

SARAH ANTER EL-AZAB

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Education

- 2020-present **University of Michigan**, Ann Arbor, Michigan
PhD Candidate, Health Services Organization and Policy
Cognate: Sociology/Organizational Studies
Dissertation: “A Critical Analysis of Organizational Practices Underlying Interoperability of Race and Ethnicity Data”
Committee: Denise Anthony (Chair), Melissa Creary, Dori Cross, Tiffany Veinot
- 2015-2017 **Purdue University**, West Lafayette, Indiana
MS, Health Communication
Minor: Research Methods
- 2011-2015 **University of Florida**, Gainesville, Florida
BS, Microbiology and Cell Science
Minor: Chemistry, Arabic

Employment

- 2019-2020 **Data Analyst II**, Research Data Services – Data Core
Regenstrief Institute, Indianapolis, Indiana
- 2017-2019 **Data Analyst I**, Research Data Services – Data Core
Regenstrief Institute, Indianapolis, Indiana

Peer-Reviewed Publications

- El-Azab S**, Nong P. “Clinical Algorithms, Racism, and ‘Fairness’: A Case of Bounded Justice.” *Big Data & Society*. 2023.
- Lambert N, Survivor Corps, **El-Azab S**, et al. “The Other COVID-19 Survivors: Timing, Duration, and Health Impact of Post-Acute Sequelae of SARS-CoV-2 (PASC) Infection.” *Journal of Clinical Nursing*. 2022.
- Downs C, Pinto M, Huang Y, **El-Azab S**, et al. “A Distinct Symptom Pattern Emerges for COVID-19 Long-Haul: A Nationwide Study.” *Scientific Reports*. 2022.
- Grout R, Hui SL, Imler TL, **El-Azab S**, et al. “Development, validation, and proof-of-concept implementation of a two-year risk prediction model for undiagnosed atrial fibrillation using common electronic health data (UNAFIED).” *BMC Medical Informatics and Decision Making*. 2021.
- Moorthi R, Liu Z, **El-Azab S**, et al. “Sarcopenia, frailty and cachexia patients detected in a multisystem electronic health record database.” *BMC Musculoskeletal Disorders*. 2020.
- DeLacey S, Liu Z, Broyles A, **El-Azab S**, et al. “Hyperparathyroidism and parathyroidectomy in X-linked hypophosphatemia patients.” *Bone*. 2019.

Other Publications

- Nong P, **El-Azab S**. “Hypervisibility, surveillance, and bounded justice through data-driven health equity efforts.” *The American Journal of Bioethics*. 2023. (Article Commentary)

Ballinger T, Liu Z, **El-Azab S**, et al. "Influence of Breast Cancer and Metastases on Incidence of Diabetes." *IUPUI ScholarWorks*. 2021. (Preprint)

Lambert NJ, Survivor Corps, **El-Azab S**, et al. "Fever Scans Offer False Sense of Security for Stopping the Spread Of COVID-19." *Indiana University School of Medicine*. 2020. (White Paper)

Works in Progress

Inderstrodt J, Strumff J, Smollen R, Sridhar S, **El-Azab S**, et al. "Informatics Interventions for Material Morbidity: A Scoping Review."

El-Azab S, Jahagirdar D, Bruno C, Anthony D. "Use of Race and Ethnicity in AI/ML-Based Clinical Predictive Algorithms: A Scoping Review."

Whiteus T, **El-Azab S**, Hogikyan M, et al. "Demographic Data Collection Practices in Emergency Departments."

El-Azab S, Allen K, Blackburn J, et al. "Agreement of Race and Ethnicity Data in Health Information Exchange, Medicaid, and Electronic Health Record Data Sets."

Allen K, **El-Azab S**, Blackburn J. "Comparing Inpatient and Emergency Encounters in Health Information Exchange and Administrative Data Sets."

Conference Presentations

◇=first author or lead presenter

"Advancing Diversity, Equity, and Inclusion in Biomedical Informatics Research: Strategies and Best Practices for Using Inclusive Language Across the Research Lifecycle" (Panelist)
American Medical Informatics Association Annual Symposium. New Orleans, Louisiana. November 2023.

"Understanding Sociodemographic Data Collection Workflows in Emergency Department Settings: A Qualitative Study" (Poster) ◇
American Medical Informatics Association Annual Symposium. New Orleans, Louisiana. November 2023.

"Racism and Disparities: Data, Measurement, and Models" (Discussant)
AcademyHealth Annual Research Meeting. Seattle, Washington. June 2023.

"Informatics Interventions for Maternal Morbidity: A Scoping Review" (Poster)
National Library of Medicine T15 Training Conference. Palo Alto, California. June 2023.

"Variation in the Collection of Race and Ethnicity Data Across Four Health Data Sets: Implications for Sociotechnical Infrastructure and Health Equity" (Presentation) ◇
Achieving Health Equity in a World of Data Conference. John's Hopkins University. October 2022.

"Variation in Collection of Demographic Data within a Statewide Emergency Department Quality Network: Implications for Measuring and Improving Care Disparities" (Poster) ◇
AcademyHealth Annual Research Meeting. Washington D.C. June 2022.

"Race and Ethnicity Agreement Between Medicaid, Health Information Exchange, and Electronic Health Records" (Poster) ◇
American Medical Informatics Association Annual Symposium. San Diego, California. November 2021.
Robert Wood Johnson Foundation Change Leaders Program Fall Virtual Convening. December 2021.

“Best Practices for Demographic Data Collection in Electronic Health Records.” (Presentation) ◇
MEDIC Collaborative-Wide Meeting. Ann Arbor, Michigan. October 2021.

“Creating a Standardized Approach for Extracting Race and Ethnicity from a Regional Health Information Exchange” (Poster) ◇
American Medical Informatics Association Virtual Annual Symposium. November 2020.

“How do you monitor a health information exchange?” (Presentation) ◇
American Medical Informatics Association Informatics Summit. Houston, Texas. March 2020.
 **Canceled due to COVID-19

“High prevalence and incidence of new onset diabetes in metastatic breast cancer” (Poster)
San Antonio Breast Cancer Symposium. San Antonio, Texas. December 2019

“Prevalence of Hyperparathyroidism in X-Linked Hypophosphatemia” (Poster)
ENDO 2019. New Orleans, Louisiana. March 2019.

“Assessing Clinician Implicit Biases in Opioid Abuse Encounters: A Use Case for Sentiment Analysis of Clinical Text” (Poster) ◇
American Medical Informatics Association Informatics Summit. San Francisco, California. March 2019.

“Examining a Network of Mental Health Care: Implications for Improving Care” (Poster) ◇
National Communication Association Convention. Dallas, Texas. November 2017

“Don’t be bamboozled.’ – Assessing Second-Level Agenda Setting Effects on Political Support of Obamacare and the Affordable Care Act on Twitter.” (Presentation) ◇
Midwest Popular Culture Association, St. Louis, Missouri. October 2017

“Arab American Privacy Rule Criteria for the Disclosure of Mental Illness” (Poster) ◇
D.C. Health Communication Conference, Washington D.C. April 2017

“Digitally Moving the Elephant in the Room: A Call to Create Connections between Communication Privacy Management, Social Media, and Experiences of Loss” (Panelist)
Central States Communication Association Convention, Minneapolis, Minnesota. March 2017

“Social Trust and the Flint Water Crisis: Using the Salient Value Similarity Model of Trust to Increase the Effectiveness of Risk Communication” (Presentation) ◇
National Communication Association Convention, Philadelphia, Pennsylvania. November 2016

“Social Trust and the Flint, Michigan Water Crisis: A Thematic Analysis of User Generated Comments on MLive's Online News Coverage of the Crisis” (Presentation) ◇
Midwest Popular Culture Association, Chicago, Illinois. October 2016

“It Takes a Village: Advocating Together for Comprehensive Sexual Health Education” (Poster) ◇
Indiana Public Health Conference, Indianapolis, Indiana. September 2016

“Examining Arab American Attitudes towards Mental Health” (Presentation) ◇
Communication Graduate Student Association Conference, Purdue University. January 2016

“Great Idea for Teaching Students: Addressing Speech Anxiety” (Presentation) ◇
Communication Graduate Student Association Conference, Purdue University. January 2016

“Silver Labeling: A Novel Technique for Understanding the Neural Control of Respiration” (Poster) ◇
Undergraduate Research Symposium, University of Florida. March 2015

“Staccato” (Art Installation) ◇

Creativity in the Arts and Sciences Symposium, University of Florida. February 2015

“Spinal Cord Injury and Breathing: Revealing the Circuitry of Respiratory Control” (Poster) ◇

Creativity in the Arts and Sciences Symposium, University of Florida. February 2014

Funding & Scholarships

2023-2024	Health Policy Research Scholars Dissertation Award (\$10,000) Robert Wood Johnson Foundation
2021-2025	Health Policy Research Scholars (\$30,000/year) Robert Wood Johnson Foundation
2021	Health Equity Summer Research Award (\$4,500) Institute of Healthcare Policy and Innovation, University of Michigan
2020-2022	AHRQ NRSA T32 Pre-Doctoral Traineeship (\$25,000/year) Department of Health Management and Policy, University of Michigan

Research & Data Management Experience

2023-present	Embedded Researcher , Michigan Emergency Department Improvement Collaborative (MEDIC) <i>Topic</i> : Semantic interoperability of race and ethnicity data
2022-present	Research Affiliate , Regenstrief Institute <i>Topics</i> : Health information exchange, race and ethnicity, data quality
2021	Research Intern , Michigan Emergency Department Improvement Collaborative (MEDIC) <i>Principle Investigator</i> : Keith Kocher <i>Topic</i> : Demographic data collection in emergency department settings
2020-2022	Research Assistant , School of Medicine, Indiana University <i>Principle Investigator</i> : Dr. Natalie Lambert <i>Topic</i> : Long COVID
2019-2020	Lead Data Analyst , Regenstrief-McKinsey-Pfizer Collaboration, Regenstrief Institute <i>Principle Investigator</i> : Dr. Timothy Imler <i>Topic</i> : Development of a clinical prediction model for atrial fibrillation
2018-2020	Lead Data Analyst , Data Monitoring Strategic Initiative, Regenstrief Institute <i>Topics</i> : Health information exchange, data quality, query standardization
2018-2019	Lead Data Analyst , Great Lakes Practice Transformation Network, Regenstrief Institute <i>Topic</i> : Patient patterns of health care utilization.
2018-2020	Data Analyst , P30 Core Center for Clinical Research, IU Health & Regenstrief Institute <i>Principle Investigators</i> : Dr. Erik Imel, Dr. Ranjani Moorthi, Dr. Tarah Ballinger, Dr. Theresa Guise, Dr. Erin Crowley <i>Topics</i> : Musculoskeletal disorders, phenotype development

- 2018-2020 **Data Analyst**, Precision Health Initiative, IU Health & Regenstrief Institute
Topics: Multiple myeloma, diabetes, triple negative breast cancer, and pediatric sarcomas.
- 2017 **Research Assistant**, Lamb School of Communication, Purdue University
Principle Investigators: Dr. Natalie Lambert, Dr. Evan Perrault
Topic: Breast cancer narratives in online spaces.
- 2016-2017 **Research Assistant**, Department of Consumer Science and Retail, Purdue University
Principal Investigator: Dr. Lalatendu Acharya
Topic: Lived experiences of food insecurity.
- 2015 **Data Collection Assistant**, Lamb School of Communication, Purdue University
Principle Investigators: Dr. Patrice Buzzanell, Dr. Steven Wilson
Topic: Application for America's Best Communities Grant for Lafayette, Indiana.
- 2012-2015 **Research Assistant**, Department of Physiological Sciences, University of Florida
Principle Investigator: Dr. David Baekey
Topic: Spinal cord injury and respiration.

Teaching

- Fall 2023 **HMP 600 – The Health Services System I**
 University of Michigan, Department of Health Management and Policy
Role: Graduate Student Instructor
- Winter 2023 **HMP 669 – Data Management and Visualization in Healthcare**
 University of Michigan, Department of Health Management and Policy
Role: Graduate Student Instructor
- 2016-2017 **Communication Laboratory and COM 114 Help Center**
 Lamb School of Communication, Purdue University
Role: Communication Laboratory Attendant
- 2015-2017 **COM 114 – Fundamentals of Speech Communication**
 Lamb School of Communication, Purdue University
Role: Instructor of Record
- 2014-2015 **Leading for Social Change: Foundations of Alternative Breaks**
 Center for Leadership and Service, University of Florida
Role: Site Leader Trainer, Instructor of Record
- Spring 2013 **MCB 3023L – Principles of Microbiology Laboratory**
 Department of Microbiology and Cell Science, University of Florida
Role: Teaching Assistant

Invited Talks & Guest Lectures

- 2023 “Healthcare Algorithms – Designing for Justice”
 Equity & Design Seminar (Undergraduate Course)
 The Hive, The Claremont Colleges
- 2023 “Algorithmic Justice in Healthcare”
 * Population Health Determinants and Disparities (Undergraduate Course)
 * The Health Services System I (Graduate Course)

School of Public Health, University of Michigan

- 2019 “Understanding the Use of Health Data in Teaching and Research.”
BioHealth Informatics Colloquium (Graduate Seminar)
Department of BioHealth Informatics, IUPUI
- 2018 “RI Data Core: Harnessing Big Health Data to Improve Patient Care.”
Computational Research Methods (Graduate Seminar)
Lamb School of Communication, Purdue University

Peer Review Experience

- 2022-present AcademyHealth Annual Research Meeting – Abstract Reviewer
- 2019-present American Medical Informatics Association (Annual Symposium, Informatics Summit, & Clinical Informatics Conference) – Abstract Reviewer
- 2017 Central States Communication Association – Abstract Reviewer
- 2016-2017 Communication Graduate Student Association – Abstract Reviewer

Certifications & Training

- 2024-present **The Data and AI Intensive Research with Rigor and Reproducibility (DAIR3) Program**, Michigan Institute for Data Science, University of Michigan
- 2023-present **Graduate Teacher Certificate Program**, Center for Research on Teaching & Learning, University of Michigan (In Progress)
- 2021-2023 **Diversity, Equity, and Inclusion Certificate Program**, Rackham Graduate School, University of Michigan (Received)

Leadership & Service

- 2023-2024 **Departmental Steward**, Graduate Employee's Organization
AFT Michigan 3550, AFL-CIO
- 2022-2023 **Student Representative**, Management Faculty Search Committee
Department of Health Management and Policy, University of Michigan
- 2022-2023 **Student Representative**, Health Services Organization and Policy Committee
Department of Health Management and Policy, University of Michigan
- 2021-2022 **Doctoral Student Representative**, Diversity, Equity, and Inclusion Committee
Department of Health Management and Policy, University of Michigan
- 2019-2020 **English Tutor**, Exodus Refugee
Indianapolis, Indiana
- 2016-2017 **Vice President of Administration**, Communication Graduate Student Association
Brian Lamb School of Communication, Purdue University
- 2014-2015 **Clinic Volunteer**, RAHMA Mercy Clinic
Gainesville, Florida
- 2014-2015 **Site Leader**, Florida Alternative Breaks

Center for Leadership and Service, University of Florida

- 2014-2015 **Director**, Health Disparities in Medicine Committee
Premed American Medical Student Association, University of Florida
- 2014 **Mentor**, Intercultural Certificate Program
Multicultural & Diversity Affairs, University of Florida
- 2014 **Mentor**, P3 Mentoring Program
Academic Advising Center, University of Florida
- 2013-2014 **Volunteer**, Footprints Buddy and Support Program
Department of Hematology and Oncology, University of Florida Health
- 2012-2014 **Director**, Women in Medicine Committee
Premed American Medical Student Association, University of Florida

Awards & Honors

- 2021 Robert Wood Johnson Foundation Health Policy Research Scholars
- 2017 Learning Community Academic Connection Award
- 2017 College of Liberal Arts PROMISE Award
- 2017 Lamb School of Communication Service Award
- 2016 Communication Graduate Student Association Travel Grant
- 2015 UF College of Liberal Arts and Sciences Outstanding Service Award
- 2015 Phi Beta Kappa
- 2014-15 Presidential Service Award
- 2014 Reitz Scholar
- 2014 University Scholars Program
- 2014 Florida Alternative Breaks Site Leader Pair of the Year
- 2013 Howard Hughes Medical Institute Intramural Undergraduate Research Award