

Evan L. Reynolds, Ph.D.

Assistant Professor
Michigan State University
Department of Epidemiology and Biostatistics
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EDUCATION

University of Michigan

*Post-Doctoral Training
Clinical Neuroscience
NIH NINDS T32NS007222*

Ann Arbor, MI
July 2019 - June 2021

University of Michigan

*Doctor of Philosophy, Biostatistics
Dissertation Title: "Statistical Learning Methods for Electronic Health Records Data"
Graduate Certificate in Data Science*

Ann Arbor, MI
December 2018

University of Michigan

Master of Science, Biostatistics

Ann Arbor, MI
May 2015

Michigan State University

*Bachelor of Science, Statistics
Graduation with Honors
Honors College
Second Major: Political Science
Minor: Mathematics*

East Lansing, MI
May 2013

ACADEMIC POSITIONS

Michigan State University, Department of Epidemiology and Biostatistics
Assistant Professor

East Lansing, MI
April 2024 - Present

University of Michigan, Department of Neurology
*Postdoctoral Research Fellow
NIH NIDDK K99DK129785*

Ann Arbor, MI
July 2019 – March 2023

OTHER PROFESSIONAL APPOINTMENTS

Veterans Affairs, Ann Arbor Healthcare System
Research Health Science Specialist (Without Compensation)

Ann Arbor, MI
July 2019 - Present

University of Michigan, Department of Neurology
Statistician Lead

Ann Arbor, MI
January 2019 - July 2019

University of Michigan, Department of Biostatistics
Graduate Student Research Assistant

Ann Arbor, MI
March 2015 - December 2018

University of Michigan, Department of Biostatistics
Graduate Student Instructor

Ann Arbor, MI
August 2013 - March 2015

Michigan State University, Department of Microbiology
Undergraduate Student Research Assistant

East Lansing, MI
August 2010 - July 2013

RESEARCH INTERESTS

- Predicting, Preventing, and Reversing Diabetes Complications: determining the role of diabetes, obesity, and the metabolic syndrome through the use of machine learning algorithms applied to diverse and complex clinical databases
- Developing novel and clinically interpretable, machine learning methods, particularly tree-based algorithms, which can be applied in the clinic setting to influence patient care.
- Health services research: improving neurologic- and diabetes-related healthcare delivery
- Analysis of largescale healthcare databases, including Veteran Affairs Corporate Data Warehouse, OptumInsight, Medicare, Medicaid, and the UK Biobank.

FUNDING

Current Research Support

K99 DK129785 (PI, Reynolds)

April 2022- March 2027

Funding Agency: National Institutes of Health

Title: Predicting complications of diabetes with longitudinal metabolic trajectories

Summary: The goal of this project is to leverage information contained in three powerful and complementary databases to: (1) determine the association between metabolic trajectories and diabetes complications, and (2) develop a machine learning algorithm to predict future diabetic complications using specific aspects from metabolic trajectories.

Role: PI

STATISTICAL CONSULTING EXPERIENCE

Statistics in the Community

Ann Arbor, MI

University of Michigan

August 2014 - December 2018

Member (2014-2018)

- Member of Statistics in the Community (Statcom), which provides pro bono statistical consulting to local government, education, and other non-profit organizations
- Served as lead statistical consultant on over fifteen projects with community groups in Ann Arbor, Detroit and beyond
- Clients included school districts, food insecurity organizations, county health departments and other non-profit groups
- Directed meetings and communications with the client and consulting team
- Consulting methods included designing surveys, data visualization, analyzing data to improve client decision-making and developing predictions based on data trends
- Developed and delivered reports to clients in final meeting presentations

President (2015-2018)

- Facilitated the growth of Statcom from 45 to 180 student volunteers and the typical number of projects from 4 to 10 per academic year from 2015 to 2018
- Organized bi-annual group meetings and seminars
- Organized the inaugural University of Michigan Data for Public Good Symposium (Ann Arbor, MI 2018)
- Publicized Statcom through articles in the AMSTAT News (April 2018)
- Presented a paper detailing Statcom's work at the Bloomberg Data for Good Exchange (New York, NY 2018)

TEACHING EXPERIENCE

Graduate Student Instructor

Ann Arbor, MI

University of Michigan, Department of Biostatistics

August 2013 – May 2015

- Biostatistics 503, Introduction to Biostatistics
- Biostatistics 511, Computer Packages
- Biostatistics 523, Regression Analysis Methods for the Health Sciences
- Biostatistics 524, Biostatistics for Clinical Researchers
- Biostatistics 560, Statistical Methods for Epidemiology
- Biostatistics 581, Biostatistical Modeling in Clinical Research
- Biostatistics 605, Introduction to SAS

LEADERSHIP

1. **Student President, Statistics in the Community** **Ann Arbor, MI**
University of Michigan, School of Public Health 2015 - 2018
2. **Co-Organizer: Inaugural Data for Public Good Symposium** **Ann Arbor, MI**
University of Michigan April 2018
3. **Student Co-President, Biostatistics Student Association** **Ann Arbor, MI**
University of Michigan, Department of Biostatistics 2016 - 2017
4. **Curriculum Committee Student Representative** **Ann Arbor, MI**
University of Michigan, Department of Biostatistics 2015 - 2016

AWARDS AND FELLOWSHIPS

1. **Michigan Institute for Data Science Future Leaders Summit** **Ann Arbor, MI**
University of Michigan, Michigan Institute for Data Science April 2023
2. **Student Leader of the Year** **Ann Arbor, MI**
University of Michigan, School of Public Health 2017 - 2018
3. **Graduate Student of the Year** **Ann Arbor, MI**
University of Michigan, Michigan Difference Leadership Awards 2017 - 2018
4. **Health Services Research Student Fellowship** **Ann Arbor, MI**
University of Michigan, Institute for Healthcare Policy, and Innovation May 2018- August 2018
5. **Best Student Presentation** **East Lansing, MI**
Michigan State University Undergraduate Research and Arts Forum April 2012

PUBLICATIONS

Peer-Reviewed

1. **Reynolds EL**, Votruba KL, Watanabe M, Banerjee M, Elafros MA, Chant E, Villegas-Umana E, Giordani B, Feldman EL, Callaghan BC. The Effect of Surgical Weight Loss on Cognition in Individuals with Class II/III Obesity. *J Nutr Health Aging*. 2023;27(12):1153-1161. doi: 10.1007/s12603-023-2047-1. PubMed PMID: 38151865.
2. **Reynolds EL**, Mizokami-Stout K, Putnam NM, Banerjee M, Albright D, Ang L, Lee J, Pop-Busui R, Feldman EL, Callaghan BC. Cost and utilization of healthcare services for persons with diabetes. *Diabetes Res Clin Pract*. 2023 Nov;205:110983. doi: 10.1016/j.diabres.2023.110983. Epub 2023 Oct 27. PubMed PMID: 37890702
3. **Reynolds EL**, Votruba K, Beare R, Nelson RG, Callaghan BC, Feldman EL, “The association of obesity, diabetes, and metabolic risk factors with cognition and brain morphology in Native Americans with longstanding Type 2 Diabetes”. *Annals of Clinical and Translational Neurology*.
4. **Reynolds EL**, Watanabe M, Banerjee M, Chant E, Villegas-Umana E, Elafros MA, Gardner TW, Pop-Busui R, Pennathur S, Feldman EL, Callaghan BC. The effect of surgical weight loss on diabetes complications in individuals with class II/III obesity. *Diabetologia*. 2023 Mar 14;. doi: 10.1007/s00125-023-05899-3. [Epub ahead of print] PubMed PMID: 36917280; PubMed Central PMCID: PMC10011764.
5. **Reynolds E.**, Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. *Sankhya B*.
6. Davalos L, Watanabe M, Gallagher GW, Grewal A, Fudym Y, **Reynolds EL**, Callaghan BC, Banarjee M, London ZN. Diagnostic characteristics of nerve conduction study parameters for vasculitic neuropathy. *Muscle Nerve*. 2023 Jan;67(1):45-51. doi: 10.1002/mus.27753. Epub 2022 Nov 23. PubMed PMID: 36367146.
7. **Reynolds EL**, Gallagher G, Hill CE, Banerjee M, Mante A, Esper GJ, Callaghan BC. Costs and Utilization of New-to-Market Neurologic Medications. *Neurology*. 2022 Nov 30;. doi: 10.1212/WNL.000000000201627. [Epub ahead of print] PubMed PMID: 36450601.
8. Skolarus LE, Brown DL, **Reynolds EL**, Shi Y, Volow AM, Burke JF, Sudore RL. “Advance care planning engagement may increase among stroke survivors: Results from the PREPARE for Your Care Trial”. *Stroke*.
9. Afshinnia F, **Reynolds EL**, Rajendiran TM, Soni T, Byun J, Savelieff MG, Looker HC, Nelson RG, Michailidis G, Callaghan BC, Pennathur S, Feldman EL. “Serum lipidomic determinants of human diabetic neuropathy in type 2 diabetes”. *Annals of Clinical and Translational Neurology*.
10. McGinley LM, Chen KS, Mason SN, Rigan DM, Kwentus JF, Hayes JM, Glass ED, **Reynolds EL**, Murphy GG, Feldman EL. Monoclonal antibody-mediated immunosuppression enables long-term survival of transplanted human neural stem cells in mouse brain. *Clin Transl Med*. 2022 Sep;12(9):e1046. doi: 10.1002/ctm2.1046. PubMed PMID: 36101963.
11. Skolarus LE, Robles MC, Mansour M, Sudore RL, **Reynolds EL**, Burke JF, Corches CL, Brown DL. Low Engagement of Advance Care Planning Among Patients Who Had a Stroke or Transient Ischemic Attack. *J Am Heart Assoc*. 2022 Mar 15;11(6):e024436. doi: 10.1161/JAHA.121.024436. Epub 2022 Mar 1. PubMed PMID: 35229620; PubMed Central PMCID: PMC9075305.
12. Putnam NM, **Reynolds EL**, Banerjee M, Mizokami-Stout K, Albright D, Lee J, Pop-Busui R, Feldman EL, Callaghan BC. Neuropsychological Outcomes in Individuals With Type 1 and Type 2 Diabetes. *Front Endocrinol (Lausanne)*. 2022;13:834978. doi: 10.3389/fendo.2022.834978. eCollection 2022. PubMed PMID: 35317223; PubMed Central PMCID: PMC8934404.
13. Van Poznak C, **Reynolds EL**, Estilo CL, Hu M, Schneider BP, Hertz DL, Gersch C, Thibert J, Thomas D, Banerjee M, Rae JM, Hayes DF. Osteonecrosis of the jaw risk factors in bisphosphonate-treated patients with metastatic cancer. *Oral Dis*. 2022 Jan;28(1):193-201. doi: 10.1111/odi.13746. Epub 2020 Dec 14. PubMed PMID: 33274559; PubMed Central PMCID: PMC8284838.
14. **Reynolds EL**, Burke JF, Evans L, Syed FI, Liao E, Lobo R, Cooper W, Charleston L 4th, Callaghan BC. Headache neuroimaging: A survey of current practice, barriers, and facilitators to optimal use. *Headache*. 2022 Jan;62(1):36-56. doi: 10.1111/head.14249. PubMed PMID: 35041218; PubMed Central PMCID: PMC9053599.

15. Rooney SR, **Reynolds EL**, Banerjee M, Pasquali SK, Charpie JR, Gaies MG, Owens GE. Prediction of extubation failure in the paediatric cardiac ICU using machine learning and high-frequency physiologic data. *Cardiol Young*. 2021 Dec 20;:1-8. doi: 10.1017/S1047951121004959. [Epub ahead of print] PubMed PMID: 34924086.
16. Callaghan BC, **Reynolds EL**, Banerjee M, Akinci G, Chant E, Villegas-Umana E, Rothberg AE, Burant CF, Feldman EL. Dietary weight loss in people with severe obesity stabilizes neuropathy and improves symptomatology. *Obesity (Silver Spring)*. 2021 Dec;29(12):2108-2118. doi: 10.1002/oby.23246. Epub 2021 Nov 7. PubMed PMID: 34747574; PubMed Central PMCID: PMC8612943.
17. Skolarus LE, Brown DL, Corches CL, **Reynolds E**, Bailey S, Mansour M, Robles MC, Rice T, Springer MV, Burke JF, Sudore RL. Extending Advance Care Planning to Black Americans in the Community: A Pilot Study of the PREPARE Program. *J Pain Symptom Manage*. 2021 Jul;62(1):e4-e9. doi: 10.1016/j.jpainsymman.2021.02.029. Epub 2021 Feb 27. PubMed PMID: 33647422; PubMed Central PMCID: PMC8435356.
18. Mulhauser K, **Reynolds EL**, Callaghan BC, Fierro C, Giordani B, Votruba K. Executive Functioning in Extreme Obesity: Contributions from Metabolic Status, Medical Comorbidities, and Psychiatric Factors. *Obes Surg*. 2021 Jun;31(6):2669-2681. doi: 10.1007/s11695-021-05319-8. Epub 2021 Mar 4. PubMed PMID: 33660154.
19. Rumora AE, Guo K, Alakwaa FM, Andersen ST, **Reynolds EL**, Jørgensen ME, Witte DR, Tankisi H, Charles M, Savelieff MG, Callaghan BC, Jensen TS, Feldman EL. Plasma lipid metabolites associate with diabetic polyneuropathy in a cohort with type 2 diabetes. *Ann Clin Transl Neurol*. 2021 Jun;8(6):1292-1307. doi: 10.1002/acn3.51367. Epub 2021 May 6. PubMed PMID: 33955722; PubMed Central PMCID: PMC8164865.
20. **Reynolds EL**, Akinci G, Banerjee M, Looker HC, Patterson A, Nelson RG, Feldman EL, Callaghan BC. The determinants of complication trajectories in American Indians with type 2 diabetes. *JCI Insight*. 2021 May 24;6(10). doi: 10.1172/jci.insight.146849. PubMed PMID: 34027894; PubMed Central PMCID: PMC8262294.
21. Hill CE, **Reynolds EL**, Burke JF, Banerjee M, Kerber KA, Magliocco B, Esper GJ, Skolarus LE, Callaghan BC. Increasing Out-of-Pocket Costs for Neurologic Care for Privately Insured Patients. *Neurology*. 2021 Jan 19;96(3):e322-e332. doi: 10.1212/WNL.0000000000011278. Epub 2020 Dec 23. PubMed PMID: 33361253; PubMed Central PMCID: PMC7884984.
22. Davalos L, Nowacek D, Elsheikh B, **Reynolds EL**, Maher Stino A. Cerebrospinal Fluid Protein Level and Mechanical Ventilation in Guillain-Barré Syndrome patients. *J Neuromuscul Dis*. 2021;8(2):299-303. doi: 10.3233/JND-200581. PubMed PMID: 33459659.
23. **Reynolds EL**, Callaghan BC, Banerjee M, Feldman EL, Viswanathan V. The metabolic drivers of neuropathy in India. *J Diabetes Complications*. 2020 Oct;34(10):107653. doi: 10.1016/j.jdiacomp.2020.107653. Epub 2020 Jun 11. PubMed PMID: 32624332; PubMed Central PMCID: PMC7502489.
24. **Reynolds EL**, Kerber KA, Hill C, De Lott LB, Magliocco B, Esper GJ, Callaghan BC. The effects of the Medicare NCS reimbursement policy: Utilization, payments, and patient access. *Neurology*. 2020 Aug 18;95(7):e930-e935. doi: 10.1212/WNL.0000000000010090. Epub 2020 Jul 17. PubMed PMID: 32680949; PubMed Central PMCID: PMC7605505.
25. Callaghan BC, **Reynolds E**, Banerjee M, Chant E, Villegas-Umana E, Feldman EL. Central Obesity is Associated With Neuropathy in the Severely Obese. *Mayo Clin Proc*. 2020 Jul;95(7):1342-1353. doi: 10.1016/j.mayocp.2020.03.025. PubMed PMID: 32622444; PubMed Central PMCID: PMC7340115.
26. **Reynolds EL**, Burke JF, Banerjee M, Callaghan BC. Randomized controlled trial of a clinical decision support system for painful polyneuropathy. *Muscle Nerve*. 2020 May;61(5):640-644. doi: 10.1002/mus.26774. Epub 2019 Dec 18. PubMed PMID: 31811650.
27. **Reynolds EL**, Burke JF, Banerjee M, Kerber KA, Skolarus LE, Magliocco B, Esper GJ, Callaghan BC. Association of out-of-pocket costs on adherence to common neurologic medications. *Neurology*. 2020 Mar 31;94(13):e1415-e1426. doi: 10.1212/WNL.0000000000009039. Epub 2020 Feb 19. PubMed PMID: 32075894; PubMed Central PMCID: PMC7274913.
28. Callaghan BC, **Reynolds EL**, Banerjee M, Chant E, Villegas-Umana E, Gardner TW, Votruba K, Giordani B, Pop-Busui R, Pennathur S, Feldman EL. The Prevalence and Determinants of Cognitive Deficits and Traditional Diabetic Complications in the Severely Obese. *Diabetes Care*. 2020 Mar;43(3):683-690. doi: 10.2337/dc19-1642. Epub 2020 Jan 13. PubMed PMID: 31932459; PubMed Central PMCID: PMC7035591.
29. Dupuis JE, Li J, Callaghan BC, **Reynolds EL**, London ZN. Bilateral nerve conduction studies in the evaluation of distal symmetric polyneuropathy. *Muscle Nerve*. 2019 Sep;60(3):305-307. doi: 10.1002/mus.26616. Epub 2019 Jul 2. PubMed PMID: 31228276.
30. **Reynolds E**, Callaghan B, Banerjee M. SVM-CART for Disease Classification. *J Appl Stat*. 2019;46(16):2987-3007. doi: 10.1080/02664763.2019.1625876. Epub 2019 Jun 7. PubMed PMID: 33012942; PubMed Central PMCID: PMC7531767.
31. Callaghan BC, **Reynolds E**, Banerjee M, Kerber KA, Skolarus LE, Magliocco B, Esper GJ, Burke JF. Out-of-pocket costs are on the rise for commonly prescribed neurologic medications. *Neurology*. 2019 May 28;92(22):e2604-e2613. doi: 10.1212/WNL.0000000000007564. Epub 2019 May 1. PubMed PMID: 31043472; PubMed Central PMCID: PMC6556089.
32. Banerjee M, **Reynolds E**, Andersson HB, Nallamothu BK. Tree-Based Analysis. *Circ Cardiovasc Qual Outcomes*. 2019 May;12(5):e004879. doi: 10.1161/CIRCOUTCOMES.118.004879. Review. PubMed PMID: 31043064; PubMed Central PMCID: PMC6555420.
33. Callaghan BC, **Reynolds E**, Banerjee M, Kerber KA, Skolarus LE, Burke JF. Longitudinal pattern of pain medication utilization in peripheral neuropathy patients. *Pain*. 2019 Mar;160(3):592-599. doi: 10.1097/j.pain.0000000000001439. PubMed PMID: 30418352; PubMed Central PMCID: PMC6377284.

34. Ebricht MJ, Li SH, **Reynolds E**, Burke JF, Claytor BR, Grisold A, Banerjee M, Callaghan BC. Unintended consequences of Mayo paraneoplastic evaluations. *Neurology*. 2018 Nov 27;91(22):e2057-e2066. doi: 10.1212/WNL.0000000000006577. Epub 2018 Oct 26. PubMed PMID: 30366974; PubMed Central PMCID: PMC6282240.
35. NeCamp T, Morris E, **Reynolds EL**, Salerno S. Data for Good In Your Neighborhood: A case study on how data can benefit your local community. Bloomberg Data for Good Exchange Conference. 2018 September.
36. Callaghan BC, Gao L, Li Y, Zhou X, **Reynolds E**, Banerjee M, Pop-Busui R, Feldman EL, Ji L. Diabetes and obesity are the main metabolic drivers of peripheral neuropathy. *Ann Clin Transl Neurol*. 2018 Apr;5(4):397-405. doi: 10.1002/acn3.531. eCollection 2018 Apr. PubMed PMID: 29687018; PubMed Central PMCID: PMC5899909.
37. **Reynolds EL**, NeCamp T. STATCOM: Revitalization of Statistical Community Service at Universities. *AMSTAT news: the membership magazine of the American Statistical Association*. 2018 April; (490):22.
38. Callaghan BC, Xia R, **Reynolds E**, Banerjee M, Burant C, Rothberg A, Pop-Busui R, Villegas-Umana E, Feldman EL. Better diagnostic accuracy of neuropathy in obesity: A new challenge for neurologists. *Clin Neurophysiol*. 2018 Mar;129(3):654-662. doi: 10.1016/j.clinph.2018.01.003. Epub 2018 Jan 16. PubMed PMID: 29414409; PubMed Central PMCID: PMC5808853.
39. Healy MA, **Reynolds E**, Banerjee M, Wong SL. Lymph Node Ratio Is Less Prognostic in Melanoma When Minimum Node Retrieval Thresholds Are Not Met. *Ann Surg Oncol*. 2017 Feb;24(2):340-346. doi: 10.1245/s10434-016-5473-z. Epub 2016 Aug 5. PubMed PMID: 27495278.
40. Callaghan BC, Xia R, **Reynolds E**, Banerjee M, Rothberg AE, Burant CF, Villegas-Umana E, Pop-Busui R, Feldman EL. Association Between Metabolic Syndrome Components and Polyneuropathy in an Obese Population. *JAMA Neurol*. 2016 Dec 1;73(12):1468-1476. doi: 10.1001/jamaneurol.2016.3745. PubMed PMID: 27802497; PubMed Central PMCID: PMC5217829.
41. Massie JP, **Reynolds EL**, Koestler BJ, Cong JP, Agostoni M, Waters CM. Quantification of high-specificity cyclic diguanylate signaling. *Proc Natl Acad Sci U S A*. 2012 Jul 31;109(31):12746-51. doi: 10.1073/pnas.1115663109. Epub 2012 Jul 16. PubMed PMID: 22802636; PubMed Central PMCID: PMC3411991.

PRESENTATIONS AND POSTERS

Presentations

1. **Reynolds, E.** "Cost and Utilization of Health Care Services for Persons with Diabetes". American Diabetes Association Scientific Sessions. San Diego, CA. June 25, 2023.
2. **Reynolds, E.** "The association between longitudinal metabolic trajectories and peripheral neuropathy". Peripheral Nerve Society Annual Meeting. Copenhagen, Denmark. June 19, 2023.
3. **Reynolds, E.** "Impact of mental health disorders and cognitive disorders on utilization of healthcare services for persons with diabetes", 2023 Caswell Diabetes Institute Metabolism, Obesity & Diabetes Symposium. Ann Arbor, MI. May 18, 2023.
4. **Reynolds, E.** "Impact of mental health disorders and cognitive disorders on utilization of healthcare services for persons with diabetes", 2023 JDRF Center of Excellence Trainee Symposium. Ann Arbor, MI. May 17, 2023.
5. **Reynolds, E.** "Predicting, preventing, and reversing diabetes complications: the role of diabetes, obesity, and the metabolic syndrome", 2023 Michigan Institute for Data Science Future Leaders Summit. Ann Arbor, MI. April 13, 2023. *Invited*.
6. **Reynolds, E.** "Predicting, preventing, and reversing diabetes complications: the role of diabetes, obesity, and the metabolic syndrome", Michigan State University Department of Epidemiology and Biostatistics Seminar Series. East Lansing, MI. March 3, 2023. *Invited*.
7. **Reynolds, E.** "The effect of surgical weight loss on diabetes complications in the severely obese", American Diabetes Association Scientific Sessions. New Orleans, LA. June 4, 2022.
8. **Reynolds, E.** "The effect of surgical weight loss on neuropathy in the severely obese", Peripheral Nerve Society Annual Meeting. Miami, FL. May 15, 2022.
9. **Reynolds, E.** "The effect of surgical weight loss on neuropathy in the severely obese". 2022 Caswell Diabetes Institute Metabolism, Obesity and Diabetes Symposium (CDI-MOD) and Frontiers in Diabetes Complications Conference. Ann Arbor, MI. May 11-12, 2022.
10. **Reynolds, E.** "Neuropsychological Outcomes in Individuals with Type 1 and Type 2 Diabetes" Feldman Lab Meeting. Ann Arbor, MI. March 18th, 2022.
11. **Reynolds, E.** "Predicting, Preventing, and Reversing Diabetic Complications: The role of diabetes, obesity, and the metabolic syndrome". University of Michigan Feldman Lab Retreat. December 2nd, 2021. *Invited*.
12. **Reynolds, E.** "The effect of surgical and diet induced weight loss on neuropathy in the severely obese". University of Michigan Neuroscience Seminar. November 11th, 2021. *Invited*.
13. **Reynolds, E.** "Statistical Solutions for Scientists II". Feldman Lab Meeting. Ann Arbor MI. June 18th, 2021
14. **Reynolds, E.** "The association between the metabolic syndrome and traditional diabetic complications in the severely obese" 7th Annual Neurobiology of Disease Symposium. Ann Arbor, MI. May 5th, 2021.

15. **Reynolds, E.** “Associations between Cognition, Brain Morphology, Diabetic Complications and the Metabolic Syndrome in the Pima Indians of Arizona”. University of Michigan Feldman Lab Retreat. November 6th, 2020. *Invited.*
16. **Reynolds E.** “A machine learning based approach to predict extubation failure using multiple EHR in tandem”. 2020 IMS/ASA Spring Research Conference . *May 20-22, 2020. Rochester MI. Invited.*
17. **Reynolds, E.** “The association between the metabolic syndrome and traditional diabetic complications in the severely obese”. University of Michigan Neuroscience Seminar. March 6, 2020. *Invited.*
18. **Reynolds, E.** “Statistical methods and solutions for scientists: Part 1”. University of Michigan Feldman Lab Meeting. February 28, 2020. *Invited.*
19. **Reynolds, E.** “The longitudinal determinants of diabetic complications in the Pima Indians of Arizona”. University of Michigan Feldman Lab Retreat. December 9, 2019. *Invited.*
20. **Reynolds, E.** “Statistical Learning Methods for EHR Data”. University of Michigan Feldman Lab Meeting. January 18, 2019. *Invited.*
21. NeCamp T., Morris E., **Reynolds E.** and Salerno S. “Data for Good in Your Neighborhood: A case study on how data can benefit your local community”. Bloomberg Data for Good Exchange. New York, NY. September 16, 2018.
22. **Reynolds E.,** Callaghan B. and Banerjee M. “SVM-CART for Disease Classification”. The Joint International Society for Clinical Biostatistics. Melbourne, AUS. August 27th, 2018. *Not Presented.*
23. **Reynolds E.,** Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. Joint Statistical Meeting. Vancouver, BC. August 2018.
24. **Reynolds E.,** Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. Symposium on Data Science and Statistics. Reston, VA. May 18, 2018.
25. Rooney S., **Reynolds E.,** Banerjee M., Pasquali S. and Gaies M. “Prediction of Extubation Failure in the Pediatric Cardiac ICU Using Continuously Streamed Physiologic Data and Machine Learning”. Sarnoff Cardiovascular Research Foundation 38th Annual Scientific Meeting. May 3, 2018. *Not Presented.*
26. **Reynolds E.,** Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. University of Michigan Quantitative Methods for Health Services Researchers. Ann Arbor, MI. April 17, 2018. *Invited*
27. **Reynolds E.,** NeCamp T., Salerno S., Morris, E., Conrado I. and Chandranu S. “STATCOM: Statistics in the Community at the University of Michigan”. University of Michigan Biostatistics Graduate Student Working Group Seminar. Ann Arbor, MI. April 2018. *Invited*
28. **Reynolds E.,** Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. University of Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. April 2, 2018.
29. **Reynolds E.,** Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. ENAR. Atlanta, GA. March 24, 2018.
30. **Reynolds E.,** Callaghan B. and Banerjee M. “SVM-CART for Disease Classification”. University of Michigan Statistics Graduate Student Seminar. Ann Arbor, MI. September 13, 2017. *Invited*
31. **Reynolds E.,** Callaghan B. and Banerjee M. “SVM-CART for Disease Classification”. Joint Statistical Meeting. Baltimore, MD. July 30, 2017.
32. **Reynolds E.,** Callaghan B. and Banerjee M. “SVM-CART for Disease Classification”. University of Michigan Quantitative Methods for Health Services Researchers. Ann Arbor, MI. May 17, 2017. *Invited*
33. **Reynolds E.,** Callaghan B. and Banerjee M. “SVM-CART for Disease Classification”. University of Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. March 24, 2017.

Posters

1. **Reynolds, E.** “Impact of mental health disorders and cognitive disorders on utilization of healthcare services for persons with diabetes”, 2023 Caswell Diabetes Institute Metabolism, Obesity & Diabetes Symposium. Ann Arbor, MI. May 18, 2023.
2. **Reynolds, E.** “The effect of surgical weight loss on diabetes complications in the severely obese”, American Diabetes Association Scientific Sessions. New Orleans, LA. June 4, 2022.
3. **Reynolds, E.** “The effect of surgical weight loss on neuropathy in the severely obese”, Peripheral Nerve Society Annual Meeting. Miami, FL. May 15, 2022.
4. **Reynolds, E.** “The effect of surgical weight loss on neuropathy in the severely obese”. 2022 Caswell Diabetes Institute Metabolism, Obesity and Diabetes Symposium (CDI-MOD) and Frontiers in Diabetes Complications Conference. Ann Arbor, MI. May 11-12, 2022.
5. **Reynolds, E.** “Dietary weight loss may halt progression of polyneuropathy in patients with obesity”. University of Michigan Neuroscience Day. Ann Arbor MI. June 9, 2021.
6. **Reynolds E.,** Hill C., Kerber K., Burke J., Callaghan B. “Long-Term Impact of the Medicare Reimbursement Changes for IOM” Academy Health Annual Research Meeting. June 13-16, 2020. Virtual.
7. **Reynolds E.,** Nelson R., Akinci G., Henn R., Patterson A., Feldman E., Callaghan B. “The longitudinal determinants of diabetic complications in the Pima Indians of Arizona” University of Michigan Neuroscience Day. Ann Arbor, MI. June 17th 2020. Virtual.

8. **Reynolds E.**, Nelson R., Akinci G., Henn R., Patterson A., Feldman E., Callaghan B. “The longitudinal determinants of diabetic complications in the Pima Indians of Arizona” American Diabetes Association 80th Scientific Sessions. June 12-16, 2020. Virtual.
9. Henn R., **Reynolds E.**, Nelson R., Patterson A., Feldman E., Callaghan B. “Metabolic Factors Associated with Brain Morphology and Cognitive Function in Type 2 Diabetes Patients” American Diabetes Association 80th Scientific Sessions. June 12-16, 2020. Virtual.
10. **Reynolds E.**, Burke J., Banerjee M. and Callaghan B. “Effect of out of pocket cost on adherence to common neurologic medications”. University of Michigan Institute for Healthcare Policy and Innovation Member Forum. January 24, 2019.
11. **Reynolds E.**, Callaghan B., Gaeis M. and Banerjee M. “Regression Trees and Ensemble Methods for Multivariate Outcomes”. Michigan Institute for Data Science Annual Symposium. Ann Arbor, MI. October 8, 2018.
12. NeCamp T., Morris E., **Reynolds E.** and Salerno S. “Data for Good in Your Neighborhood: A case study on how data can benefit your local community”. Michigan Institute for Data Science Annual Symposium. Ann Arbor, MI. October 8, 2018.
13. Beriont, L. NeCamp, T. **Reynolds, E.**, Salerno, S. and Savas SA. “Assessing Quality of Life of Older Adults in Washtenaw County”. Michigan Institute for Data Science Annual Symposium. Ann Arbor, MI. October 8, 2018.
14. **Reynolds E.**, NeCamp T., Salerno S., Morris, E., Conrado I. and Chandranu S. “STATCOM: Statistics in the Community at the University of Michigan”. Michigan Institute for Data Science Annual Symposium. Ann Arbor, MI. October 8, 2018.
15. Beriont, L. NeCamp, T. **Reynolds, E.**, Salerno, S. and Savas SA. “Quality of Life for Adults 60+ in Washtenaw County”. Michigan Association for Evaluation Annual Conference. Lansing, MI. May 10th, 2018.
16. **Reynolds E.**, NeCamp T., Salerno S., Morris, E., Conrado I. and Chandranu S. “STATCOM: Statistics in the Community at the University of Michigan”. University of Michigan Data for Public Good Symposium. Ann Arbor, MI. April 13th, 2018.
17. Beriont, L. NeCamp, T. **Reynolds, E.**, Salerno, S. and Savas SA. “Quality of Life for Adults 60+ in Washtenaw County”. University of Michigan Data for Public Good Symposium. Ann Arbor, MI. April 13th, 2018.
18. **Reynolds E.**, NeCamp T., Salerno S., Morris, E., Conrado I. and Chandranu S. “STATCOM: Statistics in the Community at the University of Michigan”. University of Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. April 3, 2018.
19. **Reynolds E.**, NeCamp T., Salerno S., Morris, E., Conrado I. and Chandranu S. “STATCOM: Statistics in the Community at the University of Michigan”. University of Michigan 2017 Data Science Research Forum. Ann Arbor, MI. December 1, 2017. *Invited.*
20. Callaghan B., **Reynolds E.**, Banerjee M., Villegas-Umana E., Averill S. and Feldman E. “The association between the metabolic syndrome and neurologic outcomes in a bariatric surgery population”. Michigan Diabetes Research Center Annual Diabetes Symposium. Ann Arbor, MI. March 2017.
21. Callaghan B., **Reynolds E.**, Banerjee M., Villegas-Umana E., Averill S. and Feldman E. “The association between the metabolic syndrome and neurologic outcomes in a bariatric surgery population”. Michigan Diabetes Research Center Annual Diabetes Symposium. Ann Arbor, MI. March 2016
22. Massie, J., **Reynolds, E.**, Koestler, B., Cong, J., Agostoni, M., and Waters C. . “Quantification of cyclic di-GMP Signaling Specificity the Pathogen *Vibrio cholera*”. University Undergraduate Research and Arts Forum. East Lansing, MI, April 13, 2012

PROFESSIONAL SOCIETY MEMBERSHIP

2022	Peripheral Nerve Society
2022	American Neurological Association
2020	American Diabetes Association
2019	University of Michigan Postdoctoral Association
2019	University of Michigan Institute for Data Science Staff Data Scientist Group
2019	University of Michigan Applied Biostatistical Sciences Network
2017 - 2019	International Biometric Society: Eastern North American Region
2016	American Statistical Association

MENTORSHIP

2019-2021	Nathaniel Putnam, PhD Student, Department of Biostatistics, University of Michigan
2021-2023	Maya Watanabe, M.S. Student, Department of Biostatistics, University of Michigan
2022-	Dae-Gyu Jang, Postdoctoral Research Fellow, NeuroNetwork for Emerging Therapies, University of Michigan
2023-	Lavanya Muthukumar, Statistician, NeuroNetwork for Emerging Therapies, University of Michigan