic powerhouse in Iowa, with **$2.38 in economic activity** for every dollar invested[1]. The economic benefits from EHSRC include:

$64.6 M in economic activity generated since 2007

Over 100 patents by EHSRC researchers since 2007

$9 in additional grants awarded for each $1 invested in our Pilot Grants

NIEHS and EHSRC: Fighting for Iowa's Health



Iowa has the **second highest age-adjusted rate of new cancers**, with nearly 20,000 people diagnosed annually. We are one of only two states where the rate is rising[2]. Our state also has rising rates of chronic respiratory diseases, diabetes, and Parkinson's disease[3].

A growing body of research links chronic diseases to environmental exposures. **The EHSRC needs consistent funding from NIEHS to address these emerging threats and help keep Iowa healthy.**

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Questions? Contact Hans-Joachim Lehmler, EHSRC Director, at hans-joachim-lehmler@uiowa.edu, or visit our website EHSRC.org

EHSRC Successes: Saving Lives, Reducing Healthcare Costs

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We "Wrote the Book" on Radon

Iowa has the nation's highest concentration of radon, a naturally occurring radioactive gas in soil and rocks. The late Dr. Bill Field, a former EHSRC member, played a key role in **discovering that radon is the leading cause of lung cancer among non-smokers.** With growing awareness of radon's dangers, over 53,000 radon mitigation systems have been installed in Iowa homes since 2010, protecting nearly 128,000 people[4]. Dr. Field was also a key author of the World Health Organization's 2009 Handbook on Interior Radon: A Public Health Perspective, which has helped many countries start their own radon programs.

We Protect the Health of Farmers

Photo Credit: CS-CASH

Since 1993, about 59,000 Iowa farmers, commercial pesticide applicators, and their spouses have participated in the NIEHS/National Cancer Institute Agricultural Health Study (AHS). Through this study, EHSRC-supported scientists have found links between agricultural pesticide exposure and certain cancers and chronic lung conditions, Parkinson's disease, and depression. By uncovering these health risks, the AHS has helped shape policies and communication strategies that **reduce disease, lower healthcare costs, and improve worker productivity in the agricultural sector.**

We Support Groundbreaking Cancer Treatments

Air pollutants and agricultural chemicals can contain free radicals, or unstable molecules that can damage human cells and cause cancer. EHSRC member Garry Buettner and his colleagues have discovered how **high doses of Vitamin C can damage tumor cells while having less effect on healthy cells in cancer patients.** This discovery can lead to more effective cancer treatments. Dr. Buettner also helped develop a simple and inexpensive lab method to measure Vitamin C in human cells.

1. United for Medical Research. 2025. NIH's Role in Sustaining the US Economy. Accessed 4/8/2025.
2. NCI. 2023. State Cancer Profiles: Incidence Rate Report by State (from National Program of Cancer Registries [NPCR] and Surveillance, Epidemiology, and End Results [SEER]). Accessed 4/8/2025.
3. Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease [GBD] Results [1990-2021 age-standardized incidence rates per 100k]. Seattle, WA: IHME, University of Washington, 2024. Accessed 4/4/2025.
4. Calculated from IA Department of Natural Resources data on radon systems installed; and American Community Survey data on IA avg. household size: 1-year estimates except for 2020 (5y estimate) and 2018 (missing value filled with avg. of 2017 and 2019 values).

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