IRENE Newsletter

IOWA RESEARCH NETWORK

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Our Mission and Purpose

IRENE's mission is to improve the health and well-being of Iowans through collaboration in practice-based research on questions important to primary care physicians and their patients. IRENE's purpose is to create and foster a network of research collaboration between the academic medical center and primary care physicians throughout the state of Iowa with a particular focus on improving rural health.

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Information About...

Radon Testing in Northeast Iowa: A Community Engagement Study

Cynthia Wolff, MD; Barcey Levy, PhD, MD; Jeanette Daly, PhD; Yinghui Xu, MS; Lori Heeren; Paul Niles; Heather Morehead

Cynthia K. Wolff, MD

Dr. Cynthia Wolff, at the Akron Mercy Medical Clinic in Akron, Iowa, became very interested in radon after attending presentations at the Iowa Cancer Summit held in October 2012. Dr. Wolff has been an active community leader, raising awareness about colon cancer screening and other public health issues in her community. After the Iowa Cancer Summit, she had her home tested for radon and obtained a level of 39.2 pCi/L. 4 pCi/L is the Environmental Protection Agency's action level. She approached Dr. Levy to submit a proposal to the Iowa Cancer Consortium for funding to provide radon kits to her patients free of charge. High radon levels are prevalent throughout the state of Iowa and radon is the second leading cause of lung cancer overall.

A grant for $5,000 was awarded by the Iowa Cancer Consortium for this study. The main goals of the study were to educate individuals about the dangers of radon, measure radon levels in homes in NW Iowa, and correlate with features of the home. The main outcome of the study was home radon levels.

Participants obtained a radon kit through contact with their primary care office or by attending a seminar held by their primary care physician or other office staff. Participants completed a short, investigator-developed questionnaire about their home, heating, and demographics.

Fourteen community presentations have been held by Dr. Wolff and Paul Niles with over 400 individuals attending. A total of 551 questionnaires have been completed; 277 radon results returned. The mean level of radon was 10.6 ± 9.1 pCi/L. Eighty-three percent of homes had a level above 4 pCi/L, the Environmental Protection Agency's action level. Homes were built on average 56 years ago, an average of 3.4 individuals lived in the homes, and 11% had tested their home previously. Only 2.4% had mitigated previously. There was no significant difference in radon level by type of home heating or income level. Individual who considered their homes to be well-insulated had higher mean radon levels than those whose homes were less well insulated (11.5 vs. 8.5, t-test, p=.0122). In response to presentations and publicity, the city has explored ways to find more inexpensive mitigation for those who cannot afford it. A list of certified mitigators has been compiled.

The vast majority of homes tested had radon levels that exceeded recommended maximum levels. This project has led to increased awareness of radon in the community and ways for individuals to obtain funds to mitigate their homes, thereby potentially reduced their risk of being one of the estimated 400 lives lost annually in Iowa due to radon-induced lung cancer.

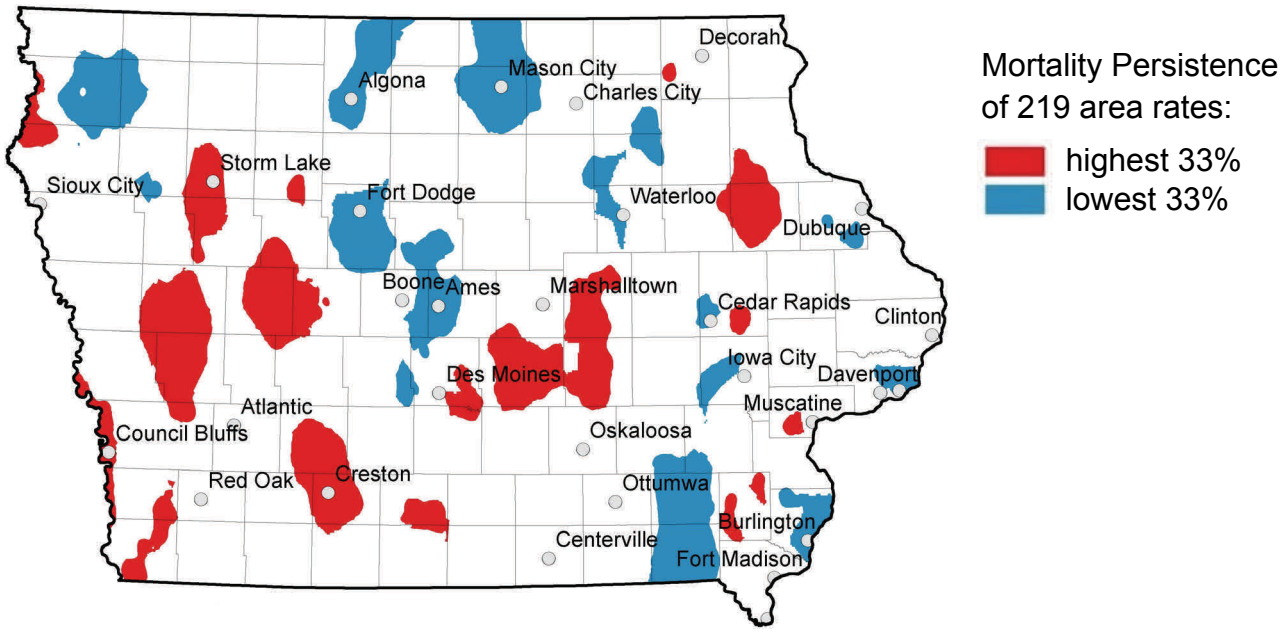
Acknowledgements: Iowa Cancer Consortium, Iowa Department of Public Health, National Cancer Institute (NCI) RC4 CA153493, Akron Mercy Medical Clinic, The University of Iowa Departments of Family Medicine and Epidemiology

INFORMATION ABOUT...

Enhancing Community-based Cancer Control in Iowa

This proposal was funded by the National Institutes of Health in August, 2010 and ends this July, 2013. As principal investigator, Barcey Levy was successful in accomplishing the goals of the study. The main focus was on strengthening the research infrastructure provided by the Iowa Research Network, the Iowa Cancer Consortium, and the Holden Comprehensive Cancer Center to enhance their ability to perform community-based research. This infrastructure was supported at three levels: 1) enhancing our ability to analyze data from different sources, 2) enhancing the productivity of community-based cancer control research currently being performed across the State by encouraging interdisciplinary collaboration and interaction, and 3) increasing the participation in cancer control research by IRENE practices across Iowa.

Maps were created to illustrate the distribution of CRC burden across Iowa. Kevin Matthews, a PhD student in the Department of Geography, created maps of colorectal cancer incidence, late-stage incidence and mortality using data from the Iowa Cancer Registry, a SEER (Surveillance Epidemiology and End Results) registry. These maps show areas where each disease measure is persistently high (shown as red) or low (blue). They are called persistence maps, which display long-term disease patterns that are relatively high or low in all time periods. They identify areas for cancer control that are potentially more suitable for targeted interventions, public expenditures, or other resource allocations. To see how the geographic patterns of CRC changed over time, go to http://www.uiowa.edu/iowacancermaps2.



For enhancing community engagement, five community assistants were hired to host community cancer forums throughout the state as a way to provide current cancer information and identify concerns among Iowa's communities. The community assistants have hosed more than 106 forums/presentations to over 1,800 community members. The main focus of the forums was colorectal cancer screening, cancer prevention, and health lifestyles.

For increasing the participation in future cancer research, eight training sessions (with CMEs offered) to family medicine clinic physicians and staff across Iowa were held across the state. These training sessions included information on:

- Screening options for CRC, including technical information related to newer fecal occult blood tests.
- Use of tablet computers in practice settings.
- A list of cancer-related patient/physician resources that could be used with the tablets.
- Protection of human subjects in research.
- Colon cancer models for patient education.

This project has created the opportunity for future collaboration and cancer research in the state of Iowa. Five community assistants are now available across the state with contacts and resources, 118 primary care physicians and office employees are certified in human subject research, 84 primary care offices have iPads for education and research, and all are aware of the cancer resources at the University of Iowa.

RECENT IRENE PUBLICATIONS

1. Daly JM, Xu Y, Levy BT. Patients whose physicians recommend colonoscopy and those who follow through. *Journal of Primary Care and Community Health.* 2013;4(2)83–94.
2. Daly JM, Bay C, Levy BT. Evaluation of fecal immunochemical tests for colorectal cancer screening. *Journal of Primary Care & Community Health.* 2013 May 12 [Epub ahead of print]
3. Daly JM, Bay C, Levy BT. Use of fecal immunochemical tests in the Iowa Research Network. *Journal of Cancer Education.* 2013 May 18. [Epub ahead of print]
4. Levy BT, Xu Y, Daly JM, Ely JW. A randomized controlled trial to improve colon cancer screening in rural patients attending family physician practices. Accepted by the *Journal of the American Board of Family Medicine.*
5. Charlton M, Mengeling M, Halfdanarson T, Makki N, Malhotra A, Klutts J, Levy B, Kaboli P. Rural access to colorectal cancer screening: A home-based intervention. Submitted to *The Journal of Rural Health.*

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INFORMATION ABOUT...

Fecal Immunochemical Distribution in the Iowa Research Network

Eight Iowa Research Network primary care offices are providing fecal immunochemical test (FIT) cards to 50 patients who don't have the resources to complete a colorectal cancer screening test. Site liaisons are responsible for providing the FIT to their patients. A subject questionnaire is attached to the take home FIT to determine age, gender, zip code, and total family income. The site liaison keeps track of the FITs handed out and documents if the results are negative or positive. After the 50 FITs are handed out, the site liaison mails the data collection log to the research team. The purpose of the study is to determine how many FITs will be returned to the primary care office. The questionnaires and data collection log information is entered in a database at the University of Iowa research office.

Following is a list of IRENE members and offices participating.

Name	Clinic	City	State
Lonny Miller	Family Practice/Greater Regional Medical Clinics	Creston	Iowa
Cynthia Wolff	Akron Medical Center	Akron	Iowa
John Carroll	McFarland Clinic	Carroll	Iowa
Jon Ahrendsen	Wright Medical Center Family Practice Clinic	Clarion	Iowa
Lacey Naaktgeboren	Proteus, Inc	Des Moines	Iowa
Noreen O'Shea	Elk Point Community Health Clinic	Elk Point	South Dakota
Alison Carleton	Carleton Family Medicine	Nevada	Iowa
Teresa Coon	State Street's Women's Health Center	Bettendorf	Iowa

IRENE Researcher Retires

John W. Ely, MD, MPH retired this July after 21 years in the Department of Family Medicine, University of Iowa. Many IRENE physicians worked with Dr. Ely on his research: patient-care questions that physicians are unable to answer. As Professor Emeritus, he will continue conducting his research in retirement.

Dr. Ely practiced in Lake City, IA from July 1977 to July 1990. He completed a Faculty Development Fellowship at the University of Missouri-Columbia from 1990 to 1992. Dr. Ely has received numerous awards for his research and teaching including the Iowa Academy of Family Physicians Educator of the Year Award in 1995, the Best Research Paper Honorable Mention Award in 1997 and 2001 from the Society of Teachers of Family Medicine, the North America Primary Care Research Group (NAPCRG) 2005 Distinguished Paper Award, The University of Iowa Family Practice Residents' Teacher of the Year Award in 2005–2006, and The University of Iowa Carver College of Medicine Collegiate Teaching Award 2006–2007. He was ranked in the top 10% of reviewers by the Journal of the American Board of Family Medicine 2008–2009. He is perhaps best known for his research on how physicians answer questions that arise in daily practice and his work on checklists for preventing diagnostic errors. He provides a terrific example of a scholar, teacher, and compassionate and thorough physician and will be greatly missed by patients and colleagues alike.