

W. JAY CHRISTIAN

EDUCATION

University of Kentucky, Lexington, KY
PhD, 2013, Geography

University of Kentucky, Lexington, KY
MPH, 2003, Epidemiology

Washington University, Saint Louis, MO
BA, 1998, Anthropology & Russian Studies

PROFESSIONAL EMPLOYMENT

University of Kentucky, College of Public Health, Lexington, KY, 2015-Present

Assistant Professor, Department of Epidemiology

Currently teach a course in geographic information systems (GIS) for public health and an introductory course in epidemiology for undergraduate students. Research activities include use of GIS for exposure assessment and epidemiologic analysis of respiratory health in southeastern Kentucky, spatio-temporal analysis of cancer incidence and mortality, and use of residential histories for exposure assessment in studies of cancer and environment. Additionally, maintain annual contracts to conduct analysis of Behavioral Risk Factor Surveillance System (BRFSS) for the Foundation for a Healthy Kentucky, and provide GIS and spatial analytic support to the Kentucky Department for Public Health.

University of Kentucky, College of Public Health, Lexington, KY, 2013-2015

Research Assistant Professor, Department of Epidemiology

Taught an introductory course in epidemiology for undergraduates (see Courses, below), and a course in GIS for public health. Research activities included data management, statistical analysis, questionnaire development, manuscript preparation, grant writing, and GIS-based mapping and analysis of cancer-related data. Duties also include annual contract analysis of BRFSS data for the Foundation for a Healthy Kentucky.

University of Kentucky, College of Public Health, Lexington, KY, 2012-2013

Staff epidemiologist, Department of Epidemiology

Co-taught an introductory course in epidemiology for undergraduates (see Courses, below); duties included lecturing and development of problem sets and exams. Research activities included data management, statistical analysis, questionnaire development, manuscript preparation, grant writing, and GIS-based mapping and analysis of cancer-related data.

University of Kentucky, College of Medicine, Markey Cancer Center,

Markey Cancer Control Program, Lexington, KY, 2003-2012

Staff epidemiologist, Kentucky Cancer Registry

Duties included data management, statistical analysis, questionnaire development, manuscript preparation, grant writing, and coordination of lung, cervical, and other cancer research activities; also, preparing maps displaying distribution of cancer-related data, including risk factors, incidence rates, etc., using GIS. Other duties include management and analysis of data gathered from health clinics in Ecuador.

University of Kentucky, College of Public Health,

Kentucky Injury Prevention and Research Center, Lexington, KY, 2000-2003

Project Manager, TBI/SCI Surveillance Project

Responsible for the probabilistic data linkage of trauma registry, hospital discharge, and death certificates data. Duties also included maintenance of databases of traumatic brain injuries (TBI) and spinal cord injuries (SCI), supervision of two employees (hospital data abstractor, research assistant), and preparation and presentation of budgets and final reports.

University of Kentucky, College of Public Health,

Kentucky Injury Prevention and Research Center, Lexington, KY, 1998-2000

Data Linkage Programmer, Crash Outcome Data Evaluation System (CODES) Project

Responsibilities included management of hospital discharge, death certificates, EMS, trauma registry, and automobile crash data, as well as programming probabilistic data linkage of these databases using specialized software.

PEER-REVIEWED PUBLICATIONS

Underlining in this section indicates graduate students who co-authored publications.

- 2021 **Christian WJ**, Flunker J, May B, Westneat S, Sanderson W, Schoenberg N, Browning S. Adult Asthma in Relation to Roadway Density and Public Housing: The Mountain Air Project (MAP) Study Design, Cohort Demographics, and Preliminary Findings. *Environmental Health Perspectives*, Working.
- 2021 Cooper DB, Walker C, **Christian WJ**. Maternal proximity to mountaintop removal mining and birth defects in Appalachian Kentucky, 1997-2003. *PLOS ONE*, Under review.
- 2021 Walker C, Browning S, Levy J, **Christian WJ**. Geocoding precision of birth records from vital statistics in Kentucky, 2008-2017. *Geospatial Health*, Accepted.
- 2021 **Christian WJ**, Valvi N, Walker C. Comparing E-cigarette use in Kentucky, its Appalachian region, and the United States using the Behavioral Risk Factor Surveillance System. *Public Health Reports*, July 2021. DOI: 10.1177/00333549211029972.
- 2021 **Christian WJ**. Exploring COVID-19 case fatality in relation to the prevalence of chronic conditions and health behaviors in Appalachian Kentucky. *Journal of Appalachian Health*, 3(2):43-55. DOI: <https://doi.org/10.13023/jah.0302.05>
- 2021 Mayer K, Carper R, Henson S, Clonce E, **Christian WJ**, Seif S, Pastva A, Needham D, Morris P. Three-Fourths of ICU Physical Therapists Report Use of Assistive Equipment and Technology in Practice. *Journal of Acute Care Physical Therapy*, 12(1): 21-30. DOI: 10.1097/JAT.0000000000000144
- 2020 Walker C, **Christian WJ**. Estimating the population attributable fraction of asthma due to electronic cigarette use and other risk factors using Kentucky Behavioral Risk Factor Survey data, 2016-2017. *Substance Use & Misuse*, 56(3): 353-358. DOI: <https://doi.org/10.1080/10826084.2020.1868002>
- 2020 Durbin EB, **Christian WJ**, Hands I, Koptrya M, Jong JC, Badgett TC. Informatics Methods and Infrastructure Needed to Study Factors Associated with High Incidence of Pediatric Brain and Central Nervous System Tumors in Kentucky. *Journal of Registry Management*, 47(3):127-134.
- 2020 **Christian WJ**, Huang B, Walker C, Durbin E, Levy J, Arnold S. Using residential histories in case-control analysis of lung cancer and mountaintop removal coal mining in Central Appalachia. *Spatial and Spatio-temporal Epidemiology*, 35: 100364. DOI: 10.1016/j.sste.2020.100364

- 2020 Hoover A, Koempel A, **Christian WJ**, Tumlin K, Pennell K, Evans S, McAlister M, Ormsbee L, Brewer D. Appalachian Environmental Health Literacy: Building Knowledge and Skills to Protect Health. *Journal of Appalachian Health*, 2(1): 47-53. PMID: PMC7039621
- 2019 May BA, Cardarelli K, Silver R, **Christian WJ**, Schoenberg NE, Browning SR. Hollows as sampling units for community-based participatory research in Appalachia: the Mountain Air Project. *Progress in Community Health Partnerships: Research, Education, and Action*, 13(4): 401-410. DOI: 10.1353/cpr.2019.0065
- 2019 Yaffee AQ, Scott BD, Cambron J, Chamness JM, **Christian WJ**, Sanderson WT. Collaborative Response to Arsenic Contaminated Soil in an Appalachian Kentucky Neighborhood. *Journal of Toxicology and Environmental Health, Part A*. DOI: 10.1080/15287394.2019.1641872.
- 2019 **Christian WJ**, Vanderford NL, Nee J, Huang B, Durbin EB, Absher KJ, Walker CJ, Arnold SM. Spatio-temporal analysis of lung cancer histological types in Kentucky, 1995-2014. *Cancer Control*, 26:1-8. DOI: 10.1177/1073274819845873.
- 2019 **Christian WJ**, Walker CJ, Huang B, Hahn E. Effect of local smoke-free ordinances on smoking prevalence in Kentucky, 2002-2009. *Southern Medical Journal*, 112(7): 369-375. DOI: 10.14423/SMJ.0000000000001000.
- 2019 Khaleel HA, Brown SV, Fleming S, **Christian WJ**. Alcohol sale status and homicide victimization in Kentucky, 2005-2012: Is there a spatial association? *Geospatial Health*, 14(1):146-152. DOI: 10.4081/gh.2019.747.
- 2019 Unrine J, Slone S, Sanderson W, Johnson N, Durbin E, Shrestha S, Hahn E, Feltner F, Huang B, **Christian WJ**, Mellon I, Orren D, Arnold S. Toenail trace element concentrations are not predictive of lung cancer in residents of Appalachian Kentucky. *PLoS ONE*, 14(2): e0212340.
- 2018 Ringstrom M, **Christian WJ**, Bush ML, Levy JE, Huang B, Gal T. Travel distance: Impact on stage of presentation and treatment choices in head and neck cancer. *American Journal of Otolaryngology—Head and Neck Medicine and Surgery*, 39(5): 575-581.
- 2018 Algarin AB, Ward PJ, **Christian WJ**, Rudolph AE, Holloway IW, Young AM. Spatial distribution of partner-seeking men who have sex with men (MSM) using geosocial networking applications: An epidemiologic study. *Journal of Medical Internet Research*, 20(5): e173.
- 2017 Carreras-Torres R, Johansson M, Haycock PC, ..., **Christian WJ**, et al. Obesity, metabolic factors, and risk of different histological types of lung cancer: A Mendelian randomization study. *PLOS ONE*, 12(6): e0177875.
- 2017 Reilly S, Sanderson WT, **Christian WJ**, Browning SR. Geographical clusters and predictors of rabies in three southeastern states. *Vector-Borne and Zoonotic Diseases*, 17(6): 432-438.
- 2016 Khaleel HA, Brown SV, **Christian WJ**, Fleming S. Alcohol sale status and suicide in Kentucky, 2005-2012. *Alcoholism & Drug Dependence*; 4(3): 240. DOI: 10.4172/2329-6488.1000240.
- 2016 Shannon J, **Christian WJ**. A relational approach for analyzing food access and daily mobility. *GeoJournal*. DOI: 10.1007/s10708-016-9716-0.

- 2015 Abner EL, Jicha GA, **Christian WJ**, Schreurs BG. Rural-urban differences in Alzheimer's Disease and related disorders diagnostic prevalence in Kentucky and West Virginia. *Journal of Rural Health*; 00: 1-7.
- 2015 Bush ML, **Christian WJ**, Bianchi K, Lester C, Schoenberg N. Targeting regional pediatric hearing loss using a spatial scan statistic. *Ear and Hearing*; 36(2): 212-216.
- 2014 Gustafson AA, Putnam N, Adams I, Wu Q, **Christian WJ**. Family meals and neighborhood food resources influence on intake of sugar-sweetened beverages and added sugars among parents and adolescents in rural counties. *J Community Med Health Educ*; 4(4): 300.
- 2014 Hopenhayn C, Christian A, **Christian WJ**, et al. Prevalence of human papillomavirus types in invasive cervical cancers from seven U.S. cancer registries prior to vaccine introduction. *Journal of Lower Genital Tract Disease*; 18(3): 1-8.
- 2013 Jenkins WD, **Christian WJ**, Mueller G, Robbins KT. Population cancer risks associated with coal mining: a systematic review. *PLoS ONE*; 8(8): e71312.
- 2013 Hopenhayn C, **Christian WJ**, Christian A, Studts J, Mullet T. Factors associated with smoking abstinence after diagnosis of early-stage lung cancer. *Lung Cancer*; 80: 55-61.
- 2013 Gustafson A, **Christian WJ**, Lewis S, Moore K, Jilcott S. Food venue choice, consumer food environment, but not food venue availability within daily travel patterns are associated with dietary intake among adults, Lexington Kentucky 2011. *Nutrition Journal*; 12: 17.
- 2012 **Christian WJ**. Using geospatial technologies to explore activity-based retail food environments. *Spatial and Spatio-temporal Epidemiology*; 3(4): 287-295. DOI: 10.1016/j.sste.2012.09.001
- 2011 Johnson N, Shelton BJ, Hopenhayn C Tucker TT, Unrine JM, Huang B, **Christian WJ**, Shi X, Li L. Concentrations of arsenic, chromium, and nickel in toenail samples from Appalachian Kentucky residents. *Journal of Environmental Pathology, Toxicology and Oncology*; 30(3): 213-223.
- 2011 **Christian WJ**, Huang B, Rinehart J, Hopenhayn C. Exploring geographic variation in lung cancer incidence in Kentucky using a spatial scan statistic: Evidence of elevated risk in the Appalachian coal mining region. *Public Health Reports*; 126: 789-796.
- 2010 **Christian WJ**, Hopenhayn C. Early-stage lung cancer survival in Kentucky: Associations with smoking history and Appalachian geography. *Journal of the Kentucky Medical Association*; 108: 97-105.
- 2010 Masterson EA, Hopenhayn C, **Christian WJ**. Self-reported mental health status and recent mammography screening. *Journal of Women's Health*; 19(8): 1569-1576.
- 2010 **Christian WJ**, Hopenhayn C, Koch A, Christian A, McIntosh D. Viral hepatitis and injection drug use in Appalachian Kentucky: a Survey of Rural Health Department Clients. *Public Health Reports*; 125(1): 121-128.
- 2009 **Christian WJ**, Christian A, Hopenhayn C. Acceptance of the HPV vaccine for adolescent girls: analysis of state-added questions from the BRFSS. *Journal of Adolescent Health*, 44(5): 437-445.

- 2008 Hopenhayn C, King JB, Christian A, Huang B, **Christian WJ**. Variability of cervical cancer rates across five Appalachian states. *Cancer*; 113(10): 2974-2980.
- 2007 Hopenhayn C, Tucker T, Christian A, **Christian WJ**. Patterns of cervical cancer risk in Kentucky. *Journal of the Kentucky Medical Association*; 105(5): 205-208.
- 2007 Hopenhayn C, Christian A, **Christian WJ**, Schoenberg NE. Human papillomavirus vaccine: knowledge and attitudes in two Appalachian Kentucky counties. *Cancer Causes Control*; 18(6): 627-634.
- 2007 **Christian WJ**, Hopenhayn C. Rebuttal to “Concentrations of biomarkers in spot urine samples need adjustment for variation in dilution—Comment on: ‘Distribution of urinary selenium and arsenic among pregnant women exposed to arsenic in drinking water’”. *Environmental Research*; 104: 314.
- 2006 Hahn EJ, Rayens MK, Hopenhayn C, **Christian WJ**, Rasnake E. Perceived risk and interest in screening for lung cancer in smokers. *Research in Nursing and Health*; 29(4): 359-370.
- 2006 **Christian WJ**, Hopenhayn C, Centeno J, Todorov T. Distribution of urinary selenium and arsenic among pregnant women exposed to arsenic in drinking water. *Environmental Research*; 100: 115-122.
- 2003 Hopenhayn C, Huang B, **Christian WJ**, Peralta C, Ferreccio C, Atallah R, Kalman D. Profile of urinary arsenic metabolites during pregnancy. *Environmental Health Perspectives*; 111(16): 1888-1891.
- 2003 **Christian WJ**, Carroll M, Meyer K, Vitaz TW, Franklin GA. Motorcycle helmets and head injuries in Kentucky, 1995-2000. *Journal of the Kentucky Medical Association*; 101(1): 21-26.

OTHER PUBLICATIONS

- 2016 Seger RE, Luu H, **Christian WJ**. *Health Disparities in the Commonwealth: A Report on Race and Ethnicity and Health in Kentucky*. Louisville, KY: Foundation for a Healthy Kentucky.
- 2015 Seger RE, **Christian WJ**. *Money Matters: Health Disparities in the Commonwealth, A Report on Socioeconomic Status and Health in Kentucky*. Louisville, KY: Foundation for a Healthy Kentucky.
- 2012 Walsh SE, **Christian WJ**, Hopenhayn C. *Place Matters: Health Disparities in the Commonwealth, A Report on the Delta and Appalachian Regions of Kentucky*. Louisville, KY: Foundation for a Healthy Kentucky.

PRESENTATIONS AT CONFERENCES & MEETINGS

- 2021 **Christian WJ**, Levy J, Pasternak A, Palli S. Developing a tick-borne disease surveillance and mapping system for Kentucky. *Pilot project research presentation / “Lightning Talk” at the Southeast Regional Research Symposium (SERRS) / Southeastern states Occupational Network (SouthON) annual meeting. Online conference, February 17-18.*
- 2020 **Christian WJ**, Walker CJ, Huang B, Levy E, Durbin E. Using residential histories to examine risk for non-Hodgkin’s lymphoma in Kentucky. *Poster accepted for presentation at the American Association of Geographers annual meeting, Denver, CO, April 6-10. CANCELLED DUE TO COVID-19 PANDEMIC*

- 2019 **Christian WJ**, Valvi N, Walker CJ. Electronic cigarette use among adults in Kentucky and the United States: Behavioral Risk Factor Surveillance System, 2016-2017. *Poster accepted for presentation at the American Public Health Association annual meeting, Philadelphia, PA, November 5.*
- 2019 **Christian WJ**, Walker CJ*, Valvi N. Examining long-term changes in cigarette consumption in Kentucky using BRFSS. Oral presentation at the BRFSS Annual Training Workshop, Atlanta, GA, April 11. **Presenting author*
- 2019 **Christian WJ**, Huang B, Walker CJ, Levy JE, Durbin E, Haneberg W, Arnold S. Using commercially available address data to investigate cancer and mountaintop removal coal mining. Oral presentation at the American Association of Geographers annual meeting, Washington, DC, April 6.
- 2018 **Christian WJ**, Vanderford NL, McDowell J, Huang B, Durbin EB, Absher KJ, Walker C, Arnold S. Spatio-temporal analysis of lung cancer histology in relation to smoking, obesity, and rurality in Kentucky, 1995-2014. Poster presentation at the Accelerating Rural Cancer Control meeting, National Cancer Institute, Bethesda, MD, May 30-31.
- 2018 **Christian WJ**, Walker CJ. Disparities in obesity and physical activity by type of built environment. Poster presentation at the annual BRFSS Training Workshop, Atlanta, GA, April 11-13.
- 2018 **Christian WJ**. Geospatial Approaches to Epidemiology—Day 2: Disease Mapping using ArcGIS. Training session presented at the Geospatial Approaches to Epidemiology Short Course, sponsored by Kentucky Geological Survey and Central Appalachian Regional Education & Research Center, University of Kentucky, Lexington, KY, January 4.
- 2017 **Christian WJ**. Health effects associated with coal mining in Appalachian Kentucky. Presentation to the National Academy of Sciences, Committee on Potential Human Health Effects of Surface Coal Mining Operations in Central Appalachia, July 11.
- 2016 **Christian WJ**, Chauhan A, Anthony L, Durbin E, Stewart R, Valentin V, Absher K, Vanderford N, Arnold S. Spatio-temporal analysis of large cell neuroendocrine lung cancer in Kentucky, 1995-2012. Poster presentation at the Geospatial Approaches to Cancer Control and Population Sciences, National Cancer Institute, Bethesda, MD, September 12-14.
- 2016 **Christian WJ**. Activity typicality and eating out in Lexington, KY. Oral presentation at the Association for American Geographers annual meeting, San Francisco, CA, March 28-April 1.
- 2014 **Christian WJ**, Poorthuis A, Zook M. #epidemiology: Ecological analysis of fast food tweets in relation to BRFSS data on diet and weight. Poster presentation at the American Public Health Association annual meeting, New Orleans, LA, November 15-19.
- 2012 **Christian WJ**. Using geospatial technologies to explore activity-based food environments: Considering the duration of GPS tracking. Oral presentation at the American Public Health Association annual meeting, San Francisco, CA, October 27-31.
- 2011 **Christian WJ**. Using geospatial technologies to characterize relationships among travel behavior, food accessibility, and health. Oral presentation at the Association for American Geographers annual meeting, Seattle, WA, April 12-16.

- 2010 **Christian WJ.** Incorporating daily mobility into retail food accessibility research. Poster presentation at the Association for American Geographers annual meeting, Washington, DC, April 14-18.
- 2007 **Christian WJ,** Hopenhayn C, Christian A, Koch A. Geography of viral hepatitis in Kentucky: implications for liver cancer control and prevention. Oral presentation at the Kentucky Public Health Association Conference, Louisville, Kentucky, March 27-29.
- 2005 **Christian WJ,** Hopenhayn C, Bush H, Christian A. Cancer risk factors among smokers in Kentucky. Oral presentation at the Kentucky Public Health Association Conference, Louisville, Kentucky, April 19-21.
- 2004 **Christian WJ,** Hopenhayn C, Centeno J, Todorov T. Is arsenic metabolism in exposed populations influenced by selenium? Poster presentation at the International Society for Environmental Epidemiology's annual conference, New York University, NY, NY, August.

COURSES

- CPH 605—Introduction to Epidemiology—An introduction to the field of epidemiology for graduate students. Spring 2018.
- CPH 660—Geographic Information Systems & Public Health—A graduate-level overview of GIS and spatial analysis for public health, with introduction to ArcGIS. Fall 2014-2018.
- CPH 660—Disease Mapping and Data Visualization—A graduate-level introduction to GIS and disease mapping using open-source QGIS software, with additional instruction in creating effective and appealing epidemiologic tables and graphs, and constructing dashboards in Tableau (Public Edition). Spring 2020-2021.
- CPH 365-003—Experimental undergraduate course in development for Fall 2020. Will use COVID-19 pandemic data to teach students fundamentals of disease mapping and data visualization for public health using free and open-source software (e.g., QGIS, Tableau [Public Edition], Flourish). Fall 2020-2021.
- CPH 310—Disease Detectives: Epidemiology in Action—An introduction to the field of epidemiology for undergraduate students. Fall & Spring 2012-2015, Spring 2019.

SERVICE

Within the University of Kentucky:

- 2016-Present Scientific Advisory Committee, Behavioral & Community-Based Shared Resource Facility, Markey Cancer Center
- 2015-Present Undergraduate Committee, College of Public Health
- 2018 Reviewer, Center for Clinical & Translational Sciences Collaborative Grant program
- 2016 Reviewer, Markey Cancer Center, Cancer Center Support Grant Pilot program

Outside the University of Kentucky:

- 2015-Present GIS, spatial analysis, and data visualization workshops for state and regional epidemiologists in Kentucky

2017 Statistical Analysis of Cancer Risk surrounding Maxey Flat Low-Level Radioactive Waste Facility for Kentucky Department for Public Health
 2016 Statistical Analysis of Potential Cancer Clusters for State Investigation of Montgomery County Arsenic Exposure for Kentucky Department for Public Health

GRANTS AND FUNDING

*ACTIVE (*Asterisk indicates salary coverage not allowed for PI)*

1G08LM013185-01 (PI Hoover) 09/09/2019-05/31/2022 0.10 Calendar
 NLM \$143,613

“Integrating Information Resources to Promote Environmental Health Literacy in Appalachian KY”

Role: Co-I

This study will evaluate existing maps addressing environmental health, conduct needs assessments to identify opportunities to improve these resources, implement these changes, and disseminate revised resources to stakeholders to promote improved environmental health literacy in the region.

5T42OH010278-09 (PI Sanderson) 07/01/2019-06/30/2024 0.03 Calendar
 NIOSH \$1,613,464

“Occupational Safety and Health Education and Research Centers (T42): CARERC”

Role: Co-I

This grant funds the Central Appalachian Regional Education and Research Center, a training center for occupational and environmental health graduate students, as well as a variety of related research projects.

PON2 728 2000002521 (PI Durbin) 07/01/2020-06/30/2022 0.06 Calendar
 Kentucky Cabinet for Health & Family Services (CHFS) \$82,423

“Germline and Environmental Factors Associated with Pediatric Brain Cancer in Kentucky”

Role: Co-I

This project is investigating the high rate of pediatric brain and central nervous system tumors (PBCNST) in Kentucky. Analyses include both population-based spatial statistical analyses of cases and potential environmental hazards, as well as examination of genetic risk factors among Kentucky children.

PON2 728 2000001419 (PI Christian) 07/01/2020-06/30/2022 0.04 Calendar
 Kentucky Cabinet for Health & Family Services (CHFS) \$22,000

Role: PI
 “Environmental Public Health Tracking Network Training”

This project is designed to develop the GIS capabilities of state and regional epidemiologists in Kentucky through regular training and work sessions, as well as to provide ongoing support for spatial analysis of public health issues in Kentucky.

6 NU17CE924971 (MPI Bunn, Quesinberry) 09/01/2019-08/31/2023 0.10 Calendar
 CDC

“Kentucky Overdose Data to Action”

Role: Epidemiologist

This grant funds drug overdose surveillance efforts and numerous public health interventions.

1R01ES032396 (MPI Unrine, Hoover) 11/01/2020-10/31/2025 0.06 Calendar
 NIEHS \$2,632,364

“A university-community partnership to reduce exposure to disinfection byproducts in Appalachia”

Role: Co-I

The goal of this project is to reduce exposure to disinfection byproducts in Appalachia, where aging water systems infrastructure and other factors increase risk of exposure in some communities.

1R01CA251478-01A1 (PI Rose) 11/01/2020-10/31/2025 0.05-0.10 Calendar
NCI \$2,445,607

Role: Co-I

“Local flavor policies to enhance equity in tobacco”

This study will examine changes in exposure to tobacco marketing and use among emerging adults who live in areas that restrict sales of flavored tobacco products.

2021CNTR005 (PI Christian) 05/01/2021-12/31/2021 0.11 Calendar
Foundation for a Healthy Kentucky \$12,000

Role: PI

“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”

This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.

PON2 728 2200000264 (PI Christian) 09/20/2021-06/30/2022 0.07 Calendar
Kentucky Cabinet for Health & Family Services \$10,000

Role: PI

“Data Visualizations and Dashboards: Tableau for Public Health”

This contract funds the development of a two-day training course for state and regional epidemiologists to learn how to use Tableau software for visualizing public health data.

PENDING

“Development of Small Area Interactive Risk Maps for Cancer Control Efforts” (PI Oleson [University of Iowa])

NIH/NCI

U01 (RFA-CA-21-014 “Early-Stage Development of Informatics Technologies for Cancer Research and Management”)

Role: Co-I

This proposed project, led by Dr. Jacob Oleson at the University of Iowa, will use novel statistical methods to produce small area estimates of cancer rates for rural states, and disseminate the results through online interactive informatics. I will act as the lead investigator for the Kentucky site, collaborating with scientists at Iowa and the University of New Mexico.

COMPLETED

3P30CA177558-08S2 07/01/2020-06/30/2021 0.05 Calendar
NCI \$299,813

“CCSG Supplement: Childhood Cancer Data Initiative (CCDI) National Childhood Cancer Registry”

Role: Epidemiologist

This supplement to the UK Markey Cancer Center Support Grant funded UK’s contribution of existing data to a national childhood cancer registry, and to develop a standardized transmission protocol for these data for future contributions from other registries.

Pilot Grant program 10/01/2019-09/30/2020 0.00 Calendar*

SCAHIP/NIOSH \$20,000
“Developing a Tick-Borne Disease Surveillance and Mapping System for Kentucky”

Role: PI

This pilot grant funded tick specimen collection by colleagues in the Department of Entomology and interactive mapping of tick species and pathogens. Results are currently being integrated with existing state-level public health resources for tick-borne disease prevention.

Pilot Grant program 10/01/2019-09/30/2020 0.00 Calendar*
SCAHIP/NIOSH \$12,000

“Developing a Shiny Cluster Identification Tool for Epidemiology”

Role: PI

This pilot grant explored the development of an innovative software interface and environmental data repository for spatial statistical analysis.

Career Development Award 04/01/2019-03/31/2020 0.06 Calendar
CARES/NIEHS \$46,000

“Using commercially available residential histories for exposure assessment in environmental epidemiologic analysis of cancer risk”

Role: PI

This Career Development Award funded two pilot projects investigating the use of LexisNexis data to establish residential histories for long-term exposure assessment in case-control studies of cancer.

2019CNTR005 (PI Christian) 08/01/2019-05/29/2020 0.24 Calendar
Foundation for a Healthy Kentucky \$41,000

Role: PI

“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”

This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.

CARERC Pilot Grant program 01/01/2019-06/30/2019 0.00 Calendar*
CARERC/NIOSH \$16,000

“Case-control Analysis of Birth Outcomes in Relation to Residential Proximity to Mountaintop Removal Mining”

Role: PI

This pilot grant funded an analysis of birth outcomes—specifically birth defects and low birthweight—in relation to maternal residential proximity to mountaintop removal mining sites.

SC 728 1800004192 (PI Christian) 8/15/2018-6/30/2020. 0.04 Calendar
Kentucky Cabinet for Health and Family Services \$22,000

“Environmental Public Health Tracking Training”

Role: PI

This contract funded training in GIS and spatial epidemiology for state and regional epidemiologists in Kentucky.

2018CNTR009 (PI Christian) 01/01/2019-12/31/2019 0.35 Calendar

Foundation for a Healthy Kentucky		\$49,000
Role: PI		
“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”		
This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.		
SCAHIP Pilot Grant program	01/01/2018-09/30/2018	0.00 Calendar*
SCAHIP/NIOSH		\$22,447
“Development of Kentucky Veterinary Diagnostic Lab Data for Epidemiology”		
Role: PI		
This pilot grant explored the use of a veterinary diagnostic lab data for use in public health research of zoonotic diseases, such as leptospirosis.		
2017CNTR004 (PI Christian)	01/01/2017-12/31/2017	0.58 Calendar
Foundation for a Healthy Kentucky		\$54,000
Role: PI		
“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”		
This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.		
PO2 728 1600004735 (PI Christian)	08/15/2016-06/30/2018	0.04 Calendar
Kentucky Cabinet for Health and Family Services		\$22,000
“Environmental Public Health Tracking Training”		
Role: PI		
This contract funded training in GIS and spatial epidemiology for state and regional epidemiologists in Kentucky.		
2016CNTR002 (PI Christian)	01/01/2016-12/31/2016	0.40 Calendar
Foundation for a Healthy Kentucky		\$60,000
Role: PI		
“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”		
This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.		
5R01ES024771 (MPI Browning, Schoenberg)	04/15/2015-01/31/2020	0.10 Calendar
NIEHS		\$1,047,753
Role: Co-I		
“Community-Engaged Research and Action to Reduce Respiratory Disease in Appalachia”		
This community-engaged participatory research project investigated asthma and COPHD among adults in the Central Appalachian region of Kentucky and potentially associated environmental exposures.		
2015PRHP001 (PI Christian)	01/01/2015-12/31/2015	0.40 Calendar

Foundation for a Healthy Kentucky

\$60,000

Role: PI

“County-level Analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data”

This project produces annual data analysis of BRFSS data for small areas in Kentucky, including single- and multi-county groups, health departments and health department districts, and Area Development Districts. Special reports have examined health disparities related to race/ethnicity, socioeconomic status, and geography, in addition to tobacco use trends over time.

UNFUNDED

“Spatio-temporal Analysis of Residential Histories for Understanding Neuroendocrine Neoplasms of the Lung”

NIH/NCI

R01 (PA-17-298: Integration of Individual Residential Histories into Cancer Research)

Submitted October 2019

This proposal was designed to identify environmental and/or contextual risk factors for neuroendocrine tumors of the lung using residential histories and spatial statistical techniques.

“Exploring the Uncertain Geographic Context of Smoking Cessation in Rural Appalachia”

NIH/NCI

R01 (PA-15-010: Spatial Uncertainty: Data, Modeling, and Communication)

Submitted June 2017

This project was designed to examine elements of the tobacco environment—including places to purchase cigarettes and smoke publicly—in relation to success in quitting smoking among a group of participants enrolled in a smoking cessation program.

“Environment and Amyotrophic Lateral Sclerosis (ALS) in Kentucky: a Population-based Case-control Study”

ATSDR

R01 (RFA-TS-15-001)

Submitted June 2015

This proposal described a case-control study of ALS in relation to environmental and occupational factors among Kentuckians.