CURRICULUM VITAE

Charisse Madlock-Brown, PhD

Associate Professor

College of Nursing,
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Iowa City, Iowa 52242
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December 19th, 2024

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

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SCHOLARSHIP

Publications

Published Peer Reviewed Papers (data-based, asterisk; student trainees, underline; co-first or co-last author, double asterisk)

1. Ethnic and Racial Differences in Children with Respiratory and Neurological Post-Acute Sequelae of SARS-CoV-2: An EHR-based Cohort Study (2024). *eClinical Medicine (in press).*
2. *O'Neil ST, **Madlock-Brown C,** Wilkins KJ, McGrath BM, Davis HE, Assaf GS, Wei H, Zareie P, French E, Looba J, McMurry J, Zhou A, Chute C, Moffitt R, Pfaff E, Jae Yoo Y, Leese P, Chew R, Lieberman M, Haendel M. Finding Long-COVID: Temporal Topic Modeling of Electronic Health Records from the N3C and RECOVER Programs (2024). *NPJ Digital Medicine.*
3. Islam JY, Hurwitz E, Li D, Camacho-Rivera M, Sun J, Safo S, Ross J, Wilkins K, Hassan S, Hill E, Nosyk B, Varley C, Fadul N, **Madlock-Brown C,** Patel R. Associations of County-Level Social Determinants of Health with COVID-19 Related Hospitalization Among People with HIV: A Retrospective Analysis of the U.S. National COVID Cohort Collaborative (N3C). AIDS
4. *Vaidya, D., Wilkins, K. J., Hurwitz, E., Islam, J. Y., Li, D., Sun, J., Safo, S. E., Ross, J. M., Hassan, S., Hill, E., Nosyk, B., Varley, C. D., Fadul, N., Camacho-Rivera, M., **Madlock-Brown, C.,** & Patel, R. C.** (2024). Assessing associations between individual-level social determinants of health and COVID-19 hospitalizations: Investigating racial/ethnic disparities among people living with HIV in the U.S. National COVID Cohort Collaborative (N3C). *Journal of Clinical and Translational Science*, 1-43.
5. *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).*
6. *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, 23(2103).*
7. *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).
8. *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**.
9. 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.

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10. *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. J*MIR Medical Informatics,* **10**:e39235.

11. *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).

12. ***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.

13. *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.

14. *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.

15. *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.

16. *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).

17. *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.*, Matentzoglu, 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., Vavougios, G., Wang, L., Haendel, M., Robinson, P. (2021). Characterizing Long COVID: Deep Phenotype of a Complex Condition. *EBioMedicine*, *74*, 103722.

18. ***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).

19. ***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.

20. *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.

21. ***Madlock-Brown, C** and Reynolds, R. (2019). Identifying obesity-related multimorbidity combinations in the United States." *Clinical Obesity,* 9(6).

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22. *<u>Darby, A. B.,</u> 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).

23. ***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.*

24. ***Madlock-Brown, C. R.,** & Eichmann, D. (2015). The (lack of) impact of retraction on citation networks. *Science and Engineering Ethics*, *21*(1), 127–137.

25. *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.

26. ***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. ***Madlock-Brown C**, Lee A, Seltzer J, Solomonides A, Mathews N, Phuong J, Weiskopf N, Adams W, Lehmann H, Espinoza J (2024). Racial Disparities in Diabetes Care and Outcomes for Patients with Visual Impairment: A Descriptive Analysis of the TriNetX Research Network. *Research Square.*

2. Goedecke P, Nakahara A, Pope S, **Madlock-Brown C,** Sen S, Singarella I, Mari G, Mockus A (2024). Social Determinants of Health as Primary Risk Factors of Hypertensive Disorders of Pregnancy: A Retrospective Cohort Study. *Research Square.*

3. *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.*

Peer-reviewed Book Chapters

1. ***Madlock-Brown, C. R.***, Sharp, M. Y. (2024). Clinical Data Management. *Health Information Management: Concepts, Principles, and Practice*, Sixth Edition. AHIMA (**in press**).

2. 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).

3. ***Madlock-Brown, C. R.***, Sharp, M. Y. (2020). Clinical Data Management. *Health Information Management: Concepts, Principles, and Practice*, Sixth Edition. AHIMA.

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4. **Madlock-Brown, C.,** Sharp, M. Clinical Data Management. In *Health Information Management: Concepts, Principles, and Practice,* Fifth Edition. AHIMA, 2016.

5. **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. Interviewed for: 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/Contracts

Funded Extramural Research Grants/Contracts

Federal

2-25-2020

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: co-I

Funding source: National Institute on Minority Health and Health Disparities, 1R21MD019336-01

Current Status: Active

Dates: 2024- 2025

Amount: $243,880

Type: Grant

Title: National Clinical Data Collaborative (NaCDaC)

Role: site-PI

Funding source: National Center for Advancing Translational Sciences, 75N95023D00001

Current Status: Active

Dates: 2022- 2023

Amount: $ 133,730

Type: Contract

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

Role: Multiple PI

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

Current Status: Active

Dates: 2023-2025

Amount: $711,630

Type: Contract

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

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Role: site PI

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

Current Status: Active

Dates: 2021-2024

Amount: $378,599

Type: Contract

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

Type: Grant

Title: Data Driven Identification of Costly Multimorbidities and their Progressions

Role: PI

Funding source: National Institute of Aging, R15 AG067232

Current Status: Completed

Dates: 2020-2024

Amount: $435,338

Type: Grant

Funded Intramural Research Grants

The University of Iowa

Title: Clusters of Continuous Glucose, Sleep Monitoring, and Pain
2-25-2020

Role: co-I

Funding source: University of Iowa College of Nursing

Dates: 2024

Amount: $15,000

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

Research and Clinical Presentations

National

Peer-reviewed Abstracts (underline student trainees)

1. Anderson AR, Dietrich MS, Moss KO, **Madlock-Brown C,** Dong F, Cowan RL, Boon JT, Moon C, Failla MD, Monroe TB. "Sleep, pain interference, depression, and stress in people living with Alzheimer's disease compared to cognitively-intact controls." Poster presented at National Hartford Center of Gerontological Nursing Excellence (NHCGNE), virtual.

2. Haendel M, Rahman N, Moffitt R, **Madlock-Brown C,** Pfaff E, Phuong J, Barth-Jones D, Phua J, Chris C, Galey D, Gugerty B, Musick A, Berman L, Ramirez A. *Knowledge-Driven Data Sharing Governance: Developing a data provenance model for constructing context-aware data sharing frameworks for linkage data within the All of Us Research Program.* International Journal of Population Data Science 2024 [cited 2024 Nov 24];9(5).

3. 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.

4. <u>Alshakhs, M., Jackson, B., Ikponmwosa, D.</u>, 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.

5. <u>Cook, L.</u>, 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.

6. <u>Jackson, B.</u>, 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.

7. 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.

8. 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.

9. Reynolds, R., **Madlock-Brown, C.**, & Sharp, M. *Validation of the AHIMA Career Map,* AHIMA19 Health Data and Information Conference, September 16, 2019. Chicago, IL.

10. **Madlock-Brown, C.**, <u>Barnett, B.</u> *CohortGen: Promoting Collaboration Through Automatic Cohort Generation.* Science of Team Science Conference, Lansing, MI June 21st 2019.

11. **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.

12. **Madlock-Brown, C.**, Eichmann, D. *Research Networks and the Gender Gap: a Scientometric Study,* Science of Team Science Conference, Austin, TX June 4th 2014.

13. **Madlock-Brown, C.**, Eichmann, D. *Assessing the Translational Capacity of Three CTSAs: a Scientometric Analysis,* Science of Team Science Conference, June 3rd 2014.

Peer-reviewed Posters (underline student trainees)

1. September 2024: Anderson AR, Dong F, **Madlock-Brown C,** McPhillips MV, Hodgson NA. "Association between pain behaviors and sleep impairment among people living with cognitive impairment." Poster presented at International Psychogeriatric Association (IPA), Buenos Aires, Argintina.

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2. 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.

3. Hussain, F., * **Madlock-Brown, C.** Economic Burden of Obesity on Outpatient Office Visits. (2022). *AMIA Clinical Informatics Conference*. May 24th- 26th, Houston, TX.

4. 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

2-25-2020

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

Congressional Testimony

2024 Expert Witness Written Testimony for the U.S. Senate Committee on Health, Education, Labor and Pensions hearing on "Addressing Long COVID: Advancing Research and Improving Patient Care," United States Senate Committee on Health, Education, Labor and Pensions.

Scientific Review Panels

2024 Member "Clinical Informatics and Digital Health Study Section," National Institutes of Health. February and August study sections.

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

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2024	Journal of Clinical and Translational Science
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
2021, 2023	Scientometrics
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

2023 – Present Member Association (AMIA)	Informatics Maturity Working Group, American Medical Informatics
2021– 2023 Member	Observational Health Data Sciences and Informatics (OHDSI) Health Equity Workgroup
2022 – 2023 Member	Diabetes Technology Society Integration of Continuous Glucose Monitor Data into the Electronic Health Record (iCoDE) Steering Committee
2020 – Present Co-lead	National COVID Cohort Collaborative (N3C) Social Determinants of

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Health Domain Team

2020 – 2022 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)

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

Regional

2024 –Present Member   Big Ten Academic Alliance Nursing Informatics committee

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 Iowa

2023- Present   Member   Iowa Health Data Resource (IHDR) Advisory and

Implementation Team

2024   Member   Vice President for Research (VPR) Search Committee

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.

2-25-2020

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

2024	Member	Distinguished Scholar in Nursing Committee
2024 – Present	Member	Bio Nursing Informatics Core
2023 – Present	Member	Reappointment, Promotion and Tenure Committee

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 Iowa

2024	Instructor	*Doctor of Nursing Practice Project IV (*NURS:6829:0EXW)
2013	Teaching Assistant	Computer Analysis (06K:070)

2-25-2020

2011 –2014 Teaching Assistant   Visual Basic (6k:226)

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

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

2023–2024   *So, you want to use "Real World" Data?* Research Design, PhD Program,
                     College of Nursing, University of Iowa.

2-25-2020

2023–2024	*Intro. To Data Visualization.* INSIGHT Summer Research Program, University of Washington.
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.

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 Iowa

2024 Alaa Herb, College of Nursing

ISP Exam: Summer 2024

University of Tennessee Health Science Center

2018 – 2019 April Insco, 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

2-25-2020

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 Manageme
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

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

2-25-2020

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)*