

# Nicholas J. Seewald, Ph.D.

## Curriculum Vitae

✉ [seewaldn@pennmedicine.upenn.edu](mailto:seewaldn@pennmedicine.upenn.edu) 🗂 [nickseewald.com](http://nickseewald.com) 📱 [nickseewald](https://www.linkedin.com/in/nickseewald/)

### Professional Data

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Department of Biostatistics, Epidemiology, and Informatics  
University of Pennsylvania Perelman School of Medicine  
624 Blockley Hall  
423 Guardian Drive  
Philadelphia, PA 19104

### Education

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#### **University of Michigan**, Ann Arbor, MI.

Ph.D. Statistics	2021
<i>Design and analytic considerations for sequential, multiple-assignment randomized trials with continuous longitudinal outcomes.</i> Advised by Daniel Almirall, Ph.D.	
<a href="https://doi.org/n4r2">doi.org/n4r2</a>	

M.A. Statistics	2018
M.S. Biostatistics	2015

#### **University of Notre Dame**, Notre Dame, IN.

B.S. Mathematics (with Life Science), <i>cum laude</i>	2013
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### Faculty & Research Positions

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#### **University of Pennsylvania**, Philadelphia, PA.

Senior Scholar, Center for Clinical Epidemiology and Biostatistics	2025 - Present
Assistant Professor of Biostatistics	2023 - Present

#### **Johns Hopkins Bloomberg School of Public Health**, Baltimore, MD.

Postdoctoral Fellow, Department of Health Policy and Management	2021-2023
Advised by Elizabeth A. Stuart, Ph.D. and Emma E. (Beth) McGinty, Ph.D.	

### Awards

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7. Excellence in Teaching. Johns Hopkins Bloomberg School of Public Health, AY 2022-23, First Term.
6. Junior Researcher Travel Grant, American Causal Inference Conference, 2022. Supported by the National Science Foundation, awarded to Duke University.

5. Brenda Gunderson Graduate Student Instructor Award. Department of Statistics, University of Michigan, 2021. (Inaugural recipient)
4. Outstanding Graduate Student Instructor. Rackham Graduate School, University of Michigan, 2021. (University-wide)
3. Outstanding Graduate Student Instructor. Department of Statistics, University of Michigan, 2020.
2. Best Departmental Poster, Statistics. Michigan Student Symposium for Interdisciplinary Statistical Sciences, 2017.
1. Best Departmental Poster, Biostatistics. Michigan Student Symposium for Interdisciplinary Statistical Sciences, 2015.

## Publications

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\* denotes trainee with significant mentoring.

### Peer-Reviewed Articles

24. Till JE, Gal-Rosenberg O, Giliberto SG, **Seewald NJ**, Ballinger DG, Samberg HE, Yin MR, Wang QL, Cannas, Samuele, Kim KN, Tien K, Sawi M, Madineedi V, Furniss CS, Gocheva V, Nowak J, Brais LK, Yuan C, Rosenthal MH, Roses R, DeMatteo R, Lee MK, Vollmer C, Sagreiya H, O'Hara MH, Shemer R, Wolpin B, Dor Y, and Carpenter EL. "Plasma Cell-Free DNA Markers Predict Occult Metastases in Patients with Resectable Pancreatic Ductal Adenocarcinoma". *Clinical and Translational Medicine* (2025). DOI: [10.1002/ctm2.70573](https://doi.org/10.1002/ctm2.70573). Forthcoming.
23. \*Moin EE, Bennett RM, Purcell M, Moffett AT, Schmid B, Long K, **Seewald NJ**, Reilly JP, and Weissman GE. "Waveform Data Capture Substantial Variation in Tidal Volume and Other Respiratory Parameters". *Annals of the American Thoracic Society* (2025). Forthcoming.
22. Stone EM, **Seewald NJ**, and Rosen JG. "Impact of Medicaid Expansion on HIV Pre-Exposure Prophylaxis Coverage, 2012–23". *Health Affairs* 44.10 (2025), pp. 1266–1272. DOI: [10.1377/hlthaff.2025.00211](https://doi.org/10.1377/hlthaff.2025.00211).
21. McGinty EE, Wagle P, Luo CL, **Seewald NJ**, Stuart EA, and Tormohlen KN. "The Impact of Medical Cannabis Laws on Cannabis and Opioid Use Disorder Treatment and Overdose-Related Health Care Utilization among Adults with Chronic Noncancer Pain". *Milbank Quarterly* (2025), pp. 1–24. DOI: [10.1111/1468-0009.70052](https://doi.org/10.1111/1468-0009.70052).
20. Anbil S, **Seewald NJ**, Chiorean EG, Hussein M, Kasi PM, Laux DE, Schwartz GK, Shapiro GI, Lin KK, Craib M, Maloney L, McLachlan K, Tukachinsky H, Schrock AB, Wang S, Sokol ES, Decker B, Nathanson KL, Domchek SM, and Reiss KA. "LODESTAR: A Single-Arm Phase II Study of Rucaparib in Solid Tumors with Pathogenic Germline or Somatic Variants in Homologous Recombination Repair Genes". *JCO Precision Oncology* 9 (2025), e2500090. DOI: [10.1200/P0-25-00090](https://doi.org/10.1200/P0-25-00090).
19. Hamm RF, Mumford SL, Forkpa M, **Seewald NJ**, Beidas RS, Srinivas SK, Parry S, and Levine LD. "The Impact of Implementing a Standardized Protocol for Labor Induction on Obstetric Disparities: Secondary Analysis of a Type I Hybrid Effectiveness-Implementation Trial". *Pregnancy* 1.4 (2025), e70077. DOI: [10.1002/pmf2.70077](https://doi.org/10.1002/pmf2.70077).

18. \*Moin EE, **Seewald NJ**, and Halpern SD. "Use of Life Support and Outcomes among Patients Admitted to Intensive Care Units". *JAMA* 333.20 (2025), pp. 1793–1803. DOI: [10.1001/jama.2025.2163](https://doi.org/10.1001/jama.2025.2163).
17. Till JE, **Seewald NJ**, Yazdani Z, Wang Z, Ballinger D, Samberg H, Dandu S, Macia C, Yin M, Abdalla A, Prior T, Shah SS, Patel T, McCoy E, Mansour M, Wills CA, Bochenek V, Serrano J, Snuderl M, Phillips RE, O'Rourke DM, Amankulor NM, Nabavizadeh A, Desai AS, Gollomp K, Binder ZA, Zhou W, Bagley SJ, and Carpenter EL. "Corticosteroid-Dependent Association between Prognostic Peripheral Blood Cell-Free DNA Levels and Neutrophil-Mediated NETosis in Patients with Glioblastoma". *Clinical Cancer Research* 31.7 (2025), pp. 1292–1304. DOI: [10.1158/1078-0432.CCR-24-3169](https://doi.org/10.1158/1078-0432.CCR-24-3169).
16. Stone EM, Jopson AD, **Seewald NJ**, Stuart EA, Wise E, McCourt AD, German D, and McGinty EE. "Effects of Texas State Agency Integration on Mental Health Service Use among Individuals with Co-Occurring Cognitive Disabilities and Mental Health Conditions". *Community Mental Health Journal* 61 (2025), pp. 111–121. DOI: [10.1007/s10597-024-01332-0](https://doi.org/10.1007/s10597-024-01332-0).
15. **Seewald NJ**, McGinty EE, and Stuart EA. "Target Trial Emulation for Evaluating Health Policy". *Annals of Internal Medicine* (2024). DOI: [10.7326/M23-2440](https://doi.org/10.7326/M23-2440).
14. McGinty EE, Tormohlen KN, **Seewald NJ**, Bicket MC, McCourt AD, Rutkow L, White SA, and Stuart EA. "Effects of U.S. State Medical Cannabis Laws on Treatment of Chronic Noncancer Pain". *Annals of Internal Medicine* 176.7 (2023), pp. 904–912. DOI: [10.7326/M23-0053](https://doi.org/10.7326/M23-0053).
13. McGinty EE, **Seewald NJ**, Bandara S, Cerdá M, Daumit GL, Eisenberg MD, Griffin BA, Igusa T, Jackson JW, Kennedy-Hendricks A, Marsteller J, Miech EJ, Purtle J, Schmid I, Schuler MS, Yuan CT, and Stuart EA. "Scaling Interventions to Manage Chronic Disease: Innovative Methods at the Intersection of Health Policy Research and Implementation Science". *Prevention Science* (2022). DOI: [10.1007/s11121-022-01427-8](https://doi.org/10.1007/s11121-022-01427-8).
12. McGinty EE, Bicket MC, **Seewald NJ**, Stuart EA, Alexander GC, Barry CL, McCourt AD, and Rutkow L. "Effects of State Opioid Prescribing Laws on Use of Opioid and Other Pain Treatments among Commercially Insured U.S. Adults". *Annals of Internal Medicine* 175.5 (2022), pp. 617–627. DOI: [10.7326/M21-4363](https://doi.org/10.7326/M21-4363).
11. **Seewald NJ**, Kidwell KM, Nahum-Shani I, Wu T, McKay JR, and Almirall D. "Sample Size Considerations for Comparing Dynamic Treatment Regimens in a Sequential Multiple-Assignment Randomized Trial with a Continuous Longitudinal Outcome". *Statistical Methods in Medical Research* 29.7 (2020), pp. 1891–1912. DOI: [10/gf85ss](https://doi.org/10/gf85ss).
10. **Seewald NJ**, Smith SN, Lee AJ, Klasnja P, and Murphy SA. "Practical Considerations for Data Collection and Management in Mobile Health Micro-Randomized Trials". *Statistics in Biosciences* 11 (2019), pp. 355–370. DOI: [10/gfsvx7](https://doi.org/10/gfsvx7).
9. Kidwell KM, **Seewald NJ**, Tran Q, Kasari C, and Almirall D. "Design and Analysis Considerations for Comparing Dynamic Treatment Regimens with Binary Outcomes from Sequential Multiple Assignment Randomized Trials". *Journal of Applied Statistics* 45.9 (2018), pp. 1628–1651. DOI: [10/hh5r](https://doi.org/10/hh5r).
8. Klasnja P, Smith S, **Seewald NJ**, Lee A, Hall K, Luers B, Hekler EB, and Murphy SA. "Efficacy of Contextually Tailored Suggestions for Physical Activity: A Micro-Randomized Optimization Trial of HeartSteps". *Annals of Behavioral Medicine* (2018), p. 10. DOI: [10.1093/abm/kay067](https://doi.org/10.1093/abm/kay067).

7. Kadakia KC, Kidwell KM, **Seewald NJ**, Snyder CF, Storniolo AM, Otte JL, Flockhart DA, Hayes DF, Stearns V, and Henry NL. “Prospective Assessment of Patient-Reported Outcomes and Estradiol and Drug Concentrations in Patients Experiencing Toxicity from Adjuvant Aromatase Inhibitors”. *Breast Cancer Research and Treatment* 164.2 (2017), pp. 411–419. DOI: [10.1007/S10549-017-4260-2](https://doi.org/10.1007/S10549-017-4260-2).
6. Meurer WJ, **Seewald NJ**, and Kidwell K. “Sequential Multiple Assignment Randomized Trials: An Opportunity for Improved Design of Stroke Reperfusion Trials”. *Journal of Stroke and Cerebrovascular Diseases* 26.4 (2017), pp. 717–724. DOI: [10.1016/j.jstrokecerebrovasdis.2016.09.010](https://doi.org/10.1016/j.jstrokecerebrovasdis.2016.09.010).
5. Kadakia KC, Snyder CF, Kidwell KM, **Seewald NJ**, Flockhart DA, Skaar TC, Desta Z, Rae JM, Otte JL, Carpenter JS, Storniolo AM, Hayes DF, Stearns V, and Henry NL. “Patient-Reported Outcomes and Early Discontinuation in Aromatase Inhibitor-Treated Postmenopausal Women with Early Stage Breast Cancer”. *The Oncologist* 21.5 (2016), pp. 539–546. DOI: [10.1634/theoncologist.2015-0349](https://doi.org/10.1634/theoncologist.2015-0349). PMID: [27009936](#).
4. Hertz DL, Caram MV, Kidwell KM, Thibert JN, Gersch C, **Seewald NJ**, Smerage J, Rubenfire M, Henry NL, Cooney KA, Leja M, Griggs JJ, and Rae JM. “Evidence for Association of SNPs in ABCB1 and CBR3, but Not RAC2, NCF4, SLC28A3 or TOP2B, with Chronic Cardiotoxicity in a Cohort of Breast Cancer Patients Treated with Anthracyclines.” *Pharmacogenomics* 17.3 (2016), pp. 231–240. DOI: [10.2217/pgs.15.162](https://doi.org/10.2217/pgs.15.162). PMID: [26799497](#).
3. Hertz DL, Kidwell KM, **Seewald NJ**, Gersch CL, Desta Z, Flockhart DA, Storniolo AM, Stearns V, Skaar TC, Hayes DF, Henry NL, and Rae JM. “Polymorphisms in Drug-Metabolizing Enzymes and Steady-State Exemestane Concentration in Postmenopausal Patients with Breast Cancer”. *The Pharmacogenomics Journal* (November 2015 2016), pp. 1–7. DOI: [10.1038/tpj.2016.60](https://doi.org/10.1038/tpj.2016.60).
2. Randolph AH, **Seewald NJ**, Rickert K, and Brown SN. “Tris (3,5-Di-Tert-Butylcatecholato) Molybdenum(VI): Lewis Acidity and Nonclassical Oxygen Atom Transfer Reactions.” *Inorganic chemistry* 52.21 (2013), pp. 12587–98. DOI: [10.1021/ic401736f](https://doi.org/10.1021/ic401736f). PMID: [24147870](#).
1. Marshall-Roth T, Liebscher SC, Rickert K, **Seewald NJ**, Oliver AG, and Brown SN. “Nonclassical Oxygen Atom Transfer Reactions of Oxomolybdenum(VI) Bis(Catecholate)”. *Chemical Communications* 48.63 (2012), pp. 7826–7828. DOI: [10.1039/c2cc33523a](https://doi.org/10.1039/c2cc33523a). PMID: [22785616](#).

## Peer-Reviewed Book Chapters

3. Smith SN, **Seewald NJ**, and Klasnja P. “Design Considerations for Preparation, Optimization, and Evaluation of Digital Therapeutics”. *Digital Therapeutics for Mental Health and Addiction*. Ed. by Jacobson N, Marsch L, Kowatsch T. Academic Press, 2023, pp. 135–150. DOI: [10.1016/B978-0-323-90045-4.00015-0](https://doi.org/10.1016/B978-0-323-90045-4.00015-0).
2. **Seewald NJ**, Hackworth O, and Almirall D. “Sequential, Multiple Assignment, Randomized Trials (SMART)”. *Principles and Practice of Clinical Trials*. Ed. by Piantadosi S, Meinert CL. Cham: Springer International Publishing, 2021, pp. 1–19. DOI: [10.1007/978-3-319-52677-5\\_280-1](https://doi.org/10.1007/978-3-319-52677-5_280-1).

- Smith SN, Lee AJ, Hall K, **Seewald NJ**, Boruvka A, Murphy SA, and Klasnja P. "Design Lessons from a Micro-Randomized Pilot Study in Mobile Health". *Mobile Health*. Ed. by Rehg JM, Murphy SA, Kumar S. Cham: Springer International Publishing, 2017, pp. 59–82. DOI: [10.1007/978-3-319-51394-2\\_4](https://doi.org/10.1007/978-3-319-51394-2_4).

## Conference Proceedings

- \*Taranto E, **Seewald NJ**, Bayne LJ, Walinsky E, Deluca S, Shih NN, Sanchez P, Nivar I, Ambasager B, Murray C, Chevalier A, Smith CG, Makhlin I, Rohn K, Goodspeed BL, Savage J, Wileyto P, Wang J, Belka G, Chislock E, Berry LR, Berry D, Nayak A, Feldman M, Clark AS, Chodosh LA, and DeMichele A. "Circulating Tumor DNA (ctDNA), Dormant Disseminated Tumor Cells (DTCs) and Recurrence Outcomes in Breast Cancer Survivors on the SURMOUNT Study". *Clinical Cancer Research*. San Antonio Breast Cancer Symposium 2024. Vol. 31. San Antonio, TX: AACR, 2025, PS9–03. DOI: [10.1158/1557-3265.SABCS24-PS9-03](https://doi.org/10.1158/1557-3265.SABCS24-PS9-03).
- \*Moin EE, **Seewald NJ**, and Halpern SD. "Characteristics and Prognosis of Patients Experiencing Recurrent ICU Admissions". *American Journal of Respiratory and Critical Care Medicine*. American Thoracic Society, 2025. DOI: [10.1164/ajrccm.2025.211.Abstracts.A7371](https://doi.org/10.1164/ajrccm.2025.211.Abstracts.A7371).
- \*Moin EE, **Seewald NJ**, Halpern SD, and Auriemma CL. "Measurement Error in Hospital-Free Days after Prolonged Acute Mechanical Ventilation". *American Journal of Respiratory and Critical Care Medicine*. American Thoracic Society, 2025. DOI: [10.1164/ajrccm.2025.211.Abstracts.A7792](https://doi.org/10.1164/ajrccm.2025.211.Abstracts.A7792).
- O'Leary C, Tischfield D, Avritscher R, El-Haddad G, Fidelman N, Garcia-Monaco R, Vijayvergia N, Kunz P, **Seewald N**, and Soulen MC. "Does Liver Tumor Morphology Predict Outcomes after LDT, PRRT or Captem?" *Endocrine Abstracts*. 17th Annual Multidisciplinary NET Medical Symposium NANETS 2024. Vol. 108. Chicago, IL: Bioscientifica, 2025. DOI: [10.1530/endoabs.108.C25](https://doi.org/10.1530/endoabs.108.C25).
- \*Mayer M, **Seewald N**, Perez EU, Homet Moreno B, Ramamurthy C, Babcock A, Li H, and Mamani R. "Real-World Time on Treatment (rwTOT) with First-Line (1L) Enfortumab Vedotin and Pembrolizumab (EV+P) after U.S. Food and Drug Administration Approval for Advanced Urothelial Cancer (aUC)". *Journal of Clinical Oncology*. 2025 ASCO Genitourinary Cancers Symposium. Vol. 43. Wolters Kluwer, 2025, pp. 731–731. DOI: [10.1200/JCO.2025.43.5\\_suppl.731](https://doi.org/10.1200/JCO.2025.43.5_suppl.731).
- Anbil S, **Seewald NJ**, Lin K, Craib M, Connor C, Giordano H, McLachlan K, Kwan T, Maloney L, Tukachinsky H, Schrock A, Wang S, Sokol E, Decker B, Nathanson K, Domchek S, and Reiss K. "LODESTAR: A Single Arm Phase II Study of Rucaparib in Solid Tumors with Pathogenic Germline or Somatic Variants in Homologous Recombination Repair (HRR) Genes". *Cancer Research*. AACR Special Conference in Cancer Research: Advances in Pancreatic Cancer Research. Vol. 84. Boston, MA: AACR, 2024, p. C006. DOI: [10.1158/1538-7445.PANCREATIC24-C006](https://doi.org/10.1158/1538-7445.PANCREATIC24-C006).
- Hood R, Rathore S, **Seewald NJ**, and Reiss KA. "Association of BRCA1/2 Pathogenic Variants with Primary Tumor Location and Metastatic Organotropism in Pancreatic Adenocarcinoma." *Journal of Clinical Oncology*. 2024 ASCO Annual Meeting. Vol. 42. Chicago, IL: Wolters Kluwer, 2024, pp. 4151–4151. DOI: [10.1200/JCO.2024.42.16\\_suppl.4151](https://doi.org/10.1200/JCO.2024.42.16_suppl.4151).

5. Hood R, **Seewald NJ**, Rathore S, and Reiss KA. "Interaction of BRCA1 vs BRCA2 Pathogenic Variants with Primary Tumor Location in Pancreatic Cancer." *Journal of Clinical Oncology*. 2024 ASCO Annual Meeting. Vol. 42. Chicago, IL: Wolters Kluwer, 2024, e16326–e16326. DOI: [10.1200/JCO.2024.42.16\\_suppl.e16326](https://doi.org/10.1200/JCO.2024.42.16_suppl.e16326).
4. Hertz DL, Kidwell KM, **Seewald NJ**, Gersch CL, Desta Z, Flockhart DA, Storniolo AM, Stearns V, Skaar TC, Hayes DF, Henry NL, and Rae JM. "CYP3A4\*22 Polymorphism Is Associated with Increased Exemestane Concentrations in Postmenopausal Breast Cancer Patients". *Cancer Research*. Thirty-Eighth Annual CTRC-AACR San Antonio Breast Cancer Symposium. Vol. 76. San Antonio, TX: AACR, 2016, P5-12-05. DOI: [10.1158/1538-7445.SABCS15-P5-12-05](https://doi.org/10.1158/1538-7445.SABCS15-P5-12-05).
3. Kadakia KC, Kidwell KM, **Seewald NJ**, Synder CF, Flockhart DA, Carpenter JS, Otte JL, Hayes DF, Storniolo AM, Stearns V, and Henry NL. "Crossover from One Aromatase Inhibitor (AI) to Another in the Exemestane and Letrozole Pharmacogenetics (ELPh) Trial". *Journal of Clinical Oncology*. 2016 Cancer Survivorship Symposium. Vol. 34. 2016, pp. 158–158. DOI: [10.1200/jco.2016.34.3\\_suppl.158](https://doi.org/10.1200/jco.2016.34.3_suppl.158).
2. Kadakia KC, Snyder CF, Kidwell KM, **Seewald NJ**, Storniolo AM, Flockhart DA, Carpenter JS, Hayes DF, Stearns V, and Henry NL. "Associations between Treatment-Emergent Symptoms and Early Discontinuation of Aromatase Inhibitor (AI) Therapy." *Journal of Clinical Oncology*. 2015 ASCO Annual Meeting. Vol. 33. 2015, e20745–e20745. DOI: [10.1200/jco.2015.33.15\\_suppl.e20745](https://doi.org/10.1200/jco.2015.33.15_suppl.e20745).
1. Mammoser AG, Weathers SPS, **Seewald NJ**, Taylor JM, and Junck L. "Primary CNS Lymphoma; a Review of the University of Michigan Experience 2004-2013." *Journal of Clinical Oncology*. 2015 ASCO Annual Meeting. Vol. 33. 2015, e13012–e13012. DOI: [10.1200/jco.2015.33.15\\_suppl.e13012](https://doi.org/10.1200/jco.2015.33.15_suppl.e13012).

## Under Review

4. \*Gerety M, Charu V, **Seewald NJ**, Glenn D, Schaubel DE, Smith AR, Chen D, Laurin LP, Denburg M, Holzman L, Beck L, Mariani LH, and Zee J. "Long-Term Comparative Effectiveness of Rituximab vs. Calcineurin Inhibitors for the Treatment of Membranous Nephropathy: A Retrospective Matched Cohort Study" (2025). In preparation.
3. \*Mayer M, **Seewald NJ**, Ulloa Perez E, Homet Moreno B, Ramamurthy C, Babcock A, Li H, and Mamtani R. "Real-World Time on Treatment with First-Line Enfortumab Vedotin plus Pembrolizumab after US Food and Drug Administration Approval for Advanced Urothelial Cancer" (2025). In preparation.
2. O'Leary C, Tischfield D, Avritscher R, El-Haddad G, Garcia-Monaco R, Fidelman N, Vijayvergia N, Kunz PL, **Seewald NJ**, and Soulen MC. "Associations between Patterns of Neuroendocrine Liver Metastatic Burden and Outcomes after Liver-Directed Therapy, Systemic Chemotherapy and Systemic Radiotherapy" (2025). Submitted.
1. Eisenberg MD, Tormohlen KN, McCourt AD, Yu J, Neupane R, Ge Y, Stuart EA, Fingerhood MI, **Seewald NJ**, and McGinty EE. "Impact of State Telemedicine Policies on Substance Use Disorder Treatment during the COVID-19 Pandemic" (2025). Submitted.

In Preparation

2. **NJ Seewald**, M Cohen\*, EE McGinty, and EA Stuart. “Ready to Roll? Whether and when to aggregate multilevel data in difference-in-differences.”
  1. **NJ Seewald**, R Jasper\*, and D Almirall. “Sample size and timepoint tradeoffs for comparing dynamic treatment regimens in a longitudinal SMART.”

## Other Publications and Preprints

Alternative Media

1. Morabia A (host), Chakraborty B, **Seewald NJ** (2023) “SMART and MRT - Emerging methods in public health,” *AJPH Podcast*, American Public Health Association. September 13. Available at <https://youtu.be/TER4kRJpCh0>.

# Teaching Experience

University of Pennsylvania Perelman School of Medicine

### Course Director

1. BSTA 6100: Biostatistical Methods for Epidemiology Fall 2024, Fall 2025

## Guest Lecturer

2. Penn Causal Summer Institute 2024 - Present  
“Quasi-Experimental Designs.”  
Co-Directors: Nandita Mitra, Ph.D.; Eric Tchetgen-Tchetgen, Ph.D.

1. EPID 7020: Advanced Topics in Epidemiologic Research Spring 2025  
“Quasi-Experimental Designs.”  
Course Director: Ellen C. Caniglia, Ph.D.

Johns Hopkins Bloomberg School of Public Health

### Co-Instructor



## Guest Lecturer

University of Michigan

Graduate Student Mentor

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|---|-----------------------|
| 1. <i>STATS 250: Introduction to Statistics and Data Analysis</i> | AY 2019-20, AY 2020-1 |
| Instructor: Brenda Gunderson, Ph.D.; Jack Miller, Ph.D.           |                       |

Graduate Student Instructor

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|---|------------------------------------|
| 3. <i>STATS 250: Introduction to Statistics and Data Analysis</i> | Spring 2018, AY 2019-20, AY 2020-1 |
| Instructor: Brenda Gunderson, Ph.D.; Jack Miller, Ph.D.           |                                    |
| 2. <i>STATS 415: Data Mining</i>                                  | Winter 2018                        |
| Instructor: Liza Levina, Ph.D.                                    |                                    |
| 1. <i>STATS 500: Statistical Learning I: Regression</i>           | Fall 2017                          |
| Instructor: Brian Thelan, Ph.D.                                   |                                    |

Instructional Assistant

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|---|-------------|
| 1. <i>STATS 250: Introduction to Statistics and Data Analysis</i> | Summer 2020 |
| Supervisor: Jack Miller, Ph.D.                                    |             |

Inter-university Consortium for Political and Social Research (ICPSR)

Teaching Assistant, Summer Program in Quantitative Methods of Social Research

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|---|--------------------------|
| 2. <i>Multilevel Models I: Introduction and Application</i>       | Summer 2018, Summer 2019 |
| Instructor: Mark Manning, Ph.D.                                   |                          |
| 1. <i>Introduction to the R Statistical Computing Environment</i> | Summer 2018, Summer 2019 |
| Instructor: John Fox, Ph.D.                                       |                          |

University of Notre Dame

Undergraduate Teaching Assistant

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|-------------------------------------|-------------|
| 1. <i>BIOS 40411: Biostatistics</i> | Spring 2012 |
| Instructor: Gary Lamberti, Ph.D.    |             |

## Mentorship Experience

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### Academic Advisees

5.	Ryan Jasper	Ph.D., Biostatistics	2025 - Present
4.	Ryan Jasper	M.A., Biostatistics	2025 - Present
3.	Meghan Gerety	Ph.D., Biostatistics	2025 - Present
2.	Luke Stewart Joint with Jinbo Chen, Ph.D.	M.A., Biostatistics	2025 - Present
1.	Melissa Martin Joint with Ian Barnett, Ph.D.	Ph.D., Biostatistics	2024 - Present

### Ph.D. Committee Membership

1.	Jimmy Kelliher Committee Chair	Ph.D., Biostatistics	2024 - Present
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### Biostatistics Ph.D. Lab Rotation Advisees

1.	Ryan Jasper	Fall 2024, Summer 2025
2.	Meghan Gerety Co-advised with Rebecca Hubbard, Ph.D., in Spring 2024	Spring 2024 - Spring 2025

### Masters of Science in Clinical Epidemiology Advisees

3.	Hao Tong, M.D.	2025 - Present
2.	Emily Moin, M.D., M.B.E.	2023-2025
1.	Eleanor Taranto, M.D.	2023-2025

## Consulting Experience

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### Statistical Consultant

1.	<i>Committee for Children</i> , Seattle, WA	May - December 2021
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### Graduate Student Consultant

1.	<i>Consulting for Statistics, Computing, and Analytics Research (CSCAR)</i> University of Michigan	Fall 2018
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# Presentations and Posters

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## Presentations at Scientific Meetings

15. Ecological regression in health policy evaluation: A guilt-free dessert
  - Society for Epidemiologic Research Annual Meeting. Boston, MA. June 2025. *Invited.*
14. How to ask the right question: Choosing estimands for health policy research
  - International Conference on Computational and Methodological Statistics. London, United Kingdom. December 2025. *Invited.*
  - ENAR Spring Meeting. New Orleans, LA. March 2025. *Invited.*
13. Crafting relevant research: Informative and translational statistics for public policy
  - Joint Statistical Meetings. Portland, OR. August 2024. *Invited Panelist.*
12. Target trial emulation for evaluating mental health policy
  - Thomas R. Ten Have Symposium on Statistics in Mental Health. New York, NY. June 2024. *Invited.*
11. Practical guidance on whether and when to aggregate individual-level data for causal health policy evaluation
  - American Causal Inference Conference. Seattle, WA. May 2024.
10. Target trials in policy evaluation: A case study in medical cannabis laws
  - Society for Epidemiologic Research Annual Meeting. Portland, OR. June 2023. *Invited.*
9. Handling correlation in stacked difference-in-differences estimates with application to medical cannabis policy
  - International Conference on Computational and Methodological Statistics. Berlin, Germany. December 2023. *Invited.*
  - American Causal Inference Conference. Austin, TX. May 2023.
  - Joint Statistical Meetings. Washington, DC. August 2022.
8. Ready to Roll? Practical guidance on whether and when to aggregate data in health policy evaluation
  - International Conference on Health Policy Statistics. Scottsdale, AZ. January 2023.
7. Policy evaluation in the real world: Experiences with translating cutting-edge methods for an applied audience
  - American Causal Inference Conference. Berkeley, CA. May 2022.
6. Budgeting SMART: Sample size and repeated measures with a cost constraint in a longitudinal sequential, multiple-assignment randomized trial.
  - ENAR Spring Meeting. Virtual. March 2021.
5. Sample size and timepoint tradeoffs for comparing dynamic treatment regimens in a longitudinal SMART.

- Joint Statistical Meetings. Virtual. August 2020.
4. Design considerations for comparing dynamic treatment regimens in a longitudinal SMART.
    - ENAR Spring Meeting. Virtual. March 2020.
  3. Sample size considerations for comparing dynamic treatment regimes in a SMART with a longitudinal outcome.
    - International Conference on Computational and Methodological Statistics. London, United Kingdom. December 2019.
    - Joint Statistical Meetings. Denver, CO. July 2019.
  2. Sample size considerations for comparing dynamic treatment regimens in a sequentially-randomized trial with a continuous longitudinal outcome.
    - Society for Clinical Trials Annual Meeting. New Orleans, LA. May 2019.
  1. Sample size considerations for comparing dynamic treatment regimens in a sequential multiple-assignment randomized trial with a continuous longitudinal outcome.
    - Joint Statistical Meetings. Vancouver, BC, Canada. July 2018.
    - ENAR Spring Meeting. Atlanta, GA. March 2018.

## Invited Colloquia

1. Design thinking for policy evaluation: The policy trial emulation framework
  - Department of Statistics, North Carolina State University. Raleigh, NC. April 2025.
2. Target trial emulation for evaluating health policy
  - Philadelphia Chapter, American Statistical Association. Virtual. March 2024.
3. Using individual-level data in difference-in-differences for health policy evaluation.
  - Department of Biostatistics and Data Science, Wake Forest University School of Medicine. Virtual. March 2023.
  - Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania Perelman Medical School. Virtual. March 2023.
  - Department of Public Health Sciences, Henry Ford Health. Virtual. February 2023.
  - Division of Biostatistics, Northwestern University Feinberg School of Medicine. Chicago, IL. January 2023.
  - Departments of Population Health Sciences and Biostatistics and Medical Informatics, University of Wisconsin-Madison. Madison, WI. January 2023.
  - Department of Biostatistics, University of Colorado Anschutz Medical Campus. Virtual. January 2023.
  - Johns Hopkins ALACRITY Center Research in Progress Meeting. Virtual. November 2022.
4. A brief introduction to multi-stage trials for developing dynamic treatment regimens.
  - MNeuroNetwork Lab Seminar, University of Michigan. Virtual. March 2022.

- Working Group on Clinical Research, University of Rochester Medical Center. Virtual. October 2021.
- 5. Design, analysis, and sizing of sequential multiple assignment randomized trials with binary outcomes.
  - Graduate Student Statistical Topics Seminar Series, Department of Statistics, University of Michigan. September 2015.

## Posters

1. “Ready to roll? Practical guidance on whether and when to aggregate data in health policy evaluation”
  - AcademyHealth Annual Research Meeting. Washington, DC. June 2022.
2. Sample size considerations for comparing dynamic treatment regimens in a sequential multiple-assignment randomized trial with a continuous longitudinal outcome.
  - Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. March 2019.
  - Thomas R. Ten Have Symposium on Statistics in Mental Health. Chicago, IL. June 2018.
3. Sample size considerations for the analysis of continuous repeated-measures outcomes in sequential multiple-assignment randomized trials.
  - Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. March 2017.
4. A SMART web-based sample size calculator.
  - Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI. March 2015.
  - IMPACT Symposium III: Advances in Clinical Trial Statistics: Multiplicity Adjustment and SMARTs. Cary, NC. November 2014.

## Research Grants

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### Funded

1. Impact of U.S. State Recreational Cannabis Laws on Opioid Prescribing for Chronic Non-Cancer Pain and Statistical Methods for Informative Policy Adoption
  - Role:* Principal Investigator
  - Funding Source:* Thomas B. McCabe and Jeannette E. Laws McCabe Fund  
<https://www.med.upenn.edu/evdresearch/mccabe-fund.html>
  - Funding Level:* Pilot Award, 7/1/24 - 12/31/25: \$36,347

## Software

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1. SMARTsize: A sample size calculator for sequential, multiple-assignment, randomized trials with binary or continuous outcomes in which the primary aim is to compare two embedded dynamic treatment regimes.  
<https://nseewald1.shinyapps.io/SMARTsize/>
2. MRT-SS Calculator: A sample size calculator for micro-randomized trials in which the primary aim is to detect the proximal effect of providing an intervention.  
<https://pengliao.shinyapps.io/mrt-calculator/>

## Professional Service

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### Public Training Materials

1. “Target Trial Emulation for Evaluating Health Policy.”  
Johns Hopkins ALACRITY Center for Health and Longevity in Mental Illness  
<https://www.youtube.com/watch?v=DAXfp8X9ba8>
2. “Building Effective Adaptive Interventions in Mental Health Services Research.”  
Johns Hopkins ALACRITY Center for Health and Longevity in Mental Illness  
<https://youtube.com/playlist?list=PLj4-nn-p-zv1o-cR9jiITTRfgkwmyqjoD>

### Workshop Design and Facilitation

1. “SMART Designs for Developing Adaptive Interventions”
  - Statistical Horizons, Virtual. July 8-11, 2025.
  - Statistical Horizons, Virtual. August 19-23, 2024.
2. “Embedding Qualitative and Quantitative Methods for Policy Evaluation”
  - Invited pre-conference workshop: 15th International Conference on Health Policy Statistics, San Diego, CA. January 6, 2024. *Co-designer and facilitator with Beth McGinty, Ph.D. and Eli Ben-Michael, Ph.D.*
3. “Introduction to Adaptive Interventions and Sequential Multiple Assignment Randomized Trials”
  - Invited pre-conference workshop: Society of Behavioral Medicine Annual Meeting, Baltimore, MD. April 6, 2022. *Co-designer and facilitator with Ahnalee Brincks, Ph.D., and Shawna N. Smith, Ph.D.*
4. “Building Just-in-Time Adaptive Interventions.”
  - Center for Dissemination and Implementation Science Summer Institute, University of Illinois Chicago. Virtual. October 25-26, 2021. *Small group expert facilitator.*
5. “Using SMART Design in Responsive Survey Design.”
  - Responsive Survey Design: A Research Education Program. Institute for Social Research, University of Michigan. June 19, 2019. *Co-designer and facilitator with Ahnalee Brincks, Ph.D.*

6. "Getting SMART about Adaptive Interventions in Education."
  - Institute of Education Sciences-funded training institute at the University of Michigan. March 11-14, 2019. *Co-designer and facilitator with d<sup>3</sup>lab [d3lab.isr.umich.edu](http://d3lab.isr.umich.edu).*
7. "Getting SMART: Experimental Design and Analysis Methods for Developing Adaptive Interventions"
  - University of California, San Francisco. May 19, 2015. *Co-facilitator with Inbal Nahum-Shani, Ph.D.*
8. "Experimental Design and Analysis Methods for Developing Adaptive Interventions: Getting SMART"
  - Methodology Center Summer Institute. Ann Arbor, MI. June 19-20, 2014. *Small group facilitator.*

## Peer Review and Editorial Activities

### Editorial

Guest Academic Editor, PLOS Medicine

### Ad hoc Reviewer

American Journal of Epidemiology  
American Journal of Public Health  
Annals of Applied Statistics  
Behavior Research Methods  
BMJ  
Clinical Trials  
Contemporary Clinical Trials  
Data Science in Science  
Frontiers in Digital Health  
Health Services Research  
JAMA Health Forum  
JAMA Network Open  
JAMA Pediatrics  
Journal of the American Statistical Association (Theory and Methods)  
Pharmacoepidemiology and Drug Safety  
Psychological Methods  
R Journal  
Statistics and Public Policy  
Statistics in Medicine  
Value in Health

## Departmental Service

7. Member, Biostatistics Seminar Committee. Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania. 2025 - Present.

6. Member, Epidemiology Qualifying Exam Committee. Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania. 2025 - Present.
5. Co-Chair, Junior Faculty Committee. Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania. 2023 - Present.
4. Member, Biostatistics Student Recruitment Committee. Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania. 2023 - Present.
3. Student Representative, Faculty Diversity, Equity, and Inclusion Committee. Department of Statistics, University of Michigan. AY 2020-2021.
2. Co-Lead, Graduate Student Instructor Foundations Colloquium. Department of Statistics, University of Michigan. AY 2020-2021.
1. Steering Committee Member, Graduate Student Diversity, Equity, and Inclusion Working Group. Department of Statistics, University of Michigan. 2020-2021.

## Professional Memberships

American Statistical Association (2015 - present)  
International Biometrics Society, Eastern North American Region (ENAR) (2015 - present)  
Society for Causal Inference (2023 - present)  
Society for Clinical Trials (2015 - 2021)  
Society of Industrial and Applied Mathematics (SIAM) (2020-2021)  
Society of Behavioral Medicine (2022 - 2023)

## Organizational Activities

8. Member, Program Committee, 18th Annual Conference on Statistical Issues in Clinical Trials. University of Pennsylvania. 2025-2026.
7. Member, Program Committee, 2026 American Causal Inference Conference. Society for Clinical Trials. 2025-2026.
6. Session Chair, ENAR Spring Meeting. March 2025.
5. Chair, Diversity Equity and Inclusion Committee. Society for Causal Inference. 2025 - present.
4. Member, Program Committee, 17th Annual Conference on Statistical Issues in Clinical Trials. University of Pennsylvania. 2024-2025.
3. Member, Outreach Committee, 15th International Conference on Health Policy Statistics. 2024.
2. Session Chair, 14th International Conference on Health Policy Statistics. January 2023.
1. Session Chair, Joint Statistical Meetings. August 2022.

## Professional Development

4. U-M Graduate Teacher Certificate. Rackham Graduate School and Center for Research on Learning and Teaching, University of Michigan. Completed April 2021. [crlt.umich.edu/um.gtc](http://crlt.umich.edu/um.gtc)
3. Inclusive STEM Teaching Project. Completed December 2020. [inclusivestemteaching.org](http://inclusivestemteaching.org)
2. Preparing to Teach: Workshop to prepare graduate students for a role as undergraduate faculty responsible for teaching statistics and data science. May 2020. [preparingtoteach.org](http://preparingtoteach.org)
1. Professional Development Diversity, Equity, and Inclusion Certificate. Rackham Graduate School, University of Michigan. Completed April 2020. [rackham.umich.edu](http://rackham.umich.edu)