

Morrison Luke Smith

Minnesota Population Center
University of Minnesota, Twin Cities
Phone: (541) 610-8253; email: smit8045@umn.edu

Education

PhD student, Epidemiology, University of Minnesota, Twin Cities.

Fall 2016 - Present

- School of Public Health, Division of Epidemiology & Community Health
- Thesis question: *Are thunderstorms and pollen associated with serious asthma events in Minnesota*
- Advanced to Candidacy: May 2020
- Expected defense date: Fall 2021
- Advisors: Rich Maclehorse & Jesse Berman
- Minor in Population Studies, and Population Studies Trainee at Minnesota Population Center

Master of Public Health, University of Minnesota, Twin Cities

Fall 2014- Spr. 2016

- School of Public Health, Division of Epidemiology & Community Health
- Thesis title: *Effect of heat waves on the probability of death due to ischemic heart disease in the seven-county metropolitan Minneapolis - St. Paul area, 1998-2014*
- Advisor: Pam Schreiner

Epidemiology Certificate Program, East Tennessee State University Fall 2013

M.A. in Teacher Education, Eastern Oregon University 2002 - 2003

Bachelor of Arts, University of Georgia, Athens 1992 - 1996

- History Major

Additional undergraduate coursework:

- Brenau University, Gainesville, Georgia 1991
 - The University of the South, Sewanee, Tennessee 1987 - 1990
-

Manuscripts

Smith ML, Hardeman RR. Association of Summer Heatwaves and the Probability of Preterm Birth: An exploration of the Intersection of Race and Education. *International Journal of Environmental Research and Public Health*. 2020; 17(17): 6391.

Chi G, Gao J, Wang D, Hagedorn A, Kelgenbaeva K, **Smith ML**, Henebry GM. Agricultural Production at the Oblast Level in Post-Soviet Kyrgyzstan, 1990–2014: Implications of Demographic and Climate Changes. *Research in Globalization*. Accepted for publication.

Lectures and Seminars

Police exposure as a determinant of structural racism: An exploration of the association between preterm birth in neighborhoods with high police exposure. Rachel R. Hardeman, Tongtan Chantarat, **M. Luke Smith**, J'Mag Karbeah, David C. Van Riper, Dara D. Mendez. AcademyHealth Annual Research Meeting. June 2020 (Presented by Tongtan Chantarat).

Background, theory, and practical application of meta-analysis, meta-regression, and publication bias. April 2020 (Graduate course lecture in Advanced Epidemiologic Methods: Applications).

Tools for Effective Data Visualization for Non-Technical Users. March 2019 (Guest lecture for undergraduate class).

Data Visualizations: Plot.ly, Inkscape, and Tableau. Minnesota Population Center. February 2019 (Seminar Presentation).

Effect of Summer Heat Waves on the Probability of Preterm Birth in Minnesota, 1998-2015. **M. Luke Smith**. Population Association of America, May 2018.

Use of Common Online Data Analysis Platform (CODAP) using Minnesota Population Center Data. July 2016 & July 2015. (Day-long seminar for educators across grades, and curriculum areas for summer continuing education).

Posters

Increased Risk of Preterm Birth in Neighborhoods with High Police Exposure in Minneapolis, Minnesota. Rachel R. Hardeman, Tongtan Chantarat, **M. Luke Smith**, J'Mag Karbeah, David C. Van Riper, Dara D. Mendez. Population Association of America. May 2019.

Effect of heat waves on the probability of death due to ischemic heart disease in the seven-county metropolitan Minneapolis - St. Paul area, 1998-2014. **M. Luke Smith**, Matteo Convertino, Pam Schreiner, and Ben Capistrant. Population Association of America. May 2017.

Relevant Tools

- *Statistical languages:* SAS, R, Stata
 - *GIS packages:* ArcGIS, Tableau
 - *Environmental data:* Extracting, merging, and summarizing
 - *MS Office:* Word, Excel, Powerpoint
 - *Basic website development:* Wordpress, iWeb, & HTML
-

Relevant Coursework/Training

Clinical Trials, Epidemiologic Methods I, II, III (6340 series), Biostats 6450 & 6451, Correlated Data Analysis, Advanced Epidemiologic Methods Concepts, Advanced Epi Applications, Synthesis and Application of Methods for Epi Research, Fundamentals of Biostatistical Inference, Spatial Analysis of Infectious Disease, Grant Writing

Employment

Graduate Research Assistant, Minnesota Population Center (June 2014 - Present)

- Minnesota Population Data Base Project – support project working with state agencies to link administrative data, environmental, community characteristics, and health outcomes. Geocoding, linking birth records across generations, literature reviews, statistical analysis.
- Research Assistant at large: Assist with short-term research projects: literature reviews, research extracts, data analysis in Stata and GIS.
- Data harmonization for IPUMS projects, code testing, data quality checks and other work as needed for FDA and HigherEd projects.
- Developing educational projects using TerraPopulus data in an NSF funded project. In collaboration with the Concord Consortium used a novel platform (Common Online Data Analysis Platform) to demonstrate how data can be used by students. Participated in classroom testing.

Teaching Assistant, University of Minnesota

Fundamentals of Social and Behavioral Science

(May-Aug. 2019)

Epidemiology I

(Sept.-Dec. 2015)

- Assist professors with courses for Epidemiology program.
- Grading and office hours.

Internship/Field Experience, Minnesota Department of Health (June-Nov. 2015)

- Geocoded (GIS) wellhead locations for Waterborne Disease Unit surveillance research
- Developed and documented protocol for collection of temperature and precipitation data across sites statewide to support Waterborne Disease Unit

Social Studies Teacher, Summit High School (Aug. 2004 – June 2014)

- Designed and implemented curriculum for 180-200 students per day
- Taught courses ranging from Advanced Placement US Government and Politics to Comparative Religions
- Built educational blogs for information and communication.
- Year-round coaching

Substitute Teacher, Bend-La Pine School District (Dec 2003 – June 2004)

Project Manager, Jerry Fulks Incorporated. Seattle, WA (Jan 1997 – May 2002)

- Created budgets, schedules, contracts, and subcontracts for high-end residential construction projects with budgets up to \$2.5 million.
- Chief point of contact for owner, architect, and subcontractors

Coaching experience

Assistant Nordic Coach, Minneapolis South High School 2017 - 2020

Assistant Ultimate Frisbee Coach, Minneapolis South High 2016 - 2020

Assistant Cross-Country Coach, Summit High School 2004 - 2013

Assistant Nordic Coach, Summit High School 2004 - 2014

Head Ultimate Frisbee Coach, Summit High School 2004 - 2014

- Created team; Grew to over 100 athletes; Multiple state titles

References

Rich Maclehose,
Associate Professor, UMN. Ph: (612) 624-1932. Email: macl0029@umn.edu

Jesse Berman
Assistant Professor, UMN. Ph: (612) 626-0923. Email: berma186@umn.edu

Dave Hacker
Associate Professor, UMN. Ph (612) 624 – 9043. Email: hacke010@umn.edu

Katie Genadek,
Faculty Associate, CU. Ph (303) 492-8147. Email: katie.genadek@colorado.edu