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CURRICULUM VITAE

Susan Marlene Shortreed

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1. BIOGRAPHICAL INFORMATION:

Susan M Shortreed, MS PhD
Email: shortreedsm@gmail.com
Pronouns: she/her/hers
Phonetic spelling: SOO-zn SH-or-t-ree-d

Senior Investigator and Manager
Biostatistics Division, Kaiser Permanente Washington Health Research Institute, Seattle, WA

Affiliate Professor
Department of Biostatistics, University of Washington

2. EDUCATION:

University of Washington, Seattle, WA, USA

Ph.D., Department of Statistics   *Graduation*: December 2006
  Dissertation Topic: Learning in Spectral Clustering
  Advisor: Marina Meilă

M.S., Department of Statistics   *Graduation*: December 2004

University of Michigan, Ann Arbor, MI, USA

B.S., Department of Statistics   *Graduation*: June 2001
  Minor: Mathematics
  High honors

3. LICENSURE:

Not applicable

4. PROFESSIONAL POSITIONS:

Senior Investigator and Manager   Aug 2022 - Present
Biostatistics Division, Kaiser Washington Health Research Institute, Seattle, WA

Affiliate Professor   Jul 2021 - Present
Department of Biostatistics, University of Washington, Seattle, WA

Senior Investigator   Sept 2019 - Aug 2022
Biostatistics Unit, Kaiser Washington Health Research Institute, Seattle, WA

Affiliate Associate Professor   Jun 2015 - Jun 2021
Department of Biostatistics, University of Washington, Seattle, WA

Associate Investigator   Mar 2017 - Aug 2019
Biostatistics Unit, Kaiser Washington Health Research Institute, Seattle, WA

Associate Investigator   May 2014 - Mar 2017
Biostatistics Unit, Group Health Research Institute, Seattle, WA

Affiliate Assistant Professor   Apr 2013 - Jun 2015
Department of Biostatistics, University of Washington, Seattle, WA

Assistant Investigator   Nov 2010 - Apr 2014
Biostatistics Unit, Group Health Research Institute, Seattle, WA

Post-doctoral Research Fellow   Jan 2009 - Oct 2010
School of Computer Science, McGill University, Montreal, QC, CAN

Research Scientist   Jan 2007 - Dec 2008
Dept of Epidemiology and Preventive Medicine, Monash University, Melbourne, VIC, Australia

Research Assistant   Jan 2004 - Sep 2006
Department of Statistics, University of Washington, Seattle, WA, USA

Summer Associate   Jun 2003 - Dec 2003
RAND, Pittsburgh, WA, USA

Research Assistant   Jun 2002 - Dec 2003
Center for Statistics in the Social Sciences, University of Washington, Seattle, WA, USA

5. HONORS, AWARDS, and SCHOLARSHIPS:

Elected Fellow of the American Statistical Association, 2022
Elected Fellow of the American Association for the Advancement of Science, 2020
Recipient of KPWHRI Faculty Mentoring award, 2020
Nominated for KPWHRI Mentoring award, 2013, 2018, 2020
Biometrics Highlighted Paper for Atlantic Causal Inference Conference 2018
Invited participant to American Statistical Association's Sense About Science Media Training and
Public Communication Workshop 2016
Invited participant to Statistical and Applied Mathematical Sciences Institute Ideas Lab 2015
NSF Vertical Integration for Graduate Research and Education (VIGRE) Fellow, 2001-02, 2003-05
Center for Statistics and the Social Sciences Blalock Fellow, 2001

6. PROFESSIONAL ACTIVITIES

National committees:
Chair-Elect, Chair, Past-Chair, ASA section on Statistics in Mental Health, 2025, 2026, 2027
Analytic Methods Core Lead, Mental Health Research Network, 2019-2024
Member, ASA section on Statistics in Epidemiology Mentoring Committee, 2018-2020
Chair-Elect, Chair, Past-Chair, ASA section on Statistics in Epidemiology, 2016, 2017, 2018
Secretary/Treasurer, ASA section on Statistics in Epidemiology, 2012 - 2015
Member, PCORI's Methods Work Group for missing and inconsistent data issues in large
data networks, 2015

Leadership training:
Graduate of KP Activate Leadership Program, 2024
Graduate of KP Elevate Leadership Program focused on social justice, 2023

Data safety and monitoring committees:
Effectiveness of Task Shifting to Peer Delivery of Behavioral Activation for Depression among
Pregnant Women (PI: Dimidjian)
Targeted intensive case management of Veterans at risk of suicide post inpatient hospitalization (PI: Weinstock and Kessler)

Editorial activities:
Associate Editor, Biometrics, 2024-present
Editorial Board, Observational Studies, 2017-Present
Associate Editor, Journal of the Royal Statistical Society, Series C, 2016-2019
Referee for:
Journals

American Journal of Epidemiology
Applied Clinical Informatics
Biometrics
Contemporary Clinical Trials
Epidemiology
Journal of the American Statistical Association
Journal of Causal Inference
Journal of Medical Internet Research
Statistics in Medicine
Medical Decision Making
Pharmacoepidemiology and Drug Safety
PLos One

Conferences

International Conference on Machine Learning 2021 Workshop: The Neglected Assumptions in Causal Inference, 2021
Neural Information Processing Systems 2005, 2007, 2009, 2010, 2011, 2012
Conference on Artificial Intelligence and Statistics 2007, 2009, 2010, 2011, 2012
European Symposium on Algorithms 2006
International Conference on Machine Learning 2007
SIAM International Conference on Data Mining 2005
Conference on Knowledge Based Computer Systems 2004

Ad hoc reviewer for research proposals from granting agencies

Exploratory Clinical Trials of Mind and Body Interventions, Jan 2024
Clinical and Data Coordinating Center for NCCIH Multi-Site Investigator-Initiated Clinical Trials of Mind, Jan 2024
Patient-Centered Outcomes Research Institute, Existing Interventions and Emerging Innovations in Health, July 2023, Nov 2023
National Institutes of Mental Health, RFA-MH-22-141, Jan 2023
Natural Sciences and Engineering Research Council (NSERC) of Canada, Jan 2023
National Institute of Mental Health, Practice-Based Suicide Prevention Research Centers (P50), Oct 2021
National Institute of Mental Health, Exploratory Clinical Trials of Mind and Body Interventions, Jul 2021
PCORI Assessment of Prevention, Diagnosis, and Treatment Options (deferred) Cycle 1 2020
National Institute of Mental Health, Pragmatic and Implementation Studies for the Management of Pain to Reduce Opioid Prescribing (PRISM), Spring 2020
National Institutes of Mental Health, ad hoc review panel for mental health services study section Winter, 2020
National Institutes of Mental Health, Pharmacological and Device-Based Interventions Spring 2020
National Institute of Mental Health, Pragmatic and Implementation Studies for the Management of Pain to Reduce Opioid Prescribing (PRISM), Spring 2019
National Institutes of Mental Health, ad hoc review panel Spring 2019
PCORI's Medication-assisted treatment deliver for pregnant women with substance use disorders involving prescription opioid and/or heroin, Fall 2018
National Institutes of Mental Health, Clinical Trial Effectiveness, Spring, Fall 2018
Institute of Education Sciences, Research Networks Focused on Critical Problems of Policy and Practice in Special Education, 2018
National Institutes of Mental Health, Addressing Suicide Research Gaps: Understanding Mortality Outcomes, 2018
Institute of Translational Health Sciences, University of Washington; Research Innovation Awards, 2016.
Patient-Centered Outcomes Research Institute (PCORI); Large Pragmatic Clinical Trials, Winter 2015 PFA; Spring 2015 PFA; Fall 2015
Patient-Centered Outcomes Research Institute (PCORI); Assessment of Prevention, Diagnosis, and Treatment Options, Spring 2014 PFA; Summer 2014 PFA; Fall 2020

Medical Research Council, United Kingdom
The Netherlands Organisation for Health Research and Development

Methodology consultant, Large Pragmatic Clinical Studies, PCORI 2017, 2018, 2020, 2021

Professional Memberships:

American Statistical Association (ASA)

ASA Biometrics Section
ASA Health Policy Section
ASA Justice, Equity, Diversity, and Inclusion (JEDI) Outreach Group
ASA Mental Health Statistics Section
ASA Statistics in Epidemiology Section
ASA Statistical Learning and Data Mining Section

American Association for the Advancement of Science (AAAS)

AAAS Section on Statistics

International Biometrics Society, Western North American Region
Society for Clinical Trials
Society for Causal inference

7. BIBLIOGRAPHY:

a) Peer-reviewed research articles, reverse chronological order

1. Benz L, Mukherjee R, Dahabreh I, Wang R, Arterburn D, Lee C, Fischer H, **Shortreed SM**, Haneuse S. (in press) Adjusting for Selection Bias Due to Missing Eligibility Criteria in Emulated Target Trials. *American Journal of Epidemiology*

2. Wolock, C J, Williamson B D, **Shortreed SM**, Simon GE, Coleman KJ, Yeargans R, Ahmedani B K, Daida Y, Lynch F L, Rossom R C, Ziebell R A, Cruz M, Wellman R D, Coley R Y. (in press) Importance of variables from different time frames for predicting self-harm using health system data. *Journal of Biomedical Informatics.*

3. Simon GE, Johnson E, **Shortreed SM**, Ziebell RA, Rossom RC, Ahmedani BK, Coleman KJ, Beck A, Lynch FL, Daida YG. (2024) Predicting suicide death after emergency department visits with mental health or self-harm diagnoses. *General Hospital Psychiatry.* 87:13-9

4. Ralston JD, Anderson ML, Ng J, Bashir A, Ehrlich K, Burns-Hunt D, Cotton M, Hansell L, Hsu C, Hunt D, Karter A, Levy S, Ludman E, Madziwa L, Omura E, Rogers K, Sevey B, Shaw J, **Shortreed S**, Singh U, Speight J, Sweeny A, Tschernisch K, Tschernisch S, Yarborough L. (2024) Preventing Severe Hypoglycemia in Adults with Type 2 Diabetes (PHT2): Design, Delivery and Evaluation Framework for a Randomized Controlled Trial. *Contemporary Clinical Trials.* 139:107456

5. Moodie EEM, Bian Z, Coulombe J, Lian Y, Yang AY, **Shortreed SM**. (2024) Variable selection in high dimensions for discrete-outcome individualized treatment rules: A case study in reducing severity of depression symptoms. *Biostatistics.* 25(3):633–47.

6. Harrington LB, Powers JD, Bayliss EA, Fortmann SP, **Shortreed SM**, Walker RL, Floyd JS, Kuntz J, Fuller S, Albertson-Junkans L, Lee MH, Temposky LA, Dublin S. (2024) Current use of estrogen-containing oral contraceptives or hormone therapy and risk of COVID-19 infection and hospitalization: a population-based cohort study. *American Journal of Epidemiology.* 193(10):1417–25

7. Spicker D, Moodie EEM, **Shortreed SM**. (2024) Differentially Private Outcome-Weighted Learning for Optimal Dynamic Treatment Regime Estimation. *Stat.* 13(1):e641.

8. Simon GE, Rossom RC, Iturralde E, Ahmedani BK, Waring SC, Owen-Smith AA, Sterling SA, Miley K, Stults CD, Daida YG, Lynch FL, Beck A, Sanchez K, Coleman KJ, **Shortreed SM**. (2024) Clozapine use among people with psychotic disorders who experience specific indications for clozapine. *Journal of Clinical Pyschiatry.* 85(2):23m14833.

9. Simon GE, **Shortreed SM**, Johnson E, Yaseen ZS, Stone M, Mosholder AD, Ahmedani BK, Coleman KJ, Coley RY, Penfold RB, Toh S. (2024) Predicting risk of suicidal behavior from insurance claims data vs. linked data from insurance claims and electronic health records. *Pharmacoepidemiology and Drug Safety.* 33(1):e5734.

10. Bian Z, Moodie EEM, **Shortreed SM**, Lambert SD, Bhatnagar S. (2023) Variable Selection for Individualized Treatment Rules with Discrete Outcomes. *Journal of the Royal Statistical Society, Series C.* qlad096.

11. Simon GE, Cruz M, **Shortreed SM**, Sterling SA, Coleman KJ, Ahmedani BA, Yaseen ZS, Mosholder AD. (2023) Stability of suicide risk prediction models during changes in health care delivery. *Psychiatric Services.* 17:0.

12. Simon GE, Cruz M, Boggs JM, Beck A, **Shortreed SM** Coley RY, (2023) Predicting Outcomes of Antidepressant Treatment in Community Practice Settings. *Psychiatric Services*

13. Rose E, Moodie EEM, **Shortreed SM**. (2023) Using Pilot Data for Power Analysis of Observational Studies for the Estimation of Dynamic Treatment Regimes. *Observational Studies.* 9(4):25-28.

14. Bian Z, Moodie EEM, **Shortreed SM**, Bhatnagar S. (in press) Variable selection in regression-based estimation of dynamic treatment regimes. *Biometrics.*

15. Floyd JS, Walker RL, Kuntz JL, **Shortreed SM**, Fortmann SP, Bayliss EA, Harrington LB, Fuller S, Albertson-Junkans LH, Powers JD, Lee MH, Temposky LA, Dublin S. (2023) Association between diabetes severity and risks of COVID-19 infection and outcomes. *Journal of General Internal Medicine.* 38(6):1484–92.

16. **Shortreed SM**, Walker RL, Johnson E, Wellman R, Cruz M, Ziebell R, Coley RY, Yaseen ZS Dharmarajan S, Penfold RB, Ahmedani BK, Rossom RC, Beck A, Boggs JM, Simon GE. (2023) Complex modeling with detailed temporal predictors does not improve health records-based suicide risk prediction. *Nature Digital Medicine.* 6:47.

17. Coulombe J, Moodie EEM, **Shortreed SM**, Renouz C. (2023) Estimating Individualized Treatment Rules in Longitudinal Studies with Covariate-Driven Observation Times. *Statistical methods in medical research.* 32:5:868–84.

18. Coley RY, Liao Q, Simon N, **Shortreed SM**. (2023) Empirical evaluation of internal validation methods for prediction in large-scale clinical data with rare-event outcomes: a case study in suicide risk prediction. *BMC Medical Research Methodology*

19. Rose EJ, Moodie EEM, **Shortreed SM** (2023) Monte Carlo sensitivity analysis for unmeasured confounding in dynamic treatment regimes. *Biometrical Journal.* 65:5

20. Cheetham C, **Shortreed SM**, Avalos LA, Reynolds K, Holt VL, Easterling TR, Portugal C, Zhou H, Neugebauer RS, Bider Z, Idu A, Dublin S. (2022) Identifying Hypertensive Disorders of Pregnancy, a Comparison of Two Epidemiological Definitions. *Frontiers in Cardiovascular Medicine, section Hypertension.* 9:1006104

21. Cruz M, **Shortreed SM**, Richards JE, Coley RY, Yarborough BJ, Walker RL, Johnson E, Ahmedani BK, Rossom R, Coleman KJ, Boggs JM, Beck AL, Simon GE. (2022) Machine learning prediction of suicide risk does not identify patients without traditional risk factors. *Journal of Clinical Psychiatry.* 83(5):21m14178

22. Simon GE, **Shortreed SM**, Rossom RC, Beck A, Clarke GN, Whiteside U, Richards JE, Penfold RB, Boogs JM, Smith J (2022) Effect of offering care management or online dialectical behavior therapy skills training vs usual care on self-harm among adult outpatients with suicidal ideation: a randomized clinical trial. *Journal of the American Medical Association.* 327(7):630-638.

23. Simon GE, **Shortreed SM**, Boggs JM, Clarke GN, Rossom RC, Richards JE, Beck A, Ahmedani BK, Coleman KJ, Bhakta B, Stewart CC, Sterling S, Schoenbaum M, Coley RY, Stone M, Mosholder AD, Yaseen ZS. (2022) Accuracy of ICD-10-CM encounter diagnoses from

health records for identifying self-harm events. *Journal of the American Medical Informatics Association.* ocac144.

24. Dublin S, Idu A, Avalos LA, Cheetham TC, Easterling TR, Chen L, Holt VL, Nance N, Bider-Canfield Z, Neugebauer RS, Reynolds K, Badon SE, **Shortreed SM**. (2022) Maternal and neonatal outcomes of antihypertensive treatment in pregnancy: a retrospective cohort study. *PLOS One.* 17(5): e0268284.

25. Moodie EEM, Coulombe J, Danieli C, Renoux C, **Shortreed SM** (2022) Privacy-preserving estimation of an optimal individualized treatment rule: A case study in maximizing time to severe depression-related outcomes. *Lifetime Data Analysis.* 25:512-542

26. **Shortreed SM**, Gray R, Akosile MA, Walker RL, Fuller S, Temposky L, Fortmann SP, Albertson-Junkans L, Floyd JS, Bayliss EA, Harrington LB, Lee MH, Dublin S. (2023) Increased COVID-19 infection risk drives racial and ethnic disparities in severe COVID-19 outcomes. *Journal of Racial and Ethnic Health Disparities.*

27. Muench J, Hoopes M, Mayhew M, Pisciotta M, **Shortreed SM**, Livingston CJ, Von Korff M, DeBar LL. (2022) Reduction of long-term opioid prescribing for back pain in Oregon community health centers after a state Medicaid policy change. *Journal of the American Board of Family Medicine.* 35(2):352-369.

28. Wu J, Galanter N, **Shortreed SM**, Moodie EEM. (2022) Ranking tailoring variables for constructing individualized treatment rules: an application to schizophrenia. *Journal of the Royal Statistical Society: Series C* 71(2):309-330.

29. Penfold RB, Whiteside U, Johnson EE, Stewart CC, Oliver MM, **Shortreed SM**, Beck A, Coleman KJ, Rossom RC, Lawrence JM, Simon GE. (2021) Utility of Item 9 of the Patient Health Questionnaire in the Prospective Identification of Adolescents at Risk of Suicide Attempt. *Suicide and Life Threatening Behavior* 51(5):854-863 .

30. Simon GE, **Shortreed SM**, DeBar LL. (2021) Zelen design clinical trials: Why, when, and how. *Trials* 22, 541.

31. Walker RL, **Shortreed SM**, Ziebell RA, Johnson E, Boggs JM, Lynch FL, Daida YG, Ahmedani BL, Rossom R, Coleman KJ, Simon GE. (2021) Evaluation of electronic health record-based suicide risk prediction models on contemporary data. *Applied Clinical Informatics* 12(4):778–87.

32. Penfold RB, Johnson E, **Shortreed SM**, Ziebell RA, Lynch FL, Clarke GN, Coleman KJ, Waitzfelder BE, Beck AL, Rossom RC, Ahmedani BK, Simon GE. (2021) Predicting Suicide Attempts and Suicide Deaths Among Adolescents Following Outpatient Visits. *Journal of Affective Disorders* 294:39-47

33. Coley RY, Johnson E, Simon GE, Cruz M, **Shortreed SM**. (2021) Racial/Ethnic Disparities in the Performance of Prediction Models for Death by Suicide After Mental Health Visits. *Journal of the American Medical Association Psychiatry* 78(7):726–734.

34. Coley RY, Walker RL, Cruz M, Simon GE, **Shortreed SM**. (2021) Clinical risk prediction models and informative cluster size: Assessing the performance of a suicide risk prediction algorithm. *Biometrical Journal* 63(7):1375–88.

35. Dublin S, Walker RL, Floyd JS, **Shortreed SM**, Fuller S, Albertson-Junkans L, Harrington LB, Greenwood-Hickman MA, Green BB, Psaty BM. (2021) Renin-angiotensin-aldosterone system inhibitors and COVID-19 infection or hospitalization: a cohort study. *Am J Hypertension.* 34(4):339–47.

36. Coulombe J, Moodie EEM, **Shortreed SM**, Renoux C. (2021) Can the risk of severe depression-related outcomes be reduced by tailoring the antidepressant therapy to patient characteristics? *American Journal of Epidemiology* 190(7):1210–9.

37. Simon GE, Matarazzo BB, Walsh CG, Smoller JW, Boudreaux ED, Yarborough BH, **Shortreed SM**, Coley RY, Ahmedani BK, Doshi RP, Harris LI, Schoenbaum M. (2021) Reconciling Statistical and Clinicians' Predictions of Suicide Risk *Psychiatric Services* 72(5):555-562.

38. Richards JE, **Shortreed SM**, Simon GE, Penfold RB, Glass JE, Ziebell R, Williams EC. (2020) Association Between Patterns of Alcohol Use and Short-Term Risk of Suicide Attempt Among Patients With and Without Reported Suicidal Ideation. J Addict Med. 14(5):e160-e169.

39. Zheng Y, Corley DA, Doubeni C, Halm E, **Shortreed SM**, Barlow WE, Zauber A, Tosteson TD, Chubak J. (2020) Analyses of preventive care measures with incomplete historical data in electronic medical records: An example from colorectal cancer screening. *The Annals of Applied Statistics* 14(2):1030–44.

40. Carrell DS, Ramaprasan A, Scull G, Mackwood M, Johnson E, Cronkite DJ, Bear A, Hansen K, Green CA, Hazlehurst B, Janoff SL, Coplan PM, DeVeaugh-Geiss A, Grigaiva CG, Liang C, Enger CL, Lange J, **Shortreed SM**, Von Korff M. (2020) Measuring problem prescription opioid use among patients receiving long-term opioid analgesic treatment: development and evaluation of an algorithm for use in EHR and claims data. *Journal of Drug Assessment* 9(1):97-105.

41. **Shortreed SM** and Simon GE. Can predictive analytics improve the design of pragmatic clinical trials? (2020) *Clinical Trials* 17(4):394–401.

42. Chen L, **Shortreed SM**, Easterling T, Cheetham TC, Reynolds K, Avalos LA, Kamineni A, Holt V, Neugebauer R, Akosile M, Nance N, Bider-Canfield Z, Walker RL, Badon SE, Dublin S. (2020) Identifying hypertension in pregnancy using electronic medical records: The importance of blood pressure values. *Pregnancy Hypertension* 19:112-118.

43. Richards JE, **Shortreed SM**, Simon GE, Penfold RB, Glass JE, Ziebell R, Williams EC. (2020) Short-term risk of suicide attempt associated with patterns of patient-reported alcohol use determined by routine AUDIT-C among adults receiving mental healthcare. *Gen Hosp Psychiatry* 62:79-86.

44. Simon GE, **Shortreed SM**, Johnson E, Rossom RC, Lynch FL, Ziebell R, Penfold RB. (2019) What health records data are required for accurate prediction of suicidal behavior? *Journal of the American Medical Informatics Association* 26(12):1458–65.

45. Richards JE, Hohl S, Whiteside U, Ludman EJ, Grossman D, Simon G, **Shortreed SM**, Lee AK, Parrish R, Shea M, Caldeiro R, Penfold R, Williams EC. (2019) If You Listen, I Will Talk: The Experience of Being Asked about Suicidality during Routine Primary Care. *J Gen Intern Med* 34(10):2075–82.

46. Simon GE, **Shortreed SM**, Coley RY, Penfold RB, Rossom RC, Waitzfelder BE, Sanchez K, Lynch FL, (2019) Assessing and minimizing re-identification risk in research data derived from healthcare records. *eGEMS* 7(1):6.

47. Chen L, Pocobelli G, Yu O, **Shortreed SM**, Osmundson SS, Fuller S, Wartko PD, McCulluch D, Warwick S, Newton K, Dublin S. (2019) Early pregnancy hemoglobin A1C and pregnancy outcomes: a population-based study. *American Journal of Perinatology* 36(10):1045–53.

48. Simon GE, **Shortreed SM**, Rossom RC, Penfold RB, Sperl-Hillen JM, O'Conner P. (2019) Principles and procedures for data and safety monitoring in pragmatic clinical trials. *Trials* 20:690–8.

49. **Shortreed SM**, Rutter CM, Cook AJ, Simon GE. (2019) Improving pragmatic clinical trial design by using real-world data. *Clinical Trials.*

50. **Shortreed SM**, Cook AJ, Coley YR, Bobb JF, Nelson JC. (2019) Challenges and opportunities for using big clinical data to advance medical science *American Journal of Epidemiology.*

51. Simon GE, Yarborough BJ, Rosson RC, Lawrence JM, Lynch FL, Waitzfelder BE, Ahmedani BK, **Shortreed SM**. (2019) Self-reported suicidal ideation predicts suicidal behavior in outpatient receiving psychotic disorder diagnosis. *Psychiatric Services,*70:176-83.

52. Dublin S, Walker RL, **Shortreed SM**, Ludman EJ, Sherman KJ, Hansen RN, Thakral M, Saunders K, Parchman ML, Von Korff M. (2019) Impact of initiatives to reduce prescription opioid risks on medically attended injuries in people using chronic opioid therapy. *Pharmacoepidemiology and Drug Safety,*28(1):90-6.

53. Von Korff M, Saunders K, Dublin S, Walker R, Thakral M, Sherman KJ, Ludman E, Hansen RN, Parchman M, **Shortreed SM**. (2019) Impact of chronic opioid therapy risk reduction initiatives on opioid overdose. *Journal of Pain,*20(1):108-117.

54. Coleman KJ, Johnson E, Ahmedani BK, Beck A, Rossom RC, **Shortreed SM**, Simon GE. (2019) Predicting suicide attempts for racial and ethnic groups of patients during routine clinical care. *Suicide and Life-Threatening Behavior,*49(3):724–34.

55. Simon GE, Johnson E, Lawrence JM, Rossom RC, Ahmedani B, Lynch FM, Beck A, Waitzfelder B, Ziebell R, Penfold RB, **Shortreed SM**. (2018) Predicting suicide attempts and suicide deaths following outpatient visits using electronic health records. *The American Journal of Psychiatry,* 175(10):951–60.

56. Thakral M, Walker R, Saunders K, **Shortreed SM**, Parchman M, Hansen R, Dublin S, Sherman KJ, Von Korff M. (2018) Impact of opioid dose reduction initiatives on chronic opioid therapy patients at higher risk for opioid-related adverse outcomes. *Pain Medicine,* 19(12):2450–8.

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58. Berger D, Lapham GT, **Shortreed SM**, Hawkins EJ, Rubinsky AD, Williams EC, Achtmeyer CE, Kivlihan DR, Bradley KA. (2018) Increasing rates of documented alcohol counseling in primary care: more counseling or just more documentation? *Journal of General Internal Medicine,* 33(3):268-74.

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60. Simon GE, Johnson E, Stewart C, Rossom RC, Beck A, Coleman KJ, Waitzfelder B, Penfold RB, Operskalski B, **Shortreed SM**. (2018) Does patient adherence to antidepressant medication actually vary between physicians? *Journal of Clinical Psychiatry,* 79(3).

61. Williams EC, Lapham GT, Bobb J, Rubinsky AD, Catz S, **Shortreed SM**, Bensley KM, Bradley KA. (2017) Documented brief intervention not associated with resolution of unhealthy alcohol use one year later among VA Patients Living with HIV *Journal of Substance Abuse Treatment,* 78:8-14

62. Zeber JE, Coleman KJ, Fischer H, Yoon T, Ahmedani BK, Beck A, Hubley S, Imel Z, Rossom RC, **Shortreed SM**, Stewart C, Waitzfelder BE, Simon GE. (2017) The impact of race and ethnicity on rates of return to psychotherapy for depression. *Depression and Anxiety,* 34(12):1157-1163.

63. Von Korff M, Walker RL, Saunders K, **Shortreed SM**, Thakral M, Parchman M, Hansen RN, Ludman E, Sherman KJ, Dublin S. (2017) Prevalence of prescription opioid use disorder among chronic opioid therapy patients after health plan opioid dose and risk reduction initiatives. *International Journal of Drug Policy,* 46:90-8

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65. **Shortreed SM**, Ertefaie A. (2017) Outcome-adaptive lasso: variable selection for causal inference. *Biometrics*, 73(4):1111-22.
Biometrics Highlighted Paper for Atlantic Causal Inference Conference 2018

66. Penfold RB, Stewart C, Simon GE, **Shortreed SM**, Johnson E, Rossom RC, Operskalski B, Beck A. (2017) Antidepressant Use by youth with minimal or mild depression: evidence from 3 health systems. *Pediatric Quality and Safety*, 2(2):e017

67. Williams EC, Lapham GT, **Shortreed SM**, Rubinsky AD, Bobb J, Bensley KM, Catz S, Richards J, Bradley KA. (2017) Among patients with unhealthy alcohol use, those with HIV are less likely than those without to receive evidence-based alcohol-related care: a national VA study. *Drug and Alcohol Dependence*, 174:113-120.

68. Von Korff M, **Shortreed SM**, LeResche LA, Saunders KW, Rosenberg R, Thielke S, Turner JA. (2017) A longitudinal study of depression among middle-aged and senior patients initiating chronic opioid therapy *Journal of Affective Disorders*, 211:136-143.

69. Hansen RN, Walker RL, **Shortreed SM**, Dublin S, Saunders K, Ludman EJ, Von Korff M. (2017) Impact of an opioid risk reduction initiative on motor vehicle crash risk among chronic opioid therapy patients. *Pharmacoepidemiology and Drug Safety*, 26(1):47-55.

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72. Simon GE, Beck A, Rossom RC, Richards J, Kirlin B, King D, Shulman L, Ludman EJ, Penfold R, **Shortreed SM**, Whiteside U. (2016) Population-based outreach versus care as usual to prevent suicide attempt: study protocol for a randomized controlled trial. *Trials*, 17(1):452.

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74. **Shortreed SM**, Johnson E, Rutter CM, Kaminei A, Wernli KJ, Chubak J. (2016) Cohort restriction based on prior enrollment: examining potential biases in estimating cancer and mortality risk. *Observational Studies*, 2:51-64.

75. Rossom RC, **Shortreed SM**, Coleman KJ, Beck A, Waitzfelder BE, Stewart C, Ahmedani BK, Zeber JE, Simon GE. (2016) Antidepressant adherence across diverse populations and healthcare settings. *Depression and Anxiety* 33(8):765-74.

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77. Moodie EEM, Karran J, **Shortreed SM**. (2016) A case study of SMART attributes: A qualitative assessment of generalizability, retention rate, and trial quality. *Trials*, 14:242

78. Simon GE, Coleman KJ, Rossom RC, Beck A, Oliver M, Johnson E, Whiteside U, Operskalski B, Penfold RB, **Shortreed SM**, Rutter R. (2016) Risk of suicide attempt and suicide death following completion of the Patient Health Questionnaire depression module in community practice. *Journal of Clinical Psychiatry*, 77(2):221–227.

79. Ertefaie A, **Shortreed SM**, Chakraborty B. (2016) Q-learning residual analysis: application to the effectiveness of sequences of antipsychotic medications for patients with schizophrenia. *Statistics in Medicine*, 35(13); 2221–34.

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102. Vitiello VM, McCurry SM, **Shortreed SM**, Balderson BH, Baker LD, Keefe FJ, Rybarczyk BD, Von Korff M. (2013) Cognitive-behavioral treatment for comorbid insomnia and osteoarthritis pain in primary care: the lifestyles randomized controlled trial. *Journal of the American Geriatrics Society (JAGS)*, 61(6):947-56.

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107. **Shortreed SM**, Laber E, Lizotte DL, Stroup S, Pineau J, Murphy SA. (2011) Informing sequential clinical decision-making through reinforcement learning: an empirical study. *Machine Learning*, 84(1):109-36.

108. Abdullah A, Stowlwinder J, **Shortreed SM**, Wolfe R, Stevenson C, Walls H, de Courten M, Peeters A. (2011) The duration of obesity and the risk of type-2 diabetes. *Public Health Nutrition*, 14(1):119-26.

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112. Botlero R, Davis SR, Urquhart D, **Shortreed S**, Bell R. (2009) Age-specific prevalence of, and factors associated with, different types of urinary incontinence in community-dwelling Australian women assessed with a validated questionnaire. *Maturitas*, 62(2):134-9.

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114. **Shortreed S**, Handcock M and Hoff P. (2006) Positional estimation within the latent space model for networks. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 2(1):24-33.

115. **Shortreed S** and Meilă M. (2005) Unsupervised spectral learning. Published in *proceedings of 21st Conference in Uncertainty in Artificial Intelligence*, edited by Fahiem Bacchus and Tommi Jaakkola.

116. Meilă M, **Shortreed S**, and Liang X. (2005) Regularized spectral learning. Published in *proceedings of Conference in Artificial Intelligence and Statistics*, edited by Robert Cowell and Zoubin Ghahramani.

c) Books and book chapters:

1. Bian Z, Moodie EEM, **Shortreed SM**, Lambert S, and Bhatnagar S. (in press) Tailoring variable selection and ranking for optimal treatment decisions. In "Handbook of Statistical Methods for Precision Medicine.'" Edited by Laber E., Chakraborty B., Moodie E. E. M., Cai T., and van der Laan M. CRC Press.

2. Bobb JF, Cook AJ, **Shortreed SM**, Glass JE, Vollmer WM. (2019) Experimental designs and randomization schemes: designing to avoid identification bias. In: Rethinking Clinical Trials: A Living Textbook of Pragmatic Clinical Trials. Bethesda, MD: NIH Health Care Systems Research Collaboratory. http://rethinkingclinicaltrials.org/chapters/design/experimental-designs-randomization-schemes-top/designing-to-avoid-identification-bias/.

3. Hanuese, S and **Shortreed SM** (2017) On the use of electronic health records for comparative effectiveness research. Contributed to *Methods for Comparative effectiveness research*, edited by Gatsonis, C and Morton, SC. CRC Press.

4. **Shortreed SM**, Laber E, Pineau J, Murphy SA. (2016) Imputing missing data from sequential multiple assignment randomized trials. Contributed to *Adaptive Treatment Strategies in Practice: Planning Trials and Analyzing Data for Personalized Medicine*, edited by Moodie, EEM and Kosorok, MR. American Statistical Association and the Society of Industrial and Applied Mathematics.

d) Other Non-peer-reviewed scholarly publications:

1. Schulz J, Moodie EEM, **Shortreed SM**. (2023) No Unmeasured Confounding: Known Unknowns or... Not? *AJE*, 192(9):1604–5.

2. Jones J, Ertefaie A, and **Shortreed SM**. (2023) Rejoinder to "Reader reaction to 'Outcome-adaptive Lasso: Variable selection for causal inference' by Shortreed and Ertefaie (2017)" *Biometrics*. 79(1):521–5

3. **Shortreed SM** and Moodie EMM. (2020) Comment: Automated analyses: Because we can, does it mean we should? *Statistical Science*, 35(3):499-502.

4. Simon GE, **Shortreed SM**, Boggs JM, Clarke GN, Rossom RC, Richards JE, Beck A. (2020) Estimating the Number of Self-Harm Events Not Identified by Encounter Diagnoses in Health Records. *medRxiv*.

5. Simon GE, **Shortreed SM** and Coley RY. (2019) Positive Predictive Values and Potential Success of Suicide Prediction Models. *JAMA Psychiatry*. 76(8):868–9.

6. Rutter CM and **Shortreed SM** (2012) Writing a clinically appraised topic is a team sport. *Academic Radiology*, 9(7):777-8.

7. **Shortreed S** and Forbes A (2007) Inverse probability weighted estimation of the marginal odds ratio: correspondence regarding 'The performance of different propensity score methods for estimating marginal odds ratios.' *Statistics in Medicine*, 27(26):5556-9.

8. PATENTS AND OTHER INTELLECTUAL PROPERTY:

Not Applicable

9. FUNDING HISTORY:

Currently funded projects

1. Machine learning to personalize antidepressant treatment (1R01MH134831-01); total direct costs:$2,357,872 ;PI: Simon; National Institutes of Mental Health; role: Co-investigator and lead Biostatistican, 0.20 FTE; 07/01/2024 - 06/30/2027

2. Self-Testing for Cervical Cancer in Priority Populations: the STEP-2 Trial (1UG3CA290286-01); total direct costs UG phase:$565,085 ;PI: Winer, Petrik, Tiro; National Cancer Institute; role: Co-investigator and lead Biostatistican, 0.05 FTE; 05/15/2024 - 04/30/2025

3. Use Care package 2 (UC2): Empiricial application of the Sentintel EHR and claims Data Partner network to enhance ARIA insufficient inferential request and atypical request. (75F40119F19010); total direct costs: $404,281; PI: Shortreed; Federal Drug Agency; role: Lead, FTE:0.20; 10/1/2023 - 09/30/2024

4. Sentinel subset calibration (); total direct costs: $373,973; PI: Shaw; Federal Drug Agency; role: Co-investigator, 0.10 FTE; 4/1/2023 - 3/31/2024

5. Identifying Optimal Antibiotic Regimens to Treat Urinary Tract Infections During Pregnancy (R01HD107083); total direct costs: 2,600,000;PI: Anne Butler; Eunice Kennedy Shriver National Institute of Child Health & Human Development; role: Co-investigator and lead Biostatistican, 0.10 FTE; 8/1/2022 - 4/30/2027

6. Innovative methods to reduce racial and ethnic disparities in suicide risk prediction (R01MH125821); total direct costs: $1,136,381; PI: Coley; National Institute of Mental Health; role: Co-Investigator, 0.10 FTE; 01/01/2022 –12/31/2025

7. Robust methods for missing data in electronic health records-based research (1R01DK128150-01); total direct costs: PI: Hanuese; National Institute of Diabetes and Digestive and Kidney Diseases; total direct costs: $2,089,811; role: Co-Investigator and Site PI, 0.10 FTE; 04/12/2021 - 03/31/2025

8. Comparing the Effectiveness of Two Approaches to Preventing Severe Hypoglycemia (IHS-2019C3-17889); total direct costs: $2,052,824; PI: Ralston; Patient-Centered Outcomes Research Institute; role: Co-Investigator and lead Biostatistician, 0.05 FTE; 11/1/2020 - 11/30/2024

Completed projects

9. Mental Health Research Network III (5U19MH121738); PI: Simon; National Institute of Mental Health; total direct costs: $8,710,543 ; Analytic Methods Core Lead and Administrative Core Co-investigator, 0.175 FTE; 9/23/2019 - 6/30/2024

10. Improved tailoring of depression care using customized clinical decision support (R01MH114873); PI: Moodie & Shortreed; National Institute for Mental Health; total direct costs: $1,000,000; PI, 0.30; 7/1/2018 - 4/30/2024

11. Buprenorphine Effect on Suicidal Behavior (3U19MH121738-02S2); PI: Simon; National Institute of Mental Health; total direct costs: $577,080; Co-investigator and lead Biostatistican, 0.10 FTE; 9/17/2020 - 8/31/2021

12. Potential for Repurposing Currently Approved Medications to Fight COVID-19: A Proof-of-Concept Study (R220071); total direct costs: $190,543; Co-investigator and lead Biostatistician, 0.10 FTE; 6/1/2020 - 6/30/2021

13. Effects of Medical Products on Suicidal Ideation and Behavior (HHSF223201810201C); PI: Simon; Federal Drug Agency; total direct costs: $4,899,783; Co-investigator, 0.20 FTE; 9/30/2018 - 9/29/2021

14. Predictive Modeling: The Role of Opioid Use in Suicide Risk (R01 DA0477724); PI: Yarborough; National Institute of Mental Health; total direct costs: $117,409; Co-investigator, 0.05; FTE; 8/15/2018 - 6/30/2021

15. Mental Health Research Network: Computational Modeling to Predict Suicidal Behavior (3U19MH092201-07S1); PI: Simon; National Institute for Mental Health; total direct costs: $402,830; Co-investigator, 0.10 FTE; 7/1/2017 - 6/30/2019

16. Stat Core Opioid PMR 1B (None); PI: McBurnie; Campbell Alliance, Ltd (now InVentive); total direct costs: $2,932,221; Site PI and Statistical Coordinating Center Co-Lead, 0.25 FTE; 10/1/2016 – 11/30/2018.

17. Evaluation of risk of neural tube defects among live births exposed to maternal prescription opioids during early pregnancy (None); PI: Toh; Federal Drug Administration; total direct costs: $470,212; Co-investigator, 0.10 FTE, 9/30/2016 - 9/28/2019

18. Mental Health Research Network: Development of a Population-Based Risk Calculator for Suicidal Behavior (U19 MH092202-05S1); PI: Simon; National Institute for Mental Health; total direct costs: $438,545; Co-investigator, 0.15 FTE, 7/1/2015 - 6/30/2017

19. Moderate Hypertension in Pregnancy: Safety and Effectiveness of Treatment (R01 HD082141-02); PI: Dublin; National Institute of Child Health and Human Development; total direct costs: $3,972,752; Co-investigator, 0.30 FTE, 7/1/2015 - 6/30/2019

20. Alcohol-Related Care & Outcomes for Outpatients with HIV in a National VA Cohort (R21 AA022866); PI: Bradley, Williams; National Institute of Alcohol Abuse and Alcoholism; total direct costs: $286,668; Co-investigator, 0.10 FTE, 5/1/2014 - 4/30/2016.

21. Computable Algorithms for Identifying Opioid Abuse and Addiction (None); PI: Carrel; Campbell Alliance, Ltd; total direct costs: $872,441; Co-investigator, 0.15 FTE; 5/1/2015 – 4/31/2016.

22. Pragmatic Trial of Population-based Programs to Prevent Suicide Attempt (UH3 MH007755-02); PI: Simon; National Institute of Mental Health; total direct costs: $5,186,260; Co-investigator, 0.15 FTE; 9/16/2014 – 7/31/2018.

23. Mental Health Network II (U19 MH092201); PI: Simon; National Institutes of Mental Health; total direct costs: $4,618,497; Co-investigator, 0.05 FTE; 8/1/2014 - 6/30/2019.

24. Examining Longitudinal Change in BMI for Youth Treatment with Second Generation Antipsychotic Medications (HHSF223200910006I); PI: Penfold; Federal Drug Administration; total direct costs: $225,000; Co-investigator, 0.05 FTE; 07/01/2014 - 12/31/2015.

25. Evaluation of Group Health's Multi-faceted Chronic Opioid Therapy Risk Reduction Initiative (213-109.001); PI: Von Korff; Pfizer; total direct costs: $120,858; Co-Investigator, 0.10 FTE; 05/01/2014 - 04/30/2015

26. Evaluation of a Health Plan Initiative to Mitigate Chronic Opioid Therapy Risks (IHS-1306-02198); PI: Von Korff; Patient-Centered Outcomes Research Institute (PCORI); total direct costs $1,279,579; Co-Investigator, 0.20 FTE; 05/01/2014 - 04/30/2017

27. Evaluation of Quality Measures for Brief Alcohol Interventions (AA020894-01A1); PI: Bradley; National Institute on Alcohol Abuse and Alcoholism; total direct costs: $255,161; Co-investigator, 0.15 FTE; 07/05/2012-12/30/2014

28. Suicidal Ideation Onset Following Antidepressant Initiation (SRG-0-008-11); PI: Penfold; American Foundation for Suicide Prevention; total direct costs $74,997 ; Co-investigator, 0.12 FTE; 10/01/2012-01/31/2015

29. Treatment Patterns and Clinical Outcomes Associated with Augmentation Therapy in Major Depressive Disorder (CN138-673); PI: Penfold; Grant from Bristol Meyers Squibb; total direct costs; $103,120 ;Co-investigator, 0.20 FTE; 02/01/2012 - 08/31/2012

30. Studying Colorectal Cancer Effectiveness of Screening Strategies (U54CA163261); PI: Rutter; National Cancer Institute; total direct costs: $3,572,022; Co-investigator, 0.25 FTE; 09/20/2011-05/31/2016

31. Practice Variation in High-and Low-value Treatments for Mood Disorders: Mental Health Research Network: A Population-Based Approach to Transform Research (U19 MH092201); PI Simon; National Institute of Mental Health; total direct costs $584,157 ; Co-investigator, 0.10 FTE; 09/24/2010-07/31/2014

32. Transition to Long-Term Opioid Use among Older Adults with Chronic Pain (1R01AG034181); PI: Von Korff; National Institute on Aging; total direct costs $2,158,133; Co-investigator, 0.25 FTE; 05/15/2010-04/30/2015

33. Optimizing an Online Motivational Tobacco Cessation Program (R01 CA138598); PI: McClure; National Cancer Institute; total direct costs $1,728,487; Co-investigator, 0.10 FTE; 03/01/2009-12/31/2013

34. Cognitive Behavioral Therapy for Arthritis Pain and Insomnia in Older Adults (R01AG031126); PIs: Vitiello, Von Korff and McCurry; National Institute on Aging; total direct costs $992,432; Co-investigator, 0.25 FTE; 09/01/2008-07/31/2014

35. Learning Adaptive Treatment Strategies in Mental Health (R01MH080015); PI: Murphy; National Institute of Mental Health; Post-doctoral Research Fellow, 1.00 FTE; 5/1/2007-4/30/2012

36. Vaccine Safety Datalink (VSD) (200-2002-00732); PI: Jackson; Centers for Disease Control and Prevention (CDC); Co-investigator, 0.20 FTE; 10/01/2002 - 09/19/2012

10. CONFERENCES and SYMPOSIUMS: (Like presentations grouped; * indicates invited presentation)

1. *Risk prediction models for suicide prevention research, University of Washington Institute for Medical Data Science (IMDS) seminar series (11/2024)

2. *Developing clinical risk prediction models to better target suicide prevention care, University of Washington Department of Biostatistics seminar series (2/2024)

3. *Statistical opportunities and challenges in the mental health research network, American Statistical Associations Section on Statistics in Mental Health Research webinar series (10/2023)

4. *Risk prediction models for suicide prevention research. Melbourne University, School of Population and Global Health (12/2022)

5. *Ranking Tailoring Variables for Constructing Individualized Treatment Rules. Invited JSM presentation (8/2022)

6. *Invited PCT Grand Rounds, NIH Collaboratory: Population-based outreach to prevent suicidal behavior among outpatients reporting frequent suicidal ideation (9/2021)

7. *Emerging statistical challenges and opportunities in mental health research Invited JSM 2021 session (8/2021)

8. *Pragmatic trial design using electronic health records data CTN Webinar Series: Using Real World Data in Substance Use Disorder Clinical Research (7/2021)

9. *Ranking tailoring variables for constructing individualized treatment rules Statistics 2021 Canada conference (7/2021)

10. *Performance of suicide risk prediction models: comparing random forest, logistic regression (with lasso) and neural networks FDA OSE Safety Seminar (7/2021)

11. *Using predictive analytics to design a suicide prevention trial Australian Alliance (12/2020)

12. *Using real-world data to improve trial design 12th annual Penn Conference on Statistical Issues in Clinical Trials (4/2019)

13. Validating a Computable Phenotype: Should Results Change a Trial's Pre-Specified Primary Outcome? NIH Collaboratory Grand Rounds (11/2018)

14. *Using EHR data to design pragmatic clinical trials Joint Statistical Meetings, Vancouver, BC (7/2018)

15. *Using EHR data to target suicide prevention care Joint International Society of Clinical Biostatistics and Australian Statistical Conference, Melbourne, VIC (8/2018)

16. *Using EHR data to target suicide prevention care Eastern North American Region of the International Biometric Society, Atlanta, GA (3/2018)

17. Bringing machine learning to the point of care to inform suicide prevention NIH Collaboratory Grand Rounds (10/2017)

18. Bringing machine learning to the point of care to inform suicide prevention Kaiser Permanente Washington Health Research Institute, Seattle, WA (9/2017)

19. *Leveraging Electronic Medical Records to Better Target Suicide Prevention IMPACT IV Symposium, Raleigh, NC, (11/2016)

20. *Using EHR data in Epidemiology research Guest Lecture, Epidemiology 528, Department of Epidemiology, University of Washington, (11/2016)

21. *Outcome-adaptive lasso: variable selection for causal inference*, Workshop on Discovery of causal structure in high dimensions, Montreal, QC (6/2018)

22. *Outcome-adaptive lasso: variable selection for causal inference* Atlantic Causal Inference Conference, Pittsburgh, PA (5/2018). Invited presentation as the highlighted *Biometrics* paper

23. *Outcome-adaptive lasso: variable selection for causal inference* Fred Hutchinson Cancer Research Center, Seattle, WA, (12/2016)

24. *Data-adaptive variable selection* 2nd Seattle Symposium on Health Care Data Analytics, Seattle, WA, (10/2016)

25. *Variable selection for Causal inference* Causal inference working group, Biostatistics Department, University of Washington, Seattle, WA, (1/2016)

26. *Variable selection for causal inference*, Conference of the Western North American Region of the International Biometric Society, Honolulu, HI, USA (6/2014)

27. *Variable selection for causal inference*, Simon Fraser University, Burnaby, BC, USA (4/2014)

28. *Health science research using data collected from electronic health records - depression disparities*, Annual Biomedical Research Conference for Minority Students, Seattle, WA, (11/2015)

29. *Health science research using data collected from clinical care*, Data Science to Data Sense Symposium, Sponsored by the Fred Hutchinson Cancer Research Center, Seattle, WA, (05/2015)

30. *Constructing dynamic treatment regimes*, Program in Health Economics and Outcomes Methodology, Seattle, WA, (01/2015)

31. *Integrating Multiple Imputation and the Bootstrap*, Joint statistical meetings, Boston, MA (8/2014)

32. *Framework for Integrating Multiple Imputation and the Bootstrap*, Fred Hutchinson Cancer Research Center, Seattle, WA, USA (12/2013)

33. *Marginal Structural Modeling to Estimate the Effect of Long-term Physical Activity on Cardiovascular Disease and Mortality*, Group Health Research Institutes, Seattle, WA, USA (09/2013)

34. *Multiple Imputation Strategy for Sequential Multiple Assignment Randomized Trials*, Joint Statistical Meetings, Montreal, QC, CAN (08/2013)

35. *Data Mining for Adverse Events in the Vaccine Safety Datalink Collaboration*, Joint Statistical Meetings, San Diego, CA, USA (08/2012)

36. *Accommodating Missing Data when Constructing Dynamic Treatment Regimes*, International Chinese Statistical Association, Applied Statistics Symposium, Boston, MA, USA (6/2012)

37. *Estimating the Optimal Dynamic Antipyschotic Treatment Regime: Evidence from the CATIE Schizophrenia Study*, Annual meeting for the Society of Clinical Trials, Miami, FL, USA (05/2012)

38. *Introduction to Sequential Multiple Assignment Randomized Trials*, UW Biostatistics, Clinical Trials Working Group, Seattle, WA, USA (3/2012)

39. *Constructing Dynamic Treatment Regimes: Evidence from the Clinical Antipsychotic Trials of Intervention and Effectiveness*, Monash University, Department of Epidemiology and Preventive Medicine, Melbourne, VIC, Australia (12/2011)

40. *The Role of Data Mining in Post-licensure Vaccine Safety Surveillance*, 2011 International Workshop on Pharmacoepidemiology and Biostatistics, Seattle, WA, USA (12/2011)

41. *Multiple Imputation Strategy for Sequential Multiple Assignment Randomized Trials*, University of Washington, Department of Biostatistics, Seattle, WA, USA (10/2011)

42. *Introduction to Semiparametric Theory*, McGill University, Reinforcement Learning Lab, Montreal, QC, CAN (10/2010)

43. *Learning the Similarity Matrix for Spectral Clustering*, 5th Workshop on Reinforcement Learning, Barbados (03/2010)

44. *Using Rienforcement Learning to Inform Clinical Decision Making, some practical considerations*, McGill University, Reinforcement Learning Lab, Montreal, QC, CAN (03/2010)

45. *Estimating Optimal Dynamic Treatment Regimes: An Application to Schizophrenia*, Group Health Research Institute, Seattle, WA, USA (03/2010)

46. *Missing Data Methods in Epidemiologic Studies*, Joint Statistical Meetings, Washington, DC, USA (08/2009)

47. *Learning the Similarity Matrix for Spectral Clustering*, Colloque de statistique de Montréal, SRM/ISM/GERAD, Montreal, QC, CAN (03/2009)

48. *Introduction to Spectral Clustering and Variable Weighting*, McGill University, Reinforcement Learning Lab, Montreal, QC, CAN (01/2009)

49. *Estimating the Reduction in Cardiovascular Disease Mortality Risk Due to Long Term Physical Activity in the Framingham Heart Study*, American Heart Association Scientific Sessions, New Orleans, LA, USA (11/2008)

50. *Estimating Causal Effects from Epidemiological Data*, Monash University, Department of Epidemiology and Preventive Medicine, Melbourne, VIC, Australia (10/2008)

51. *Practical Issues in Fitting Marginal Structural Models to Estimate the Effect of Lifestyle Risk Factors on Disease* , Australian Statistical Conference, Melbourne, VIC, Australia (06/2008)

52. *Using Graphs to Learn from Data*, Cambridge University, Statisics Lab, Centre for Mathematical Sciences, Remote connection from Melbourne, VIC, Australia to Cambridge, UK (02/2008)

53. *Learning in Spectral Clustering*, University of Washington, Statistics Department, Seattle, WA, USA (11/2006)
54. *Learning in Spectral Clustering*, National Institute for Statistical Sciences, Raleigh, NC, USA (03/2006)
55. *Learning in Spectral Clustering*, AT&T Bell Labs, Middletown, PA, USA (03/2006)
56. *Learning in Spectral Clustering*, University of California Los Angeles, Statistics Department, Los Angelos, CA, USA (03/2006)

57. *Regularized Spectral Learning* , University of Washington, Statistics Department, Seattle, WA, USA (06/2005)

58. *Spectral Energy Minimization for Semi-Supervised Learning*, University of Washington, Unsupervised Learning Working Group, Seattle, WA, USA (05/2005)

59. *Unsupervised Learning in Spectral Clustering*, Unsupervised Learning Working Group, University of Washington, Seattle, WA, USA (10/2004)

60. *Positional Estimation within the Latent Space Model for Networks*, University of Washington, Students in Statistics and the Social Sciences, Seattle, WA, USA (05/2004)

61. `Latentnet` *an* R *package*, University of Washington, Social Networks Working Group, Seattle, WA, USA (10/2003)

62. *Applying the Latent Space Model to Social Networks*, University of Washington, Statistics Department, Seattle, WA, USA (06/2003)

∗ invited presentation

11. PROFESSIONAL SERVICE:

Panelist at Technology Access Foundation's Women in Science Symposium, 04/2015

Conference session chairs

Developing and deploying prediction models to inform clinical care session of 2018 KPWHRI Data Analytics Symposium

Organized and Chaired *Methods for prediction and inference using electronic health records data* session of 2018 KPWHRI Data Analytics Symposium

Joint Statistics Meetings, 2013, 2014

Annual meeting of the Society of clinical trials, 2012

Local service and involvement, GHRI/KPWHRI

KPWHRI Strategic pillar steering group for increasing diversity in KPWHRI's workforce Member (6/2021-9/2023) and co-chair (10/2023-06/30/2024)

Chair collaborative biostatistician search 2022

Organizer for peer-mentoring program within the Biostatistics Unit 2015-2012

Member of collaborative biostatistician search 2020

Chair of collaborative biostatistician search 2018

Co-chair of investigator biostatistician search 2017-2018

Member of Committee on Scientific Excellence and Engagement, 6/2012 - 9/2015

Member of Biostatistics Investigator Search Committee, 2013, 2014, 2017

Organizer for Junior Investigator Group (JIG), 12/2010 - 1/2014

Volunteered at Group Health Annual Meeting, 10/2012

Member of Biostatistician (non-investigator) search committee, 2011, 2020

Member of Strategic Planning and Development Interdisciplinary Involvement Committee, 01/2012 - 03/2012

Member of Committee to assess biostatistics help request process, 04/2011 - 09/2011

Local service and involvement, Department of Biostatistics, University of Washington

Grader for UW Department of Biostatistics PhD Applied Statistics Examination, 2013, 2021

Local service and involvement, McGill University

Founder and organizer of reading group on causal inference, 2009-2010

Biweekly reading group discusses current papers on causal inference methodology and applications of these methods.

Multidisciplinary group, members include students, post-docs and professors from biostatistics, epidemiology, statistics and computer science.

Founder and Organizer of reading group on semi-parametric modelling, 2009-2010

12. TEACHING HISTORY:

Big picture causal inference for electronic health records based research. Guest Lecture Mental Heatlth Research Network T32 Postdoctoral Fellows, Nov 2023.

Curating clinical data for research purpose. Guest lecturer, Health Services 525 March 2022

Using clinical data to conduct observational studies. Guest lecturer, Health Services 525 April 2022

Introduction to marginal structural models. Guest lecturer, Epidemiology 528   May 2022
Epidemiology Department, University of Washington

Designing and analyzing observational studies using data collected from clinical care Guest lecturer, Health Services 525   April 2020
Department of Health Systems and Population Health , University of Washington

Data curation in studies using clinical data for research. Guest lecturer, Health Services 525 March 2022
Department of Health Systems and Population Health , University of Washington

Short course on using electronic health records data for research, Co-taught 11/15/2020
6th Seattle Symposium in Biostatistics: Precision Health in the Age of Data Science
Seattle, WA, University of Washington

Independent study, Biostatistics Graduate student Nina Galanter   Spring 2020

Guest lecturer, Epidemiology 528   May 2020
Epidemiology Department, University of Washington
Marginal structural models: example physical activity and CVD

Guest lecturer, Epidemiology 528   May 2020
Epidemiology Department, University of Washington
Using data collected during clinical care for epidemiological research

Guest lecturer, Epidemiology 533   May 2016
Epidemiology Department, University of Washington
Use of Propensity score in pharmaco(epidemiology) research

Guest lecturer, Biostat 111   Jun 2015
Biostatistics Department, University of Washington
Using data collected during clinical care to prevent suicide attempts and death

Instructor   Aug 2007 - Nov 2007
Biostatistics Collaboration of Australia, Linear Models
Teaching Assistant   Feb 2007 - May 2007
Biostatistics Collaboration of Australia, Probability and Distribution Theory

Tutor   Sept 2003 - Dec 2006
Statistics Tutoring Center, Department of Statistics, University of Washington

Teaching Assistant   Jan 2002 to Dec 2006
Department of Statistics, University of Washington

Undergraduate introductory statistics course for non majors, Fall 2006
Graduate level non parametric statistics course, Spring 2006
Undergraduate introductory statistics course, Fall 2003
Undergraduate introductory statistics course for non majors, Winter 2002

13. ADVISING and FORMAL MENTORING:

a) PhD Dissertation, chair: Not applicable

b) Masters Theses, chair: Not applicable

c) Mentored Scientists and Postdocs:

- Individuals currently mentored

   Yates Coley, PhD, Primary KPWHRI mentor 2/2020 - present
      CATALyst K12 Scholar mentoring committee member, 1/2019- 1/2020

   Maricela Cruz, PhD, KPWHRI co-mentor 2/2020 - present

   Ablisola Idu, MS, KPWHRI co-mentor , 4/2021- present

   Gwen Lapham, PhD, KPWHRI mentoring committee member, 1/2019- present

   Brian Williamson, PhD, Primary KPWHRI mentor 4/2022 - present

- Individuals mentored previously

   Aruna Kamineni, PhD, KPWHRI co-mentor , 6/2020- 6/2023.

   Lu Chen, PhD. Group Health Foundation Postdoc; primary co-mentor, 9/2016-7/2018

- Mentoring programs

   Mentor with American Statistical Association's Diversity Mentoring Program, 8/2020 - 7/2022, 8/2024 - present

   Mentor with Washington State Opportunity Scholarship SHINE program, 2016

   Co-mentor with Maricela Cruz through SummerStatSeattle (led out of Fred Hutch) 2023

d) MS Committees in non-chair roles: Not applicable

e) PhD Committee in non-chair roles:

   Zeyu Bian, PhD in Biostatistics, Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, expected 2022

   Julie Richards, Department of Health Services, University of Washington, 2019

   Elisa Sheng, Department of Biostatistics, University of Washington, 2015

f) Other Mentoring

   Research Advisor for Nina Galentar, graudate student research assistant, 3/2020-present
   Research Advisor for Jiacheng Wu, graudate student research assistant, 9/2018-3/2020

g) Academic Advising: Not applicable

h) KPWHRI Biostatistics Division Supervision

   Melissa Anderson, MS, 6/2017-2020, 5/2022 - present

   Eric Johnson, MS, 10/2014-10/2016, 5/2022 - present

   Linn Abraham, MS, 3/2021 - present

   Laura Ichikawa, MS, 3/2021-present

   Maricela Cruz, PhD 3/2022 - present

   Noorie Hyun, PhD 11/2021 - present

   Annie Piccoreli, PhD, 1/2023-12/2024

   Chloe Krakauer, PhD, 3/2021-2/2023

Jane Lange, PhD, 2013-2015

Jing Zhuo, MS, 3/2021-4/2022

Julia Smith, MS, 3/2021-3/2022

Rod Walker, MS, 10/2014-3/2020, 3/2021-5/2022

Rob Wellman, MS, 3/2021-5/2022