

Kaelen L. Medeiros

(517) 648-9025

kaelenmedeiros@gmail.com

Education

Louisiana State University Health Sciences Center

Master of Science in Biostatistics

August 2014 – May 2016

Advisor: Dr. Qingzhao Yu

Thesis title: General multiple mediation analysis to examine ethnic differences in anxiety and depression in cancer survivors using the MY-Health survey

Eastern Michigan University

Post Baccalaureate education in Math & Biology

September 2012 – June 2014

University of Michigan

Bachelor of Arts in Screen Arts and Cultures & Women's Studies

September 2007 - December 2011

Experience

American College of Surgeons

Statistician

June 2016 – present

- Conducts risk-adjusted hierarchical modeling with coded hospital data to carry out surgical program risk assessment for MBSAQIP (bariatric surgery) and TransQIP (transplant surgery) data.
- Cleans datasets for public release for research, including removing all protected health information, checking logic, and flagging errors.
- Advises on best practices for statistical design and analysis of studies, including an integral role in the launch of a nationwide Enhanced Recovery in Bariatric Surgery project, with expertise on survey design, survey scoring, and data collection methods.
- Consults on UX design of front-end data collection tools.

Louisiana Tumor Registry

Student Biostatistician & Researcher

January 2015 – June 2016

- Designed and conducted statistical analyses and data modeling efforts for research projects focusing on cancer diagnosis and treatment trends using National Cancer Database (NCDB) data from the American College of Surgeons (ACS), focused on breast and pancreatic colorectal cancers.
- Responsible for extensive research and revision of the cancer Facts & Figures program booklets in order for distribution for a more general audience, running cancer statistics as necessary with Survival, Epidemiology and End Results (SEER) data.
- Performed general data analyst tasks and quality control for data on projects as assigned.

National Network of Public Health Institutes (NNPHI)

Contract Data Abstractor

May 2015 - August 2015

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- Worked on a team with 4 other abstractors, program manager, and director of research to abstract data, including pre-screen questions, study design, participant characteristics, study quality, and outcome information for a worksite physical activity intervention study for a CDC contract.
- Personally abstracted 52 articles, included with the team's 200+ articles abstracted by the conclusion of the project.
- Conducted quality control on abstractions based on notes from both program manager and CDC team.

Louisiana Cancer Prevention and Control Programs (LCP)

Student Worker

September 2014 – August 2015

- Ran analytics on social media reach and adjusted public health marketing strategies accordingly.
- Ran social media sites for LCP and SurviveDat, including assisting in new content creation.
- Scheduled outreach events and updated calendars and websites to reflect any changes.

Casper Lab, Eastern Michigan University

"Labbie" (Lab Assistant)

September 2013 – July 2014

- Assisted Dr. Anne Casper in genetics research in the lab, working primarily with another student on cancer-focused research in a yeast model system, with a focus on Loss of Heterozygosity (LOH) model and its effect on tumorigenesis.
- Regularly updated both a lab notebook with complete details of project and also a database on Google Drive of all results attained.
- Gained experience with pipetting, mixing solutions, PCR, gel electrophoresis, and other basic genetics lab techniques.

Research Interests

- Statistical Applications in Cancer Surveillance
- Mediation Analysis
- Propensity Score Analysis methods, including matching with 2+ groups and inverse probability of treatment weighting (IPTW) with 2+ groups
- Survival Analysis
- Survey Methods and Item Response Theory

Publications and Manuscripts

Chu, Q.D., Zhou, M., **Medeiros, K.L.**, Wu, X.C, Peddi, P. "Positive Surgical margins Contribute to the Survival Paradox between Patients with Stage IIB/C (T4N0) and Stage IIIA (T1-2N1, T1N2a) Colon Cancer." Forthcoming publication in *Surgery*.

Chu, Q.D., Zhou, M., **Medeiros, K.L.**, Peddi, P., Kavanaugh, M. ., Wu, X.C. "Poor survival in stage IIB/C (T4N0) compared to stage IIIA (T1-2 N1, T1N2a) colon cancer persists even after adjusting for adequate lymph nodes retrieved and receipt of adjuvant chemotherapy." Forthcoming publication in *BMC Cancer*.

Posters and Scholarly Presentations

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Medeiros, K.L., Zhou, M., Peddi, P., Wu, X.C., Chu, Q.D. "Can Radiation Therapy Adequately Address Positive Surgical Margins in elderly Women (≥ 70 years) with Stage I, ER+ Breast Cancer?" Poster, American Society of Clinical Oncologists (ASCO) Annual Meeting, June 2016.

Medeiros, K.L. "General multiple mediation analysis to examine ethnic differences in anxiety and depression in cancer survivors using the MY-Health survey." Presentation, American Statistical Association-Louisiana Chapter Spring Meeting, May 2016.

Medeiros, K.L., Zhou, M., Peddi, P., Wu, X.C., Chu, Q.D. "Can Radiation Therapy Adequately Address Positive Surgical Margins in elderly Women (≥ 70 years) with Stage I, ER+ Breast Cancer?" Presentation, Louisiana American College of Surgeons (LA-ACS) Annual Meeting, January 2016.

Chu, Q.D., **Medeiros, K.L.**, Zhou, M., Peddi, P., Zibari, G.B., Shokou-Amiri, H., Wu, X.C. "Effect of Facility Type on Outcome Following Pancreatectomy for Pancreatic Adenocarcinoma: Analysis of the National Cancer Data Base." Presentation, Louisiana American College of Surgeons (LA-ACS) Annual Meeting, January 2016.

Medeiros, K.L., Zhou, M., Peddi, P., Wu, X.C., Chu, Q.D. "Can Radiation Therapy Adequately Address Positive Surgical Margins in elderly Women (≥ 70 years) with Stage I, ER+ Breast Cancer?" Poster, Louisiana State University Health Sciences Center Graduate Research Day, November 2015.

Ricks, L., **Medeiros, K.L.**, Williams, D.L. "Why Tobacco Smoke Sucks: Content Analysis and Insights from a Last-Minute Social Media Campaign." Poster, American Public Health Association annual conference, November 2015.

Coates, T., **Medeiros, K.L.**, Casper, A. "Gene Conversion at Fragile Site Breaks in *Saccharomyces cerevisiae*." Poster, Eastern Michigan University Undergraduate Research Symposium, June 2014.

Honors and Awards

1st place, Louisiana American College of Surgeons (LA-ACS) Cancer Competition, 2016, for "Can Radiation Therapy Adequately Address Positive Surgical Margins in elderly Women (≥ 70 years) with Stage I, ER+ Breast Cancer?" **Medeiros, K.L.**, Zhou, M., Peddi, P., Wu, X.C., Chu, Q.D.

2nd place, Louisiana American College of Surgeons (LA-ACS) Cancer Competition, 2016, for "Inadequate Lymph Nodes Retrieved, Lack of Receipt of Adjuvant Chemotherapy, and Socioeconomic Factors Contribute to the Poor Survival in Stage IIB/C (T4N0) Compared to Stage IIIA (T1-2N1, T1N2A) Colon Cancer." Chu, Q.D., Zhou, M., **Medeiros, K.L.**, Peddi, P., Kavanaugh, M., Wu, X.C.

Activities and Committee Membership

- Abstract reviewer, APHA 2016 conference for Statistics in Epidemiology and Student sections.
- Research Committee member, Louisiana State University Health Sciences Center School of Public Health, October 2015 – May 2016
- IT Committee member, Louisiana State University Health Sciences Center School of Public Health, August 2015 – May 2016
- Grievance Committee member, Louisiana State University Health Sciences Center School of Public Health, August 2014 – May 2016

Professional Memberships

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- American Statistical Association (ASA), November 2014 – present, Member of Statistics in Epidemiology section
- American Public Health Association (APHA), November 2014 – November 2016, Member of Applied Public Health Statistics, Health Informatics Information Technology, and Statistics in Epidemiology Sections

Skills

- Extensive experience in SAS programming environment, including IML and proficiency with SAS macros.
- Extensive experience in R, including data management and use of packages to analyze data.
- Proficient in SQL for use of retrieving data from relational databases.
- Proficient in Python for use of writing basic web apps and for most data analysis purposes.
- Proficient in LaTeX programming environment for document and presentation creation.
- Experience using SEERStat and SEER*DMS software for SEER tumor registry data.
- Fully functional in all Microsoft Office suite programs.