
Michael K. Reger, Ph.D., M.P.H

Education

- **Ph.D.** Epidemiology, Indiana University, Indianapolis, IN 2014
 - **Minor:** Health Informatics
- **M.P.H.** Epidemiology, Indiana University, Indianapolis, IN 2009
- **B.S.** Health Science, Purdue University, West Lafayette, IN 2005
 - Minors:** Biology and Organizational Leadership

Research Interests

My research is focused on modifiable risk factors, particularly nutritional factors, associated with the risk of specific chronic conditions. Although knowledge of the biological mechanisms of chronic diseases has expanded greatly due to the emergence of more accessible genetic information and increased experimental studies, there is still a great deal of data that remains underutilized, with many potential risk factors left unexplored by epidemiologists. My work to this point has involved the analysis of existing national datasets using rigorous statistical tests to determine the association between one of these underexplored modifiable risk factors, phytoestrogens, and the risk of cancer or cardiovascular disease. The principal goal of epidemiology remains the primary prevention of disease, and I am committed to the identification of factors that may assist in the alleviation of the disease burden resulting from these chronic conditions. Moving forward, I am interested in utilizing additional data sources and statistical tests to explore nutritional and other risk factors and their association with a variety of chronic conditions.

In the immediate future my research plans include:

- Utilizing the PLCO data to determine the association between phytoestrogens and other hormone related cancers (breast, colorectal, and ovarian cancers)
- Utilizing updated mortality data from NHANES to further explore the relationship between phytoestrogens and cardiovascular disease or cancer

My longer-term goals are focused on the identification of genetic risk factors that may influence the association between phytoestrogens or other nutrients and chronic disease. The identification of both genetic and nutritional factors associated with an increased risk of chronic conditions will assist in the determination of the highest risk populations. With this knowledge, health care providers and other entities will be better able to focus their efforts and resources, thereby increasing the opportunity for primary disease prevention.

Awards

- Purdue University MPH Program Online Faculty of the Year 2020
- Ferris State University Summer Research Grant 2018
- Ferris State University Faculty Research Award 2017
- Ferris State University Faculty Research Grant 2017
- Delta Omega Honorary Society in Public Health 2015
- Indiana University Fairbanks School of Public Health Doctoral Dissertation Fellowship 2013
- Indiana University Center for Urban Health Fellowship 2010

Professional Experience

- **Appointments**

University of Notre Dame, Associate Professor of the Practice 2022-Present
Eck Institute for Global Health

Ferris State University, Tenured Associate Professor 2019-2022
College of Health Professions

Ferris State University, Assistant Professor 2014-2019
College of Health Professions

Ferris State University, MPH Program Coordinator 2018-2022
College of Health Professions

Purdue University, Limited-Term Lecturer 2018-Present
College of Health and Human Sciences

- **Professional Organization Memberships**

American Public Health Association – Member 2014-Present

Delta Omega Honorary Society in Public Health – Member 2015-Present

International Journal of Lungs and Respiratory Systems – Editorial Board 2017-Present

- **Research Experience**

Ferris State University, Vision Research Institute 2015-2022
Michigan College of Optometry

Ferris State University, School of Pharmacy 2015-2022
Partnership between the School of Pharmacy and
The Robertson Research Institute

Indiana University, Doctoral Dissertation Fellow 2013-2014
Richard M. Fairbanks School of Public Health

Indiana University, Graduate Research Assistant 2012-2013
Richard M. Fairbanks School of Public Health

Indiana University, Center for Urban Health Fellow 2010-2011
School of Science

- **Teaching Experience**

University of Notre Dame
Graduate Level (MSGH)
• GH60589 – Fundamentals of Epidemiology 2022-Present

Ferris State University
Undergraduate Level
• COHP 300 – Health Information Systems 2015-2022
• COHP 317 – Public Health Administration 2015-2022
• COHP 350 – Statistics in Health Care 2014-2018
• COHP 352 – Health and Physical Aspects of Aging 2015-2016
• PUBH 320 – Nutrition and Health 2016-2022
• PUBH 330 – Environmental Health 2020-2022
• PUBH 350 – Epidemiology 2016-2022
• PUBH 355 – Chronic Disease Epidemiology 2018-2022
• PUBH 410 – Infectious/Communicable Disease Epidemiology 2016-2022

Graduate Level (MPH)
• PUBH 510 – Biostatistics in Public Health 2018-2022
• PUBH 520 – Health Behavior and Health Promotion in Public Health 2020-2022
• PUBH 530 – Environmental Health Sciences 2018-2022
• PUBH 550 – Epidemiology 2015-2022
• PUBH 555 – Chronic Disease Epidemiology 2018-2022

Purdue University
Graduate Level (MPH)
• PUBH 590 – Culminating Experience 2020
• PUBH 601 – Introduction to Quantitative Methods of Public Health 2018-Present
• PUBH 607 – Public Health Practicum 2022

Indiana University

Undergraduate Level

- PBHL A322 – Principles of Epidemiology (primary instructor) 2011-2012

Graduate Level

- PBHL E715 – Design and Implementation of Observational Studies (guest lecturer) 2010
- PBHL E775 – Doctoral Research Seminar (guest lecturer) 2013

- **Developed Courses**

University of Notre Dame

Undergraduate Level

- GH20600 – Introduction to Epidemiology

Graduate Level (MSGH)

- GH60589 – Fundamentals of Epidemiology

Purdue University

Graduate Level (MPH)

- PUBH 601 – Introduction to Quantitative Methods of Public Health
- PUBH 607 – Public Health Practicum

Ferris State University

Undergraduate Level (BSPH)

- PUBH 320 – Nutrition and Health
- PUBH 330 – Environmental Health
- PUBH 350 – Epidemiology
- PUBH 355 – Chronic Disease Epidemiology
- PUBH 410 – Infectious/Communicable Disease Epidemiology

Graduate Level (MPH)

- PUBH 510 – Biostatistics in Public Health
- PUBH 520 – Health Behavior and Health Promotion in Public Health
- PUBH 530 – Environmental Health Sciences
- PUBH 550 – Epidemiology
- PUBH 555 – Chronic Disease Epidemiology

- **Miscellaneous**

Ferris State University

- MPH Program and CEPH Coordinator 2018-2022
- Academic Advisor for BSPH and MPH students 2015-2022
- Faculty Advisor to Registered Student Organization – Global Brigades 2015-2018
- Chair: College of Health Professions Awards Committee 2015-2019
- Chair: Research Team - Improving Student Success Online Grant 2015-2018
- University Graduate and Professional Council 2018-2022
- College of Health Professions Graduate Leadership Council 2018-2022
- Executive Board Member – School of Pharmacy and Robertson Research Institute Collaboration 2015-2022
- Data Analysis – College of Optometry Vision Research Institute 2015-2022
- College of Health Professions Health and Safety Committee 2019-2022
- College of Health Professions Diversity and Inclusion Committee 2020-2022
- College of Health Professions COVID-19 Taskforce 2020-2022

Mentoring

Advising BSPH Students

- Kianna Dehoek (2014 – 2017): graduated
- Liberty Davenport (2015 – 2017): graduated
- Bryanna Williams (2016 – 2019): graduated
- John Ringler (2015 – 2019): graduated
- Bryanna Harlan (2016 – 2019): graduated
- Junsin Park (2016 – 2019): graduated
- Samuel Stover (2016 – 2021)
- Molly Holbrook (2017 – 2021): graduated
- Jessica McFarland (2018 – 2022)
- Vestine Nyirabarere (2018 – 2022): graduated
- Tyler Wigent (2018 – 2022): graduated
- Ricki Batenburg (2019 – 2022): graduated
- Anna Donahue (2019 – 2022)
- Antonio Ponce (2019 – 2022)
- Jennifer Zuniga (2019 – 2022)

Advising MPH Students

- Jodi Maslowski (2015 – 2018): graduated
- Krystal Johnson (2015 – 2018): graduated
- Kelli Fedder (2016 – 2019): graduated
- Nicholas Freiburger (2016 – 2020): graduated
- Rebecca Kastner (2017 – 2021): graduated
- Edison Sexton (2017 – 2020)
- Katie Axford (2018 – 2021): graduated
- Ashton Morris (2018 – 2021): graduated
- Denise Byrnes (2019 – 2022)
- Cassandra Kolka (2019 – 2021)
- Elyse Greene (2019 – 2022): graduated
- Bryanna Harlan (2019 – 2021): graduated
- Amanda Mishler (2019 – 2022): graduated
- Amie Quist (2019 – 2022): graduated
- Taylor Scott (2019 – 2022)
- Samarah Rana (2020 – 2022)

Publications

Peer Reviewed Manuscripts

1. Fan, H., Yu, Y., Nan, H., Hoyt, M., **Reger, MK.**, Anderson, K., Zhang, J. "Associations between intake of calcium, magnesium, and phosphorus and risk of pancreatic cancer: A population-based, case-control study in Minnesota." *British Journal of Nutrition*, 2021; Accepted for publication
2. Wang, K., Qu, Q., Li, Z., **Reger, MK.**, Xiong, Y, Zhong, G., Li, Q., Zhang, X., Li, H., Foukakis, T., Xiang, T., Zhang, J., Ren, G. "Vitamin K intake and breast cancer incidence and death: results from a prospective cohort study." *Clinical Nutrition*, 2020; Online ahead of print.
3. Hoyt, M., **Reger, MK.**, Marley, A., Fan, H., Nan, H., Liu, Z., & Zhang, J. "Vitamin K intake and prostate cancer risk in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial." *American Journal of Clinical Nutrition*, 2019; 109(2), pgs. 392-401.
4. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J. "Dietary intake of isoflavones and coumestrol and the risk of prostate cancer in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial." *International Journal of Cancer*, 2018; 142(4), pgs. 719-728.
5. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J. "Association between urinary phytoestrogens and C-reactive protein in the continuous National Health and Nutrition Examination Survey." *Journal of the American College of Nutrition*. 2017; 36(6), pgs. 434-441.
6. Njoku, A., Wakeel, F., **Reger, MK.**, Jadhav, E., Wan, M., Rowan, J., "Development of a Learner-Centered Curriculum for a Rural Public Health Program." *International Journal of Teaching and Learning in Higher Education*, 2017; 29(3), pgs. 560-570.
7. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J. "Urinary phytoestrogens and cancer, cardiovascular, and all-cause mortality in the continuous National Health and Nutrition Examination Survey." *European Journal of Nutrition*. 2016; 55(3), pgs. 1029-40.
8. Humbert L, Saywell RM, Zollinger TW, Priest CF, **Reger MK**, & Kochhar K. "The Effect of Pregnancy Intention on Important Maternal Behaviors and Satisfaction with Care in a Socially and Economically At-Risk Population." *Maternal and Child Health Journal (MCHJ)* 2011; 15(7), pgs. 1055-66.
9. Kochhar K, Saywell RM, Zollinger TW, Mandzuk CM, Haas DM, Howell LK, Sevilla JM, & **Reger MK**. "Herbal Remedy Use Among Hispanic Women During Pregnancy and While Breast Feeding: Are Physicians Informed?" *Hispanic Health Care International (HHCI)* 2010; 8(2), pgs. 93-106.

Other Publications

1. Frasher, B., **Reger, M.K.** "Phytoestrogen Intake and the Risk of Total and Advanced Colorectal Cancer." West Michigan Regional Undergraduate Science Research Conference, November 2018 (poster).
2. Frasher, B., **Reger, M.K.** "Phytoestrogen Intake and the Risk of Total and Advanced Colorectal Cancer." Michigan Premier Public Health Conference, October 2018 (poster).
3. Morris, A., **Reger, M.K.**, Zhang, J. "The Relationship Between Aflatoxin Exposure and Nutritional Biomarkers in the National Health and Nutrition Examination Survey." Michigan Premier Public Health Conference, October 2018 (poster).
4. Dowling, T.C., **Reger, M.K.**, Roff, B., Durst, S.W., Robertson, J. "Student Pharmacist's Competencies Achieved During a Pilot Co-Curricular Training Program in Precision-Based Behavioral Medicine." American Association of Colleges of Pharmacy (AACP) Annual Conference, Nashville, July 2017 (poster).

5. Njoku, A., Wakeel, F., **Reger, MK.**, Jadhav, E., & Wan, M., "Academic-Community Partnerships to Promote Public Health in Rural Communities: Preliminary Findings from a New Public Health Program in a Midwestern University." Hawaii International Conference on Education, Honolulu, January 2016 (poster).
6. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J. "Association between urinary phytoestrogens and C-reactive protein in the continuous National Health and Nutrition Examination Survey." American Public Health Association 143rd Annual Meeting and Exposition, Chicago, November 2015 (poster).
7. Njoku, A., Wakeel, F., **Reger, MK.**, Jadhav, E., Wan, M., & Rowan, J., "Development of a Learner-Centered Curriculum for a Rural Public Health Program." American Public Health Association 143rd Annual Meeting and Exposition, Chicago, November 2015 (poster).
8. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J., "Dietary Intake of Phytoestrogens and the Risk of Prostate Cancer in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial." American Association for Cancer Research 106th Annual Meeting, Philadelphia, April 2015 (abstract).
9. Hutber, A.C., Williams, J., **Reger, MK.**, Seyffarth, C.G., & Zollinger, T.W., "Physician Attitudes about Patient Physical Activity Counseling and Referrals." For the American College of Sports Medicine, *Exercise is Medicine* © program, December 2013.
10. Hutber, A.C., Williams, J., Seyffarth, C.G., **Reger, MK.**, & Zollinger, T.W. "Physician Attitudes about Patient Physical Activity Counseling and Referrals." American Public Health Association 141st Annual Meeting and Exposition, Boston, November 2013 (poster).
11. **Reger, MK.**, Harris, E., Wessel, J., Litton, C., Schubert, F., Golichowski, A., & Lee, MJ. "Analysis of Spatial Variation in Prenatally Diagnosed Congenital Anomalies in Indiana." The Society for Maternal-Fetal Medicine Annual Meeting, San Francisco, 2013. (Poster).
12. **Reger, MK.**, Mahoui, M., & Zollinger, T.W. "Good Samaritan Hospital Community-Based Needs Assessment: Summary Report." Good Samaritan Hospital. May 2013.
13. **Reger, MK.**, Harris, E., Wessel, J., Litton, C., Schubert, F., Golichowski, A., & Lee, MJ. "Analysis of Spatial Variation in Prenatally Diagnosed Congenital Anomalies in Indiana." First Annual Public Health Research and Service Symposium, Indianapolis, 2012. (Poster).
14. Humbert, L., Saywell, R.M., Zollinger, T.W., Priest, C.F., **Reger, MK.**, & Kochhar, K. "The Effects of Pregnancy Intention on Maternal Behaviors and Satisfaction with Care." 2011 National Perinatal Association Conference, Louisville, October 2011 (poster).
15. Humbert, L., Saywell, R.M., Zollinger, T.W., Priest, C.F., **Reger, MK.**, & Kochhar, K. "The Effect of Pregnancy Intention on Important Behaviors during Pregnancy and Satisfaction with Care in a Socially At-risk Population." 20th Anniversary CityMatCH Conference: Urban Maternal and Child Health Leadership, Chicago, September 2010.
16. Zollinger, TW. Kochhar, K., **Reger, MK.**, & Alyea, JM. "2007 Indiana Registered nurse Re-Licensure Survey Report." Indiana Center for Health Workforce Studies. 2010.
17. Allen DI, Zollinger, TW, Kochhar, K., & **Reger, MK.** Chowdhury, S. "Responses to the 2003, 2005, and 2007 Indiana Physician Surveys." For the Indiana Area Health Education Centers Program, April 2009.

Conference Presentations

1. Hoyt, M., **Reger, MK.**, Zhang, J. No association between vitamin K intake and prostate cancer risk in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial (PLCO). Indiana University Simon Cancer Center Cancer Research Day, Indianapolis, IN, 5/17/2017
2. **Reger, MK.**, Zollinger, T., Liu, Z., Jones, J., & Zhang, J. Association between urinary phytoestrogens and C-reactive protein in the continuous National Health and Nutrition Examination Survey. 2016 Epidemiology Congress of the Americas meeting, Miami, FL, 6/21-24, 2016

Manuscripts in Process

1. **Reger, MK.**, Hoyt, M., Nan, H., Fan, H., Zhang, J. "Dietary fat intake, cigarette smoking, and lung cancer risk in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial." (in process)
2. **Reger, MK.**, Frasher, B. "Phytoestrogen intake and the risk of total and advanced colorectal cancer." (In process)
3. **Reger, MK.**, Black, A., Hsing, A., Liu, Z., & Zhang, J. "Interaction between fat intake and cigarette smoking in relation to lung cancer in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial. (In process)
4. **Reger, MK.**, Morris, A., Hill, A., & Zhang, J. "The relationship between aflatoxin exposure and nutritional biomarkers in the National Health and Nutrition Examination Survey." (in process)
5. **Reger, MK.** & Winkler, D. "Prostate specific antigen disparities in the National Health and Nutrition Examination Survey." (in process)
6. Bush, S., Damari, D., Hinkley, S., Brown, S., Jenerou, A., **Reger, MK.**, & Buckingham, R. "The impact of binocular vision and tracking intervention on standardized test scores and special education placement in elementary school." (in process).
7. **Reger, MK.**, Harris, E., Wessel, J., Litton, C., Schubert, F., Golichowski, A., & Lee, M.J. "Analysis of Spatial Variation in Prenatally Diagnosed Congenital Anomalies in Indiana." (in process)

Manuscripts Featured in Media

1. **Reger, MK.**, Zollinger, TW., Liu, Z., Jones, JF., & Zhang, J. "Dietary intake of phytoestrogens and the risk of prostate cancer in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial. *International Journal of Cancer*, 2018; 142(4), pgs. 719-728.
 - This paper has received widespread media attention. Beginning in November 2017, it has been featured in MedicalNewsToday, Wiley Research Headlines, UK Daily Express Online, Men's Health, NEWSMAXHealth, and NUTRA Ingredients.

Grants

Internal Grants:

Title: Phytoestrogen Intake and the Risk of Total and Advanced Colorectal Cancer

Granting Agency: Ferris State University Summer Research Fellowship

Amount: \$5,850

Dates: 5/14/2018 – 8/22/2018

Role: Principal Investigator and Faculty Mentor

Title: Prostate Cancer Mortality Disparities in the National Health and Nutrition Examination Survey

Granting Agency: Ferris State University Faculty Research Grant

Amount: \$1,500

Dates: 8/2016 – 7/2017

Role: Principal Investigator and Faculty Mentor

External Grants:

Title: Reducing Sodium in Communities

Sponsoring Organization: Centers for Disease Control and Prevention

Amount: \$15,000 (not funded)

Dates: 9/2016

Role: Co-Investigator

Reviewer for Journals

Nutrients	2017-present
Healthcare	2017-present
International Journal of Environmental Research and Public Health	2018-present
Annals of Medicine	2018-present