

CURRICULUM VITAE

Charisse Madlock-Brown, PhD

Associate Professor

College of Nursing,
The University of Iowa
Iowa City, Iowa 52242
cmadlock@uiowa.edu

August 31st, 2023

EDUCATION

2008 – 2014	University of Iowa	PhD, Health Informatics Iowa City, IA
2006 – 2008	University of Iowa	MA, Library and Information Science Iowa City, IA
1998 – 2002	Bard College at Simon's Rock	BA, Inter-Cultural Studies Great Barrington, MA

PhD Dissertation

A framework for emerging topic detection in biomedicine. University of Iowa, 2014 (advisor: David Eichmann).

PROFESSIONAL EXPERIENCE

2023 – Present	Associate Professor	College of Nursing, University of Iowa, Iowa City, IA
2021 – 2023	Associate Professor	Department of Health Informatics and Information Management, University of Tennessee Health Science Center, Memphis, TN
2020 – 2023	Co-Director	Informatics Core, Tennessee Clinical and Translational Science Institute, University of Tennessee Health Science Center
2019 – Present	Faculty	College of Graduate Health Sciences, University of Tennessee Health Science Center
2018 – Present	Affiliated Faculty	Center for Health Systems Improvement (CHSI), University of Tennessee Health Science Center.
2015 – 2020	Assistant Professor	Department of Health Informatics and Information Management, University of Tennessee Health Science Center, Memphis, TN

HONORS AND AWARDS

2023	University of Iowa College of Nursing Distinguished Scholar in Nursing Award
2022	Federation of American Societies for Experimental Biology Member of DataWorks! Grand Prize-winning team
2022	Tennessee Health Information Management Association Rising Star Award
2019	Alpha Eta Honor Society of Health Professions Membership
2007	Beta Beta Theta Chapter of Beta Phi Mu, International Library and Information Science Honor Society Membership

SCHOLARSHIP

Publications

*Published Peer Reviewed Papers (*data-based, underline student trainees, **co-first author)*

1. *Alshakhs, M., Goedecke, P., Bailey, JE, **Madlock-Brown, C.** (2023). Racial Differences in Healthcare Expenditures for Prevalent Multimorbidity Combinations in the U.S.: A Cross-sectional Study. *BMC Medicine*, 21(399).
2. *Hill, E., Mehta, H., Sharma, S., Mane, K., Xie, C., Cathey, E., Loomba, J., Russell, S., pratt, H., DeWitt, P., Ammar, N., **Madlock-Brown, C.**, Brown, D., McMurry, J., Chute, C., Haendel, M., Moffitt, R., Pfaff, E., Bennett, T. (2023). Risk Factors Associated with Post-Acute Sequelae of SARS-CoV-2 in an EHR Cohort: A National COVID Cohort Collaborative (N3C) Analysis as part of the NIH RECOVER program. *BMC Public Health*. *In Press*
3. *Pfaff, E., **Madlock-Brown, C. R****, Baratta, J. M., Bhatia, A., Davis, H., Girvin, A., Hill, E., Kelly, L., Kostka, K., Loomba, J., McMurry, J., Wong, R., Bennet, T., Moffitt, R., Chute, C., Haendel, M., The N3C Consortium, The RECOVER Consortium (2023). Coding Long COVID: Characterizing a new disease through an ICD-10 lens. *BMC Medicine*, 21(1).
4. *Reese, J. T., Blau, H., Casiraghi, E., Bergquist, T., Loomba, J. J., Callahan, T. J., Laraway, B., Antonescu, C., Coleman, B., Gargano, M., Wilkins, K. J., Cappelletti, L., Fontana, T., Ammar, N., Antony, B., Murali, T. M., Caufield, J. H., Karlebach, G., McMurry, J. A., Divers, J. ... **Madlock-Brown, C.**, Haendel, M., Robinson, P. (2023). Generalisable long COVID subtypes: findings from the NIH N3C and RECOVER programmes. *eBioMedicine* 87.
5. Phuong, J., Hong, S., Palchuk, M., Espinoza, J., Meeker, D., Dorr, D., Lozinski, G., **Madlock-Brown, C. R.**, Adams, W. Advancing Interoperability of Patient-level Social Determinants of Health Data to Support COVID-19 Research (2022). *AMIA Informatics Summit Proceedings. AMIA Annual Symposium Proceedings*, 396.
6. *Cook, L., Espinoza, J., Weiskopf, N., Mathews, N., Dorr, D., Gonzales, K., Wilcox, A., **Madlock-Brown, C.** (2022). Issues with Variability in EHR Data About Race and Ethnicity: A Descriptive Analysis of the National COVID Cohort Collaborative Data Enclave. *JMIR Medical Informatics*, 10:e39235.
7. *Alshakhs, M., Jackson, B., Ikponmwosa, D., Reynolds, R., **Madlock-Brown, C.** (2022). Multimorbidity patterns across race/ethnicity as stratified by age and obesity. *Scientific Reports*, 12(1).
8. ***Madlock-Brown, C.**, Wilkens, K., Weiskopf, N., Cesare, N., Bhattacharyya, S., Riches, N. O., Espinoza, J., Dorr, D., Goetz, K., & Phuong, J., Sule, A., Kharrazi, H., Liu, F., Lemon, C., Adams, W. (2022). Clinical, social, and policy factors in COVID-19 cases and deaths: Methodological

- considerations for feature selection and modeling in county-level analyses. *BMC Public Health*, 22(1), 1–13.
9. *Xu, N. Y., Nguyen, K. T., DuBord, A. Y., Klonoff, D. C., Goldman, J. M., Shah, S. N., Spanakis, E. K., **Madlock-Brown, C.**, Sarlati, S., & Rafiq, A. (2022). The Launch of the iCoDE Standard Project. *Journal of Diabetes Science and Technology*, 19322968221093664.
 10. *Phuong, J., Riches, N. O., **Madlock-Brown, C.**, Duran, D., Calzoni, L., Espinoza, J. C., Datta, G., Kavuluru, R., Weiskopf, N. G., & Ward-Caviness, C. K. (2022). Social Determinants of Health Factors for Gene–Environment COVID-19 Research: Challenges and Opportunities. *Advanced Genetics*, 2100056.
 11. *Phuong, J., Zampino, E., Dobbins, N., Espinoza, J., Meeker, D., Spratt, H., **Madlock-Brown, C. R.**, Weiskopf, N. (2021). Extracting Patient-level Social Determinants of Health into the OMOP Common Data Model. *AMIA Symposium Annual Proceedings*, 989.
 12. *Finocchio, T., Surbhi, S., & **Madlock, C.** (2021). Time to Development of Overt Diabetes and Macrovascular and Microvascular Complications Among Patients with Prediabetes: A Retrospective Cohort Study. *Cureus*, 13(12).
 13. *Deer, R., Rock, M., Vasilevsky, N., Carmody, L., Rando, H., Anzalone, A., Basson, M., Bennet, T., Bergquist, T., Boudreau, E., Bramante, C., Byrd, J., Callahan, T., Chan, L., Chu, H., Chute, C., Coleman, B., Davis, H., Gagnier, J., Greene, C., Hillegass, W., Kavuluru, R., Kimble, W., Koraishy, F., Kohler, S., Liang, C., Liu, F., Liu, H., Madhira, V., **Madlock-Brown, C. R.**, Matentzoglou, N., Mazzotti, D., McMurry, J., McNair, D., Moffitt, R., Monteith, T., Parker, A., Perry, M., Pfaff, E., Reese, J., Saltz, J., Schuff, R., Solomonides, A., Solway, J., Spratt, H., Stein, G., Sule, A., Topaloglu, U., Vavougiou, G., Wang, L., Haendel, M., Robinson, P. (2021). Characterizing Long COVID: Deep Phenotype of a Complex Condition. *EBioMedicine*, 74, 103722.
 14. ***Madlock-Brown, C. R.**, Sharp, M. Y., & Reynolds, R. B. (2021). Assessing the Prevalence of Ahima-Identified Health Informatics and Information Management Careers and Related Skills: A Cross-Sectional Study. *Perspectives in Health Information Management*, 18(Spring).
 15. ***Madlock-Brown, C. R.**, Reynolds, R. B., & Bailey, J. E. (2021). Increases in multimorbidity with weight class in the United States. *Clinical Obesity*, 11(3), e12436.
 16. *McCormack, L. A., & **Madlock-Brown, C.** (2020). Social Determinant of Health Documentation Trends and Their Association with Emergency Department Admissions. *AMIA Annual Symposium Proceedings*, 823.
 17. ***Madlock-Brown, C.** and Reynolds, R. (2019). Identifying obesity-related multimorbidity combinations in the United States.” *Clinical Obesity*, 9(6).
 18. *Darby, A. B., Su, Y., Reynolds, R. B., & **Madlock-Brown, C.** (2019). A survey-based study of pharmacist acceptance and resistance to health information technology. *Perspectives in Health Information Management*, 16(Spring).
 19. ***Madlock-Brown, C.**, Eichmann, D. (2016). The Scientometrics of Successful Women in Science. *Proceedings of the IEEE/ACM International Conference on Advances in Social Network Analysis and Mining*.
 20. ***Madlock-Brown, C. R.**, & Eichmann, D. (2015). The (lack of) impact of retraction on citation networks. *Science and Engineering Ethics*, 21(1), 127–137.
 21. *Chin, S.C., **Madlock-Brown, C.**, Street, W. N., Eichmann, D. (2012) Firework visualization: A model for local citation analysis, *Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium*, 2012, pp. 121130.
 22. ***Madlock-Brown, C.**, Chin, S.C., Eichmann, D. (2012). InfoATV: enhancing PIM systems to support re-finding to (re) discovery, *PIM 2010-Proceedings of Personal Information Management, Workshop at CSCW*, 12; 26.

*Preprints (*data-based)*

1. *O’Neil ST, **Madlock-Brown C**, Wilkins KJ, McGrath BM, Davis HE, Assaf GS, et al. Finding Long-COVID: Temporal Topic Modeling of Electronic Health Records from the N3C and RECOVER Programs (2023). *medRxiv*.
2. *Bhatia A, Preiss AJ, Xiao X, Brannock MD, Alexander GC, Chew RF, Fitzgerald, M., Hill, E., Kelley, E., Mehta, H., **Madlock-Brown, C.**, Wilkins, K., Chute, C., Haendel, M., Moffitt, R., Pfaff, E., The N3C Consortium. (2023). Effect of Nirmatrelvir/Ritonavir (Paxlovid) on Hospitalization among Adults with COVID-19: an EHR-based Target Trial Emulation from N3C. *medRxiv*.

*Submitted (*data-based,, underline student trainees,).*

1. *Alshakhs, M., Goedecke, P., Chinthala, L., Weiskopf, N., **Madlock-Brown, C.** (2023). Between Healthcare Burden and BMI as Stratified by Race in the US. Submitted to Clinical Obesity.

Peer-reviewed Book Chapters

1. Camacho-Rivera, M., Islam, J. Y., Vidot, D. C., Espinoza, J., Galiatsatos, P., Sule, A., Subbian, V., **Madlock-Brown, C. R.** (2022). Social Determinants of Health During the COVID-19 Pandemic in the US: Precision Through Context. Hsueh, P.-Y. S., Wetter, T., Zhu, X. (Eds.), *Personal Health Informatics: Patient Participation in Precision Health*. Springer International Publishing, pp. 397--425).
2. **Madlock-Brown, C. R.**, Sharp, M. Y. (2020). Clinical Data Management. *Health Information Management: Concepts, Principles, and Practice*, Sixth Edition. AHIMA.
3. **Madlock-Brown, C.**, Sharp, M. Clinical Data Management. In *Health Information Management: Concepts, Principles, and Practice*, Fifth Edition. AHIMA, 2016.
4. **Madlock-Brown, C.**, Brooks, I., Beem, J.* “Data Mining.” In *Health Analytics*, First Edition. Routledge, 2019.

Non-Peer Reviewed Book Chapters

1. Understanding Data Harmonization. Lisa O’Keefe, **Madlock-Brown, C. R.**, Andréa Volz (Eds.), (2020). *Reusable Data Best Practices*. CD2H Data Working Group. <https://reusable-data-best-practices.readthedocs.io/en/latest/>

Media Coverage

1. Hopkins Tanne, J. “COVID-19: US studies show racial and ethnic disparities in long covid.” *BMJ*. 2023 March 6; 380:p535. <https://www.bmj.com/content/380/bmj.p535>
2. Article cited in Belluck, P. n.d. “Over 75 Percent of Long Covid Patients Were Not Hospitalized for Initial Illness, Study Finds.” *New York Times*. May 18th, 2022. <https://www.nytimes.com/2022/05/18/health/long-covid-hospitalization.html>.
3. Madhusoodanan J. “Unlocking the potential of health data to help research and treatments.” *Nature*. 2022 May 3;605(7908):182–3. <https://www.nature.com/articles/d41586-022-01205-0>.
4. Roberts, J. n.d. “Where and how you live matter when it comes to COVID-19.” *Memphis Local, Sports, Business & Food News / Daily Memphian*. January 19th, 2021. <https://dailymemphian.com/article/19331/where-you-live-and-how-matters-when-it-comes-to-coronavirus>.

5. Roberts, J. n.d. "At UTHSC, W.C. Handy's Cornet Symbolizes Innovation, Team Science." *Daily Memphian*. May 29th, 2020. <https://dailymemphian.com/article/14446/at-uthsc-wc-handys-cornet-symbolizes-innovation>.
6. Grove, Jack. 2017. "Research Networks 'More Important' for Female Scientists." *Times Higher Education (THE)*. February 16, 2017. <https://www.timeshighereducation.com/news/research-networks-more-important-female-scientists>.

Scientific and Educational Research Grants

Funded Extramural Research Grants

Federal

Title: Iron-CLAD: securely advancing AoU participant characterization with proven platforms and collaborations

Role: site PI

Funding source: NIH Office of the Director, OT2OD036113-01

Current Status: Active

Dates: 2023-2025

Amount: \$711,630

Title: A Post-Acute Sequelae of SARS-CoV-2 Infection Initiative: NYU Langone Health Clinical Science Core, Data Resource Core, and PASC Biorepository Core

Role: site PI

Funding source: National Heart, Lung, and Blood Institute, OT2HL161847-01

Current Status: Active

Dates: 2021-2023

Amount: \$255,000

Title: Data Driven Identification of Costly Multimorbidities and their Progressions

Role: PI

Funding source: National Institute of Aging, R15 AG067232

Current Status: Active

Dates: 2020-2024

Amount: \$435,338

Title: Managing Obesity by Leveraging Health Information Technology to Lower Cancer Risk

Role: co-I

Funding source: National Cancer Institute, R01 CA267643-01

Current Status: Active

Dates: 2021-2026

Amount: \$3,195,300

Pending Extramural Research Grants

Title: Linked Enclave of Alzheimer's Data - Clinical and Cohort Collaborative (LEAD3C)

Role: co-I

Funding source: National Institute of Health

Current Status: Pending

Dates: 2024-2030

2-25-2020

Amount: \$312,000,000

Title: Epidemiology and Biosocial risk factors for adverse outcomes of COVID-19 in people with sickle cell disease: Analyses of national COVID surveillance registry

Role: c-I

Funding source: National Institute of Minority Health and Health Disparity

Current status: Pending

Dates: 2024-2029

Amount: \$445,920

Title: A Post-Acute Sequelae of SARS-CoV-2 Infection Initiative: NYU Langone Health Clinical Science Core, Data Resource Core, and PASC Biorepository Core

Role: site PI

Funding source: National Heart, Lung, and Blood Institute, OT2HL161847-01

Current status: Pending

Dates: 2024

Amount: \$100,000

Funded Intramural Research Grants

The University of Tennessee

Title: *MFCI, BURST and OMICS; mining actionable insights for the biomedical researcher.*

Role: co-PI

Funding source: University of Tennessee Health Science Center Cornet Grant

Current status: Completed

Dates: 2016

Amount: \$25,000

The University of Iowa

Title: *Clusters of Continuous Glucose, Sleep Monitoring, and Pain*

Role: co-I

Funding source: University of Iowa College of Nursing

Dates: 2024

Amount: \$15,000

Research and Clinical Presentations

National

Peer-reviewed Abstracts (underline student trainees)

1. Jackson, B., Alshakhs, M., Lemon, C., Goedecke, T., Belachew, A., Stoutenburg, M., Bailey, J., Reynolds, R., Madlock-Brown, C., (2023). *Progression of Prevalent Multimorbidity Patterns: A Cross-sectional Study*. AMIA Informatics Summit. Mar. 13th – 16th, Seattle, WA.
2. Alshakhs, M., Jackson, B., Ikponmwosa, D., Reynolds, R., & Madlock-Brown, C. (2022). *Multimorbidity Patterns Across Race/Ethnicity Adjusted for Age and Obesity: A Cross-sectional Study of a National U.S. Sample*. AMIA Informatics Summit. Mar. 21st – 24th, Chicago, IL.
3. Cook, L., Espinoza, J., Weiskopf, N., Mathews, N., Dorr, D., Gonzales, K., Wilcox, A., Madlock-Brown, C. R. (2022). *Variability in Reporting of Patient Data About Race and Ethnicity in the National COVID Cohort Collaborative Data Enclave*. AMIA Informatics Summit. Mar. 21st – 24th, Chicago, IL.

2-25-2020

4. Jackson, B., Author, **Madlock-Brown, C. R.**, *Predicting Lung Cancer Amongst Patients at High Risk for Lung Cancer*, American Health Information Management Association Annual Meeting. October 14, 2020, Atlanta, GA, United States.
5. Reynolds, R. B., Author, Sharp, M. Y., **Madlock-Brown, C. R.**, 2020 Assembly on Education, *What employers want: A view of the current HIM workforce demands*, American Health Informatics Association Annual Meeting. August 5, 2020, Virtual.
6. Reynolds, R. **Madlock-Brown, C.**, Hall, L. *Preparing a HIIM curriculum for real-world application*. Assembly on Education/Symposium/ Faculty Development Institute, July 29, 2019. Atlanta, GA.
7. Reynolds, R., **Madlock-Brown, C.**, & Sharp, M. *Validation of the AHIMA Career Map*, AHIMA19 Health Data and Information Conference, September 16, 2019. Chicago, IL.
8. **Madlock-Brown, C.**, Barnett, B. *CohortGen: Promoting Collaboration Through Automatic Cohort Generation*. Science of Team Science Conference, Lansing, MI June 21st 2019.
9. **Madlock-Brown, C.**, Eichmann, D. *Subject Diversity By Researcher Role, and Its Effects on Research Performance for Three University Medical Centers*, Science of Team Science Conference, Bethesda, MD June 3rd 2015.
10. **Madlock-Brown, C.**, Eichmann, D. *Research Networks and the Gender Gap: a Scientometric Study*, Science of Team Science Conference, Austin, TX June 4th 2014.
11. **Madlock-Brown, C.**, Eichmann, D. *Assessing the Translational Capacity of Three CTSA: a Scientometric Analysis*, Science of Team Science Conference, June 3rd 2014.

Peer-reviewed Posters (underline student trainees)

1. Chinthala, L.,* Lemon, C., * Barnett, B., **Madlock-Brown, C.** (2022). Evaluation of Apache cTAKES, MetaMap, and QuickUMLS for SDoH extraction from clinical narratives. *AMIA Informatics Summit*. March 21st – 24th, Chicago, IL.
2. Hussain, F., * **Madlock-Brown, C.** Economic Burden of Obesity on Outpatient Office Visits. (2022). *AMIA Clinical Informatics Conference*. May 24th- 26th, Houston, TX.
3. Bruno, R.,* **Madlock-Brown, C.**, Caton, L. (2016). Predictive algorithms in the electronic medical record to reduce alert fatigue. *ASHP Midyear Clinical Meeting*. December 4th- 8th, Las Vegas, NV.

Peer-reviewed Panel Presentations (underline student trainees)

1. Madlock-Brown, C., Gilbertson-White, S., Davis, H., Geary, C., Knosp, B., (2023). *The Informatics of Multimorbidity Research*. AMIA Annual Symposium. Nov. 11th – 25th, New Orleans, LA.
2. Phuong, J. Madlock-Brown, C., Patel, R., Geary, C., Mathews, N., Solomonides, A., Adams, B., (2023). Extending the EHR to support clinical and research use of Social Drivers of Health (SDoH) data. AMIA Annual Symposium. Nov. 11th – 25th, New Orleans, LA.
3. Madlock-Brown, C., Bhatia, A., Pfaff, E., Weiskopf, N., (2023). *Considerations for long-COVID research using real-world data*. AMIA Informatics Summit. Mar. 13th – 16th, Seattle, WA.
4. Chute, C., Walden, A., Pfaff, E., Gabriel, D., **Madlock-Brown, C.** (2022). *How distributed clinical observations become big-data COVID research publications, using the N3C and Artificial Intelligence and Equity in Biomedicine and Healthcare*. AMIA Informatics Summit. Mar. 21st – 24th, Chicago, IL.
5. Solomonides, A., Paltoo, D., **Madlock-Brown, C.**, Phuong, J., Shaban-Nejad, A., Subbain, V. (2022). *Machine Learning, Data Algorithms, and Equity in Biomedicine and Healthcare*. AMIA Informatics Summit. Mar. 21st – 24th, Chicago, IL.’

Invited Presentations

State/Regional

1. **Madlock-Brown, C.**, Koehler, M., Oral Presentation. Tennessee Health Information Management Association. *SDOH and HI Intersections*. Nashville, TN. (March 27th, 2023).
2. **Madlock-Brown, C.**, Oral Presentation. Tennessee Health Information Management Association. *From Coding to Analytics – The Future is Bright*. Knoxville, TN. (April 8th, 2022).

Local

1. **Madlock-Brown, C.**, Oral Presentation. Center for Advancing Multimorbidity Science, *How to Incorporate Multimorbidity into a Successful Research Proposal*, University of Iowa, Virtual, Iowa City, Iowa. (June 14th, 2022).
2. **Madlock-Brown, C.**, Keynote Presentation. Artificial Intelligence Workshop. *Social Determinants of Health Factors for AI Research, Considerations and Tips*. Wake Forest School of Medicine. (May 24th, 2022).
3. **Madlock-Brown, C.**, Oral Presentation. Biomedical Informatics Ground Rounds, *N3C Social Determinants of Health Domain Team*, The University of Utah School of Medicine. (April 7th, 2022).
4. **Madlock-Brown, C.**, Jackson, B., Oral Presentation. Biomedical Informatics Seminar Series, *Multimorbidity Patterns Across Race/Ethnicity Stratified by Age and Obesity: A Cross-sectional Study of a National US Sample*, Columbia University Department of Biomedical Informatics. (November 11th, 2021).
5. **Madlock-Brown, C. R.**, Reynolds, R. B., Sharp, M. Y., Oral Presentation. Annual Meeting, *Current workforce demands for Health Information Management professionals*, Mississippi Health Information Management Association. (June 24th, 2021).
6. **Madlock-Brown, C. R.**, Sharp, M. Y., Reynolds, R. B., Oral Presentation. Pennsylvania HIM Virtual Annual conference, *Current workforce demands for Health Information Management professionals*, Pennsylvania Health Information Management Association, Virtual, PA. (April 26th, 2021).
7. **Madlock-Brown, C. R.**, Oral Presentation. Center for Advancing Multimorbidity Science, *Identifying common multimorbidity groupings in middle-aged and elderly populations in the United States: a cross-sectional study*, University of Iowa, Virtual, Iowa City, Iowa. (December 8th, 2020).
8. **Madlock-Brown, C. R.**, Phuong, J., Oral Presentation. Kaiser Permanente Social Health Analytics Network Group, *The National COVID Cohort Collaborative and Social Determinants of Health*, Kaiser Permanente. (February 18th, 2021).
9. **Madlock-Brown, C. R.**, Keynote/Plenary Address. Data Science for the Public Good Symposium, *Social determinants of health related to COVID-19: disparities between urban and rural communities*, Oregon State University, Virtual, Corvallis, OR, United States. (August 21st, 2020).
10. **Madlock-Brown, C. R.**, Reynolds, R. B., Sharp, M. Y., Oral Presentation. Author, Annual Conference, *Validation of the AHIMA Career Map*, Memphis Health Information Management Association, Memphis, TN. (March 6th, 2019).

National

1. **Madlock-Brown, C.**, Speaker. Unraveling Links between Chronic Inflammation and Long COVID Virtual Meeting, *Selection Criteria, and Representation*. National Cancer Institute. Virtual. (September 21st, 2023).
2. **Madlock-Brown, C.**, Keynote. *Tackling Bias in Healthcare in the Age of AI*. Aspen Ethical Leadership Program. The Aspen Center for Social Values. Aspen, CO. (September 13th, 2023).

3. **Madlock-Brown, C., R.**, Speaker. AI for Health Equity Virtual Symposium 2023. *Challenges of using SDoH and race/ethnicity data for Health Equity Research*. AIM-AHEAD: Artificial Intelligence/Machine Learning Consortium to Advance Health Equity And Researcher Diversity, Virtual. (June 29th, 2023).

SERVICE

Scientific Review Panels

2021 Member “Smart Health and Biomedical Research in the Era of AI and Advanced Data Science,” National Science Foundation solicitation 21-530

Conference Program Committees

2023 Member American Medical Informatics Association Annual Symposium Scientific Program Committee

Journal Peer Review

2023 BMJ Open
 2023 The Lancet Digital Health
 2023 Lancet Infectious Diseases
 2023 Annals of Epidemiology
 2022-2023 Nature Communications Medicine
 2022 Journal of the American Medical Informatics Association
 2019 JAMA Network Open Journal
 2018 Accountability in Research Policies and Quality Assurance journal
 2018 Ethics and Behavior Journal
 2018 – 2021 Science and Engineering Ethics Journal
 2015 – 2018 Social Network Analysis and Mining Journal.
 2015 Experimental Biology and Medicine Journal

Conference Peer Review

2022-2023 American Medical Informatics Association Summit

Society/Association Membership, Participation, and Leadership

National

2022 – Present Member Diabetes Technology Society Integration of Continuous Glucose Monitor Data into the Electronic Health Record (iCoDE) Steering Committee
 2021– Present Member Observational Health Data Sciences and Informatics (OHDSI) Health Equity Workgroup
 2020 – Present Co-lead National COVID Cohort Collaborative (N3C) Social Determinants of Health Domain Team
 2020 – Present Member National Center for Data to Health (CD2H)
 2019 – 2020 Member Graduate Resource Alliance American Medical Informatics Association (AHIMA)
 2015 – Present Member American Medical Informatics Association (AMIA)

2-25-2020

2015 – Present Member American Health Information Management Association (AHIMA)

State

2019 – 2023 Chair Tennessee Health Information Management Association Coding and Data Analytics Committee

2018 – 2018 Member Tennessee Health Information Management Association Governance Committee

University Service

University of Tennessee Health Science Center

2021 – 2023 Faculty Liaison Information Technology Services Research Technology Committee

2021-2022 Secretary Faculty Senate

2021 Analyst Operational Strategic Plan for Research Committee

2019 – 2023 Member Office of Research T3/T4 Implementation Committee.

2019 – 2022 Member Faculty Senate Computing & Technology Committee

2017 – 2018 Member Data Protection Project

2015 – 2016 Analyst Operational Strategic Plan for Research Committee

Collegiate Service

University of Iowa

2023 – Present Member College of Nursing Promotion and Tenure Taskforce

University of Tennessee health Science Center

2019 – 2023 Member College of Health Professions Research Committee

2015 – 2023 Member Health Informatics and Information Management Curriculum Committee

Community Service

Local

2017 Instructor & Developer Girls Inc. High School Website Development Camp

TEACHING

Instructional Activities

Course Instruction

University of Tennessee Health Science Center

2019 – 2022 Instructor (HIIM 607) Statistics and Decision Making

2018 – 2023 Instructor (HOPR 854) Knowledge Management

2016 – 2023 Instructor (HOPR 920), Health Data Analytics

2016 – 2023 Instructor (MHIM 608), Knowledge Management

2016 – 2023 Instructor (HOPR 861) Health Data Processing and Management

2015 – 2019 Instructor (MHIM 601) Quality Management in Health Service

2016 – 2017 Instructor (MHIM 605) Healthcare Information System

2-25-2020

University of Iowa

2013 Teaching Assistant Computer Analysis (06K:070)
2011 –2014 Teaching Assistant Visual Basic (6k:226)

New Course Development

University of Tennessee Health Science Center

2016 (HOPR 854), Knowledge Management
2016 (HOPR 920), Health Data Analytics
2016 (HOPR 861), Health Data Processing and Management

New Program, Certificate or Track Development

University of Tennessee Health Science Center

2016 Co-developer Health outcomes and Policy Research Program Health Informatics Track

Guest Lecture

2023 *Challenges of using data from different sources, including data quality assessment and harmonizing and standardizing data.* Health Equity and Big Data for the AIM-AHEAD training, Johns Hopkins, Department of Medicine.
2023 *So, you want to use “Real World” Data?* Research Design, PhD Program, College of Nursing, University of Iowa.
2023 *Intro. To Data Visualization.* INSIGHT Summer Research Program, University of Washington.

Mentoring and Advisement

PhD Student Advisor/Chair

University of Tennessee Health Science Center

2021 – Present Cindy Lemon, Health Outcomes and Policy Research Health Informatics Track
Funding: National Institute of Aging R 15
2018 – Present Bianca Jackson, Health Outcomes and Policy Research Health Informatics
Track
Funding: National Institute of Aging R 15
Comprehensive Exam Spring 2022
2018 – Present Davina Ikponwosa, Health Outcomes and Policy Research Health Informatics
Track
Comprehensive Exam Spring 2023
2018 – 2023 Leigh McCormack, Health Outcomes and Policy Research Health Informatics
Track
Comprehensive Exam Fall 2021
Dissertation Defense Fall 2023
Dissertation Title: Shifting Emergency Department Utilization Patterns Among
Vulnerable Populations During the COVID-19 Pandemic
2018 – 2023 Manal Alshakhs, Health Outcomes and Policy Research Health Informatics
Track
Comprehensive Exam Fall 2020
Dissertation Defense Spring 2023
Dissertation Title: Multimorbidity in Diverse Populations: Stratified Analysis of
Race/Ethnicity, Age, Obesity, and Healthcare Costs

2-25-2020

PhD Student Committee Member

University of Tennessee Health Science Center

2018 – 2019 April Insko, Health Outcomes and Policy Research Health Informatics Track
Comprehensive Exam Fall 2020
Dissertation Defense: Spring 2020
Dissertation Title: Sepsis: Does the Clinical Criteria Support the Medical Coding?

Columbia University

2023 Tony Sun, Department of Biomedical Informatics
Dissertation Defense: Fall 2023
Dissertation Title: High-throughput Characterization of Diagnosis Disparities Across Conditions and Observational Datasets

Oregon Health & Science University

2022 Lily Cook, Medical Informatics & Clinical Epidemiology Track
Dissertation Defense: Spring 2022
Dissertation Title: Data quality and social determinants of health: methods for health equity research

Master's Student Advisees

University of Tennessee Health Science Center

2021 Faisal Hussain, Health Informatics and Information Management
Thesis Title: Economic Burden of Obesity on Outpatient Office Visits

2021 Cindy Lemon, Health Informatics and Information Management
Thesis Title: *Adverse Childhood Experiences (ACEs) and their Association to Childhood Suicide: A Retrospective Cohort Study of a US National Sample*

2020 Kent Tyler, Health Informatics and Information Management
Thesis Title: *Analysis of Prediabetic HgA1c Level Relationships of Follow-up Encounters Among Races in Urban Facilities*

2020 Cody Tyler, M.A. student, Health Informatics and Information Management
Thesis Title: *Measuring the Impact of Patient Access to Care Through Telemedicine*

2020 Tyler Finocchio, M.A. student, Health Informatics and Information Management
Thesis Title: *Time to Development of Overt Diabetes, Macrovascular, & Microvascular Complications Among Patients with Prediabetes: A Retrospective Cohort Study*

2018 – 2019 Qian Zhao, Health Informatics and Information Management
Thesis Title: *Characteristics of autism spectrum disorder medication trends in a major electronic health record system database: A student pharmacist's perspective.*

2018 – 2019 Ryan Pain, Health Informatics and Information Management
Thesis Title: *An analysis of cost and trends in healthcare for an obese population based on region of the country and medication usage*

2018 Miguel Caritan, M.A. student, Health Informatics and Information Management
Thesis Title: Analysis of User Access Controls in a Hospital Environment

2-25-2020

- 2017 – 2018 Alaina Darby, Health Informatics and Information Management
Thesis Title: Survey study of institutional pharmacists assessing acceptance and resistance to use of electronic medical record systems and associated technology.
- 2017 James Beem, Health Informatics and Information Management
Thesis Title: Challenges in Applying Advanced Analytics Technologies to the Healthcare Landscape
- 2016– 2017 Robert Bruno, Health Informatics and Information Management
Thesis Title: Data Mining in the Electronic Medical Record to Reduce Alert Fatigue
- 2016– 2017 Billy Barnett, Health Informatics and Information Management
Thesis Title: Strategy for Summarizing a Healthcare Data Warehouse
- 2016 Stacy Weigandt, M.A. student, Health Informatics and Information Management
Thesis Title: Can Data Mining Techniques Be Used To Detect Fraudulent Claims?
- 2015 Torian Tate, Health Informatics and Information Management
Thesis Title: *The challenges of establishing partners in health information exchange (HIE)*