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DATE OF PREPARATION

February 19, 2026

EDUCATION

- 2011 – 2015** **Ph.D. Epidemiology** (Committee chair: Gregory A. Wellenius ScD)
Brown University, School of Public Health, Providence RI
Thesis: Patterns and Side Effects of Lipid Lowering Therapy in
Children Ages 8 to 20
- 2006 – 2007** **MPH, Biostatistics and Epidemiology**
Tufts University School of Medicine, Boston, MA
- 2002 – 2006** **BA, Biology and Community Health**
Tufts University, Medford MA

POSTDOCTORAL TRAINING

- 2015 – 2017** **National Institute of Mental Health, T-32**
Harvard Medical School, Department of Health Care Policy
Boston, MA

PROFESSIONAL APPOINTMENTS

- 2024 – present** **Manning Assistant Professor (Tenure Track)**
Department of Epidemiology
Brown University School of Public Health
- 2017 – present** **Research Associate**
Population Studies Training Center (PSTC)
Brown University
- 2019 – 2024** **Assistant Professor (Tenure Track)**
Department of Epidemiology

Brown University School of Public Health

2017 – 2020

K-12 Scholar

Center for Evidence in Health Synthesis
Brown University School of Public Health

2018 – 2019

Assistant Professor (Research)

Department of Health Services, Policy and Practice
Brown University School of Public Health

2017 – 2018

Investigator (Research)

Department of Health Services, Policy and Practice
Brown University School of Public Health

2012 – 2015

Research Analyst

Providence Veterans Administration, Providence RI

PEER REVIEWED JOURNAL ARTICLES

* denotes mentee serving as first or second author

1. Radjabova K, **Joyce NR**, Hsu YC, McBurney SH, Oganisian A, Zullo AR. Concordance Between the Minimum Data Set Kidney Impairment I1500 Item and eGFR Records in Nursing Homes. *Journal of the American Medical Directors Association*. In Press.
2. *Roberston SE, **Joyce NR**, Steingrimsson JA, Gravenstein S, Dahabreh IJ. Extending inferences from a cluster randomized trial to a target population. *American Journal of Epidemiology*. In Press.
3. Zullo AR, Balog S, Khan MA, Pfeiffer MR, Riester MR, Curry AE, Beaudoin FL, Oganisian A, Marshall BD, Dow PM, Dana BA, **Joyce NR**. Adverse Drug Events Associated with Opioid Treatment for Pain After Motor Vehicle Crash. *J Pain Res*. 2026;19:1-14
<https://doi.org/10.2147/JPR.S529856>
4. Lu FW, Zullo AR, Lu FW, Zullo AR, Curry AE, Pfeiffer MR, Khan MA, **Joyce NR**. Linkage of Medicare insurance claims to police-reported motor vehicle crashes: advancing traffic safety research in older adult populations. *Inj Epidemiol*. 2026 Feb 6. doi: 10.1186/s40621-026-00658-5. Epub ahead of print. PMID: 41645332.
5. Khan MA, Munshi MN, Slyne C, **Joyce NR**, Zullo AR. Reply to: "Comment on: Agreement Between Fingerstick Blood Glucose and Continuous Glucose Monitor Measures". *J Am Geriatr Soc*. 2025 Nov 19. doi: 10.1111/jgs.70202. Epub ahead of print. PMID: 41257339.
6. *Robertson SE, Steingrimsson JA, **Joyce NR**, Stuart EA, Dahabreh IJ. Center-specific causal inference with multicenter trials: reinterpreting trial evidence in the context of each participating

- center. *Stat Methods Med Res.* 2025 Dec;34(12):2330-2347. doi: 10.1177/09622802251380624. Epub 2025 Oct 21. PMID: 41118457.
7. Khan MA, Munshi MN, Slyne C, **Joyce NR**, Zullo AR. Reply to: "The Unseen Burden: Undiagnosed Hypoglycemia and the Need for CGM in Long-Term Geriatric Care". *J Am Geriatr Soc.* 2025 Oct 17. doi: 10.1111/jgs.70147. Epub ahead of print. PMID: 41104766.
 8. Khan MA, Munshi MN, Slyne C, **Joyce NR**, Zullo AR. Agreement Between Fingerstick Blood Glucose and Continuous Glucose Monitor Measures Among Long-Term Care Facility Residents. *J Am Geriatr Soc.* 2025 Nov;73(11):3369-3375. doi: 10.1111/jgs.70024. Epub 2025 Aug 2. PMID: 40751471; PMCID: PMC12372960.
 9. Khan MA, **Joyce NR**, Pfeiffer MR, Riestler MR, Ott BR, Oganisian A, Curry AE, Margolis SA, Zullo AR. Effects of Initiating Different Antidepressant Subclasses on Motor Vehicle Crash Risk Among Older Adults With Depression. *J Am Geriatr Soc.* 2025 Aug;73(8):2397-2409. doi: 10.1111/jgs.19527. Epub 2025 May 20. PMID: 40390384.
 10. Zullo AR, Riestler MR, D'Amico AM, Bhuma MR, Khan MA, Curry AE, Pfeiffer MR, Margolis SA, Ott BR, Bayer TA, **Joyce NR**. Medication Changes Among Older Drivers Involved in Motor Vehicle Crashes. *JAMA Netw Open.* 2024 Oct 1;7(10):e2438338. doi: 10.1001/jamanetworkopen.2024.38338. PMID: 39382896.
 11. **Joyce NR**, Lombardi LR, Pfeiffer MR, Curry AE, Margolis S, Ott BR, Zullo AR. Implications of using administrative healthcare data to identify risk of motor vehicle crash-related injury: the importance of distinguishing crash from crash-related injury. *Inj. Epidemiol.* 2024 Aug 12;11(1):38. doi: 10.1186/s40621-024-00523-3. PMID: 39135173; PMCID: PMC11318118.
 12. Zullo AR, Khan MA, Pfeiffer MR, Margolis SA, Ott BR, Curry AE, Bayer TA, Riestler MR, **Joyce NR**. Nonbenzodiazepine hypnotics and police-reported motor vehicle crash risk among older adults: a sequential target trial emulation. *Am J Epidemiol.* 2025 Mar 4;194(3):662-673. doi: 10.1093/aje/kwae168. PMID: 38957996; PMCID: PMC11879583.
 13. Weinberger KR, Veeravalli N, Wu X, Nassikas NJ, Spangler KR, **Joyce NR**, Wellenius GA. Long-term Impact of Tropical Cyclones on Disease Exacerbation Among Children with Asthma in the Eastern United States, 2000-2018. *Epidemiology.* 2024 May 1;35(3):398-407. doi: 10.1097/EDE.0000000000001728. Epub 2024 Apr 18. PMID: 38630511.
 14. Robertson SE, **Joyce NR**, Steingrimsson JA, Stuart EA, Aberle DR, Gatsonis CA, Dahabreh IJ. Comparing Lung Cancer Screening Strategies in a Nationally Representative US Population Using Transportability Methods for the National Lung Cancer Screening Trial. *JAMA Netw Open.* 2024 Jan 2;7(1):e2346295. doi: 10.1001/jamanetworkopen.2023.46295. PMID: 38289605; PMCID: PMC10828917.
 15. Riestler MR, D'Amico AM, Khan MA, **Joyce NR**, Pfeiffer MR, Margolis SA, Ott BR, Curry AE, Bayer TA, Zullo AR. Changes in the burden of medications that may impair driving among older adults before and after a motor vehicle crash. *J Am Geriatr Soc.* 2024 Feb;72(2):444-455. doi: 10.1111/jgs.18643. Epub 2023 Oct 31. PMID: 37905738; PMCID: PMC10922040.

16. **Joyce NR**, Robertson SE*, McCreedy E, Ogarek J, Davidson EH, Mor V, Gravenstein S, Dahabreh IJ. Assessing the representativeness of cluster randomized trials: Evidence from two large pragmatic trials in United States nursing homes. *Clin Trials*. 2023 Dec;20(6):613-623. doi: 10.1177/17407745231185055. Epub 2023 Jul 26. PMID: 37493171; PMCID: PMC10811279.
17. Daw JR, **Joyce NR**, Werner EF, Kozhimannil KB, Steenland MW. Variation in Outpatient Postpartum Care Use in the United States: A Latent Class Analysis. *Womens Health Issues*. 2023 Sep-Oct;33(5):508-514. doi: 10.1016/j.whi.2023.05.001. Epub 2023 Jun 8. PMID: 37301723.
18. **Joyce NR**, Khan MA, Zullo AR, Pfeiffer MR, Metzger KB, Margolis SA, Ott BR, Curry AE. Distance From Home to Motor Vehicle Crash Location: Implications for License Restrictions Among Medically-At-Risk Older Drivers. *J Aging Soc Policy*. 2024 Sep 2;36(5):948-962. doi: 10.1080/08959420.2022.2145791. Epub 2022 Dec 4. PMID: 36463560; PMCID: PMC10239525.
19. *Yorlets RR, Lurie MN, Ginsburg C, Hogan JW, **Joyce NR**, Harawa S, Collinson MA, Gómez-Olivé FX, White MJ. Validity of Self-Report for Ascertaining HIV Status Among Circular Migrants and Permanent Residents in South Africa: A Cross-Sectional, Population-Based Analysis. *AIDS Behav*. 2023 Mar;27(3):919-927. Doi: 10.1007/s10461-022-03828-w. Epub 2022 Sep 16. Erratum in: *AIDS Behav*. 2022 Nov 10;: PMID: 36112260; PMCID: PMC9974592.
20. Saade EA, Abul Y, McConeghy K, Edward Davidson H, Han L, **Joyce NR**, Canaday DH, Hsueh L, Bosco E, Gravenstein S. High-dose influenza vaccines for the prevention of hospitalization due to cardiovascular events in older adults in the nursing home: Post-hoc analysis of a cluster-randomized trial. *Vaccine*. 2022 Nov 8;40(47):6700-6705. Doi: 10.1016/j.vaccine.2022.09.085. Epub 2022 Oct 14. PMID: 36244879.
21. *Robertson SE, Steingrimsson JA, **Joyce NR**, Stuart EA, Dahabreh IJ. Estimating subgroup effects in generalizability and transportability analyses. *Am J Epidemiol*. 2024 Jan 8;193(1):149-158. doi: 10.1093/aje/kwac036. PMID: 35225329; PMCID: PMC11484600.
22. Gravenstein S, McConeghy KW, Saade E, Davidson HE, Canaday DH, Han L, Rudolph J, **Joyce NR**, Dahabreh IJ, Mor V. Adjuvanted Influenza Vaccine and Influenza Outbreaks in US Nursing Homes: Results From a Pragmatic Cluster-Randomized Clinical Trial. *Clin Infect Dis*. 2021 Dec 6;73(11):e4229-e4236. doi: 10.1093/cid/ciaa1916. PMID: 33400778.
23. **Joyce NR**, Pfeiffer MR, Zullo AR, Ahluwalia J, Curry AE. Individual and Geographic Variation in Driver's License Suspensions: Evidence of Disparities by Race, Ethnicity and Income. *J Transp Health*. 2020 Dec;19:100933. doi: 10.1016/j.jth.2020.100933. Epub 2020 Sep 14. PMID: 32953453; PMCID: PMC7500576.
24. Metzger KB, Sartin E, Foss RD, **Joyce NR**, Curry AE. Vehicle safety characteristics in vulnerable driver populations. *Traffic Inj Prev*. 2020 Oct 12;21(sup1):S54-S59. doi: 10.1080/15389588.2020.1805445. Epub 2020 Aug 27. PMID: 32851883; PMCID: PMC7910315.

25. Keeney T, **Joyce NR**, Meyers DJ, Mor V, Belanger E. Persistence of High-Need Status Over Time Among Fee-for-Service Medicare Beneficiaries. *Med Care Res Rev.* 2021 Oct;78(5):591-597. doi: 10.1177/1077558719901219. Epub 2020 Jan 23. PMID: 31971057; PMCID: PMC7375893.
26. Kulick ER, Wellenius GA, Boehme AK, **Joyce NR**, Schupf N, Kaufman JD, Mayeux R, Sacco RL, Manly JJ, Elkind MSV. Long-term exposure to air pollution and trajectories of cognitive decline among older adults. *Neurology.* 2020 Apr 28;94(17):e1782-e1792. doi: 10.1212/WNL.0000000000009314. Epub 2020 Apr 8. PMID: 32269113; PMCID: PMC7274848.
27. Kulick ER, Elkind MSV, Boehme AK, **Joyce NR**, Schupf N, Kaufman JD, Mayeux R, Manly JJ, Wellenius GA. Long-term exposure to ambient air pollution, APOE-ε4 status, and cognitive decline in a cohort of older adults in northern Manhattan. *Environ Int.* 2020 Mar;136:105440. doi: 10.1016/j.envint.2019.105440. Epub 2020 Jan 8. PMID: 31926436; PMCID: PMC7024003.
28. Belanger E, McHugh J, Meyers DJ, **Joyce NR**, Rahman M, Schwartz M, Baier RR, Mor V. Characteristics of Top-Performing Hospitals Caring for High-Need Medicare Beneficiaries. *Popul Health Manag.* 2020 Aug;23(4):313-318. doi: 10.1089/pop.2019.0145. Epub 2019 Dec 9. PMID: 31816254.
29. **Joyce NR**, Zullo AR, Ahluwalia JS, Pfeiffer MR, Curry AE. Driver's License Suspension Policies as a Barrier to Health Care. *Am J Public Health.* 2019 Dec;109(12):1692-1693. doi: 10.2105/AJPH.2019.305383. PMID: 31693414; PMCID: PMC6836782.
30. Keeney T, Belanger E, Jones RN, **Joyce NR**, Meyers DJ, Mor V. High-Need Phenotypes in Medicare Beneficiaries: Drivers of Variation in Utilization and Outcomes. *J Am Geriatr Soc.* 2020 Jan;68(1):70-77. doi: 10.1111/jgs.16146. Epub 2019 Aug 27. PMID: 31454082.
31. Bartels SA, Scott JA, Kelly JT, **Joyce NR**, Mukwege D, VanRooyen MJ. Psychosocial consequences of sexual violence in South Kivu Province, Democratic Republic of Congo. *International Scholars Journals: African Journal of Gender and Women Studies.* 2019 August; 4(8):001-006.
32. *Childs A, Zullo AR, **Joyce NR**, McConeghy KW, van Aalst R, Moyo P, Bosco E, Mor V, Gravenstein S. The burden of respiratory infections among older adults in long-term care: a systematic review. *BMC Geriatr.* 2019 Aug 5;19(1):210. doi: 10.1186/s12877-019-1236-6. PMID: 31382895.
33. McGarry BE, **Joyce NR**, McGuire TG, Mitchell SL, Bartels SJ, Grabowski DC. Association between High Proportions of Seriously Mentally Ill Nursing Home Residents and the Quality of Resident Care. *J Am Geriatr Soc.* 2019 Nov;67(11):2346-2352. doi: 10.1111/jgs.16080. Epub 2019 Jul 29. PMID: 31355443.
34. Mor V, Wagner TH, Levy C, Ersek M, Miller SC, Gidwani-Marszowski R, **Joyce NR**, Faricy-Anderson K, Corneau EA, Lorenz K, Kinosian B, Shreve S. Association of Expanded VA Hospice Care With Aggressive Care and Cost for Veterans With Advanced Lung Cancer. *JAMA Oncol.* 2019 Jun 1;5(6):810-816. doi: 10.1001/jamaoncol.2019.0081. PMID: 30920603; PMCID: PMC6567823.

35. Meyers DJ, Belanger E, **Joyce NR**, McHugh J, Rahman M, Mor V. Analysis of Drivers of Disenrollment and Plan Switching Among Medicare Advantage Beneficiaries. *JAMA Intern Med.* 2019 Apr 1;179(4):524-532. doi: 10.1001/jamainternmed.2018.7639. PMID: 30801625; PMCID: PMC6450306.
36. **Joyce NR**, Fishman J, Green S, Labiner DM, Wild I, Grabowski DC. Cost sharing for antiepileptic drugs: medication utilization and health plan costs. *Am J Manag Care.* 2018 Jun 1;24(6):e183-e189. PMID: 29939508.
37. **Joyce NR**, McGuire TG, Bartels SJ, Mitchell SL, Grabowski DC. The Impact of Dementia Special Care Units on Quality of Care: An Instrumental Variables Analysis. *Health Serv Res.* 2018 Oct;53(5):3657-3679. doi: 10.1111/1475-6773.12867. Epub 2018 May 7. PMID: 29736944; PMCID: PMC6153167.
38. **Joyce NR**, Schuler MS, Hadland SE, Hatfield LA. Variation in the 12-Month Treatment Trajectories of Children and Adolescents After a Diagnosis of Depression. *JAMA Pediatr.* 2018 Jan 1;172(1):49-56. doi: 10.1001/jamapediatrics.2017.3808. PMID: 29159404.
39. **Joyce NR**, Huskamp HA, Hadland SE, Donohue JM, Greenfield SF, Stuart EA, Barry CL. The Alternative Quality Contract: Impact on Service Use and Spending for Children With ADHD. *Psychiatr Serv.* 2017 Dec 1;68(12):1210-1212. doi: 10.1176/appi.ps.201700143. Epub 2017 Nov 15. PMID: 29137554; PMCID: PMC5852375.
40. Assaf AR, Bushmakina AG, **Joyce NR**, Louie MJ, Flores M, Moffatt M. The Relative Burden of Menopausal and Postmenopausal Symptoms versus Other Major Conditions: A Retrospective Analysis of the Medical Expenditure Panel Survey Data. *Am Health Drug Benefits.* 2017 Sep;10(6):311-321. PMID: 28975014; PMCID: PMC5620512.
41. Bortolin M, Morelli I, Voskanyan A, **Joyce NR**, Ciottoni GR. Earthquake-Related Orthopedic Injuries in Adult Population: A Systematic Review. *Prehosp Disaster Med.* 2017 Apr;32(2):201-208. doi: 10.1017/S1049023X16001515. Epub 2017 Jan 30. PMID: 28134070.
42. Schuler MS, **Joyce NR**, Huskamp HA, Lamont EB, Hatfield LA. Medicare Beneficiaries With Advanced Lung Cancer Experience Diverse Patterns Of Care From Diagnosis To Death. *Health Aff (Millwood).* 2017 Jul 1;36(7):1193-1200. doi: 10.1377/hlthaff.2017.0448. PMID: 28679805.
43. Grabowski DC, **Joyce NR**, McGuire TG, Frank RG. Passive Enrollment Of Dual-Eligible Beneficiaries Into Medicare And Medicaid Managed Care Has Not Met Expectations. *Health Aff (Millwood).* 2017 May 1;36(5):846-854. doi: 10.1377/hlthaff.2016.1082. PMID: 28461351.
44. **Joyce NR**, Mylonakis E, Mor V. Effect of Clostridium difficile Prevalence in Hospitals and Nursing Homes on Risk of Infection. *J Am Geriatr Soc.* 2017 Jul;65(7):1527-1534. doi: 10.1111/jgs.14838. Epub 2017 Apr 10. PMID: 28394408; PMCID: PMC9019852.
45. **Joyce NR**, Zachariah JP, Eaton CB, Trivedi AN, Wellenius GA. Statin Use and the Risk of Type 2 Diabetes Mellitus in Children and Adolescents. *Acad Pediatr.* 2017 Jul;17(5):515-522. doi: 10.1016/j.acap.2017.02.006. Epub 2017 Feb 21. PMID: 28232259; PMCID: PMC5499509.

46. Gidwani R, **Joyce NR**, Kinosian B, Faricy-Anderson K, Levy C, Miller SC, Ersek M, Wagner T, Mor V. Gap between Recommendations and Practice of Palliative Care and Hospice in Cancer Patients. *J Palliat Med*. 2016 Sep;19(9):957-63. doi: 10.1089/jpm.2015.0514. Epub 2016 May 26. PMID: 27228478.
47. Ziakas PD, **Joyce NR**, Zacharioudakis IM, Zervou FN, Besdine RW, Mor V, Mylonakis E. Prevalence and impact of Clostridium difficile infection in elderly residents of long-term care facilities, 2011: A nationwide study. *Medicine (Baltimore)*. 2016 Aug;95(31):e4187. doi: 10.1097/MD.0000000000004187. PMID: 27495022; PMCID: PMC4979776.
48. **Joyce NR**, Wellenius GA, Eaton CB, Trivedi AN, Zachariah JP. Patterns and predictors of medication adherence to lipid-lowering therapy in children aged 8 to 20 years. *J Clin Lipidol*. 2016 Jul-Aug;10(4):824-832.e2. doi: 10.1016/j.jacl.2016.03.002. Epub 2016 Mar 10. PMID: 27578113; PMCID: PMC5226262.
49. Mor V, **Joyce NR**, Coté DL, Gidwani RA, Ersek M, Levy CR, Faricy-Anderson KE, Miller SC, Wagner TH, Kinosian BP, Lorenz KA, Shreve ST. The rise of concurrent care for veterans with advanced cancer at the end of life. *Cancer*. 2016 Mar 1;122(5):782-90. doi: 10.1002/cncr.29827. Epub 2015 Dec 15. PMID: 26670795.
50. Hansen CK, Fisher J, **Joyce NR**, Edlow JA. A prospective evaluation of indications for neurological consultation in the emergency department. *Int J Emerg Med*. 2015 Dec;8(1):74. doi: 10.1186/s12245-015-0074-3. Epub 2015 Jul 25. PMID: 26223983; PMCID: PMC4514733.
51. **Joyce NR**, Wellenius GA, Dore DD, Newburger JW, Zachariah JP. Patterns of Lipid Lowering Therapy among Children Ages 8-20 Years. *J Pediatr*. 2015 Jul;167(1):113-9.e1. doi: 10.1016/j.jpeds.2015.04.004. Epub 2015 May 4. PMID: 25953004; PMCID: PMC4485924.
52. Bailey J, Hawker GA, Wood R, Cappelleri JC, Higgins V, **Joyce NR**, Hsu MA. Impact of physician specialty on classification of physician-perceived patient severity for patients with osteoarthritis. *Osteoarthritis Cartilage*. 2014 May;22(5):647-51. doi: 10.1016/j.joca.2014.03.001. Epub 2014 Mar 12. PMID: 24631922.
53. Burke LG, **Joyce NR**, Baker WE, Biddinger PD, Dyer KS, Friedman FD, Imperato J, King A, Maciejko TM, Pearlmutter MD, Sayah A, Zane RD, Epstein SK. The effect of an ambulance diversion ban on emergency department length of stay and ambulance turnaround time. *Ann Emerg Med*. 2013 Mar;61(3):303-311.e1. doi: 10.1016/j.annemergmed.2012.09.009. Epub 2013 Jan 24. PMID: 23352752.
54. Bartels SA, Scott JA, Leaning J, Kelly JT, **Joyce NR**, Mukwege D, Vanrooyen MJ. Demographics and care-seeking behaviors of sexual violence survivors in South Kivu province, Democratic Republic of Congo. *Disaster Med Public Health Prep*. 2012 Dec;6(4):393-401. doi: 10.1001/dmp.2012.66. PMID: 23241471.
55. Bartels S, Kelly J, Scott J, Leaning J, Mukwege D, **Joyce NR**, VanRooyen M. Militarized sexual violence in South Kivu, Democratic Republic of Congo. *J Interpers Violence*. 2013 Jan;28(2):340-58. doi: 10.1177/0886260512454742. Epub 2012 Aug 27. PMID: 22929338.

56. Chase M, Klasco RS, **Joyce NR**, Donnino MW, Wolfe RE, Shapiro NI. Predictors of bacteremia in emergency department patients with suspected infection. *Am J Emerg Med.* 2012 Nov;30(9):1691-7. doi: 10.1016/j.ajem.2012.01.018. Epub 2012 May 23. PMID: 22626814.
57. Bartels SA, Scott JA, Leaning J, Kelly JT, Mukwege D, **Joyce NR**, VanRooyen MJ. Sexual violence trends between 2004 and 2008 in South Kivu, Democratic Republic of Congo. *Prehosp Disaster Med.* 2011 Dec;26(6):408-13. doi: 10.1017/S1049023X12000179. PMID: 22559305.
58. Cocchi MN, Miller J, Hunziker S, Carney E, Saliccioli J, Farris S, **Joyce NR**, Zimetbaum P, Howell MD, Donnino MW. The association of lactate and vasopressor need for mortality prediction in survivors of cardiac arrest. *Minerva Anesthesiol.* 2011 Nov;77(11):1063-71. Epub 2011 May 11. PMID: 21597442.
59. Nelson BD, Collins L, VanRooyen MJ, **Joyce NR**, Mukwege D, Bartels S. Impact of sexual violence on children in the Eastern Democratic Republic of Congo. *Med Confl Surviv.* 2011 Oct-Dec;27(4):211-25. doi: 10.1080/13623699.2011.645148. PMID: 22416569.
60. Betz ME, Bernstein SL, Gutman DC, Tibbles CD, **Joyce NR**, Lipton RI, Schweigler LM, Fisher J. Public health education for emergency medicine residents. *Am J Prev Med.* 2011 Oct;41(4 Suppl 3):S242-50. doi: 10.1016/j.amepre.2011.06.009. PMID: 21961671; PMCID: PMC4531839.
61. Straszewski SM, Sanchez L, McGillicuddy D, Boyd K, Dufresne J, **Joyce NR**, Wolfe R, Lee AW, Fisher J, Mottley JL. Use of separate venipunctures for IV access and laboratory studies decreases hemolysis rates. *Intern Emerg Med.* 2011 Aug;6(4):357-9. doi: 10.1007/s11739-011-0568-9. Epub 2011 Apr 6. PMID: 21468698.
62. Chase M, **Joyce NR**, Carney E, Saliccioli JD, Vinton D, Donnino MW, Edlow JA. ED patients with vertigo: can we identify clinical factors associated with acute stroke? *Am J Emerg Med.* 2012 May;30(4):587-91. doi: 10.1016/j.ajem.2011.02.002. Epub 2011 Apr 27. PMID: 21524878.
63. Hansen CK, Fisher J, **Joyce NR**, Edlow JA. Emergency department consultations for patients with neurological emergencies. *Eur J Neurol.* 2011 Nov;18(11):1317-22. doi: 10.1111/j.1468-1331.2011.03390.x. Epub 2011 Apr 4. PMID: 21457175.
64. Sanchez LD, McGillicuddy DC, Volz KA, Fan SL, **Joyce NR**, Horowitz GL. Effect of two different FDA-approved D-dimer assays on resource utilization in the emergency department. *Acad Emerg Med.* 2011 Mar;18(3):317-21. doi: 10.1111/j.1553-2712.2010.00973.x. Epub 2011 Feb 25. PMID: 21352402.
65. Kennedy M, **Joyce NR**, Howell MD, Lawrence Mottley J, Shapiro NI. Identifying infected emergency department patients admitted to the hospital ward at risk of clinical deterioration and intensive care unit transfer. *Acad Emerg Med.* 2010 Oct;17(10):1080-5. doi: 10.1111/j.1553-2712.2010.00872.x. PMID: 21040109; PMCID: PMC3058807.
66. Volz KA, McGillicuddy DC, Horowitz GL, Wolfe RE, **Joyce NR**, Sanchez LD. Eliminating amylase testing from the evaluation of pancreatitis in the emergency department. *West J Emerg Med.* 2010 Sep;11(4):344-7. PMID: 21079706; PMCID: PMC2967686.

67. Donnino MW, Carney E, Cocchi MN, Barbash I, Chase M, **Joyce NR**, Chou PP, Ngo L. Thiamine deficiency in critically ill patients with sepsis. *J Crit Care*. 2010 Dec;25(4):576-81. doi: 10.1016/j.jcrc.2010.03.003. Epub 2010 Jun 19. PMID: 20646908.

WORK UNDER REVIEW

68. **Joyce NR**, Balog S, Gaither R, Pfeiffer M, Bhondoekhan F, Ott BR, Margolis SA, Curry AE, Zullo AR. Motor vehicle crash as an early signal of Alzheimer's disease and related dementias.
69. Dahabreh IJ, **Joyce NR**. Weighting to Estimate the Average Treatment Effect on the Treated in Observational Studies.

CONFERENCE PRESENTATIONS

1. Zhang S, Joyce NR, D'Amico AM, Zullo AR, Hayes KN. Risk of a Second Motor Vehicle Crash Following Antihypertensive Medication Changes Among Older Drivers. International Society for Pharmacoepidemiology 42nd Annual Meeting, August 29-September 2, 2026, Milan, Italy. Abstract no. 2339876.
2. Lu FW, **Joyce NR**, Balog S, Zullo AR, Bayer T. Post-Crash Healthcare Utilization Among People with and without Alzheimer's Disease and Related Dementias (ADRD). International Society for Pharmacoepidemiology 42nd Annual Meeting, August 29-September 2, 2026, Milan, Italy. Abstract no. 2356997.
3. Bhondoekhan F, Zullo AR, Ott BR, Pfeiffer MR, Margolis SA, Khan MA, Curry AE, **Joyce NR**. Motor Vehicle Crash Risk in Older Adults with Alzheimer's Disease After Acetylcholinesterase Inhibitor Initiation: A Sequential Target Trial Emulation. International Society for Pharmacoepidemiology Annual Meeting, August 22-26, 2025, Washington, D.C. Abstract no. 2057918.
4. Bhondoekhan F, Dow PM, Marshall BDL, Hayes KN, **Joyce NR**. Disparities in Nonpharmacologic Chronic Pain Treatments for Older Adults with Alzheimer's disease and Related Dementias. International Society for Pharmacoepidemiology Annual Meeting, August 22-26, 2025, Washington, D.C. Abstract no. 2057879.
5. Zullo AR, Balog S, Khan MA, Pfeiffer MR, Riester MR, Curry AE, Beaudoin FL, Oganisian A, Marshall BDL, Dow PM, Dana B, **Joyce NR**. Adverse Drug Events of Opioid Treatment Strategies for Pain after Motor Vehicle Crash. International Society for Pharmacoepidemiology Annual Meeting, August 22-26, 2025, Washington, D.C. Abstract no. 2050732.
6. Bhondoekhan F, Dow PM, Marshall BDL, Hayes KN, **Joyce NR**. Disparities in nonpharmacologic chronic pain treatments for older adults with Alzheimer's disease and related

dementias. Society for Epidemiological Research Annual Meeting, June 10-13, 2025, Boston, MA. Abstract no. 246557.

7. Cupp MA, **Joyce NR**, Beaudoin FL, Oganisian A, Zullo AR. Opioid and other analgesic use in older adults initiating a biologic disease-modifying therapy for treatment of autoimmune disease. Society for Epidemiological Research Annual Meeting, June 10-13, 2025, Boston, MA. Abstract no. 233747
8. Bhondoekhan F, Zullo AR, Ott BR, Pfeiffer MR, Margolis SA, Khan M, Curry AE, **Joyce NR**. Motor vehicle crash risk among adults with Alzheimer's disease following acetylcholinesterase inhibitor initiation: A target trial emulation. Society for Epidemiological Research Annual Meeting, June 10-13, 2025, Boston, MA.
9. Khan MA, Munshi MM, Slyne C, **Joyce NR**, Zullo AR. Agreement Between Fingertick Blood Glucose and Continuous Glucose Monitor Measurements Among Long-Term Care Facility Residents. Society for Epidemiological Research Annual Meeting, June 10-13, 2025, Boston, MA. Abstract no. 230031.
10. Khan MA, **Joyce NR**, Pfeiffer MR, Riester MR, Ott BR, Oganisian A, Curry AE, Margolis SA, Zullo AR. Effects of Initiating Different Antidepressant Subclasses on Motor Vehicle Crash Risk Among Older Adults with Depression. American Geriatrics Society Annual Meeting, May 8-10, 2025, Chicago, United States. Abstract no. 4246486.
11. Bhondoekhan F, Curry AE, Ott BR, **Joyce NR**. Incidence of Motor Vehicle Crashes among Adults with Mild to Moderate Alzheimer's Disease following Acetylcholinesterase Inhibitor Initiation. American Geriatrics Society Annual Meeting, May 8-10, 2025, Chicago, United States. Abstract no. 4247019.
12. Khan MA, **Joyce NR**, Pfeiffer MR, Margolis SA, Ott BR, Curry AE, Riester MR, Zullo AR. Comparative safety of antidepressants on motor-vehicle crash risk among older adults with depression: a sequential target trial emulation. Society of Epidemiologic Research (SER), Austin, Texas, June 18-21, 2024. Poster Presentation.
13. Zullo AR, Khan MA, Pfeiffer MR, Margolis SA, Ott BR, Curry AE, **Joyce NR**. Effect of non-benzodiazepine hypnotics on motor vehicle crashes among older adults: A Sequential Target Trial Emulation. International Society for Pharmacoepidemiology Conference, August 23-27, 2023. Halifax, Nova Scotia, Canada. Poster Presentation.
14. Khan MA, **Joyce NR**, Pfeiffer MR, Margolis SA, Ott BR, Curry AE, Konieczny K, Zullo AR. Effect of non-benzodiazepine hypnotics on motor vehicle crashes among older adults. Society for Epidemiologic Research Conference, June 13 – 16, 2023, Portland, OR. Poster Presentation.

15. Curry AE, Metzger KB, **Joyce NR**, Foss RD. Utilizing quasi-induced exposure methodology to identify high-risk young driver populations. Transportation Research Board (TRB) Annual Conference, 2020
16. **Joyce NR**, Zullo AR, Foss RD, Metzger KB, Wellenius GA, Curry AE The use of Quasi Induced Exposure to identify risk factors for motor vehicle crashes. International Conference on Health Policy Statistics. San Diego, CA. January 6, 2020. Abstract no. 307893.
17. Keeney T, Belanger E, Meyers DJ, **Joyce NR**, Mor V. Identifying Clinical Phenotypes and Outcome Variation Among High Need Medicare Beneficiaries Using Administrative Claims Data. Agency for Healthcare Research and Quality (AHRQ) NRSA Trainees Research Conference, 2019
18. Kulick ER, Boehme AK, **Joyce NR**, Schupf N, Elkind SVM, Manly JJ, Wellenius GA. Long-term Exposure to Ambient Air Pollution, APOE-4 status, and Trajectories of Cognitive Decline in a Cohort of Older Adults in Northern Manhattan. International Society for Environmental Epidemiology conference 2019
19. Belanger E, Keeney T, **Joyce NR**, Meyers DJ, Rahman M, Mor V. The Persistence of High-Need Status over Time- Implications for Fee-for-Service Medicare Beneficiaries. Poster Presentation at the Academy Health 2019 Annual Research Meeting. Washington, DC: June 2019.
20. **Joyce NR**, Pfeiffer MR, Zullo AR, Curry AE. Individual- and neighborhood-level variation in driver's license suspensions for non-driving-related offenses. American Public Health Association (APHA) Annual Conference. Philadelphia, PA. November 2-6, 2019. Abstract no. 433829. Oral podium presentation.
21. Keeney T, Belanger E, Meyers DJ, **Joyce NR**, Mor V. Identifying Clinical Phenotypes and Outcome Variation Among High Need Medicare Beneficiaries Using Administrative Claims Data. Agency for Health Care Research and Quality (AHRQ) NRSA Trainees Research Conference, 2019
22. Curry AE, Metzger KB, **Joyce NR**, Foss RD. Utilizing quasi-induced exposure (QIE) methodology to identify high-risk drivers. American Public Health Association (APHA) Annual Conference, 2019
23. Saad E, **Joyce NR**, Ogarek J, Davidson HE, Han L, Canaday D, Yassin A, Shireman T, Mor V, Gravenstein S. Comparative Effectiveness of High- versus Standard-Dose Influenza Vaccine on Hospitalization for Acute Myocardial Infarction in Nursing-Home Residents: A Post-hoc Analysis from a Large Cluster Randomized Trial. Infections Disease Week 2018
24. **Joyce NR**, Schuler MS, Hatfield LA Variation in treatment trajectories among children and adolescents after a diagnosis of depression. International Conference on Health Policy Statistics 2017

25. **Joyce NR**, Huskamp HA, Barry CL, Stuart EA, Greenfield SF, Duckworth K, Song Z, Chernew ME, Donohue JM. Effect of the Alternative Quality Contract on the Quality of Care for Diabetes Among Adults with Co-occurring Nicotine Dependence or a Substance Use Disorder. *Addiction Health Services Research*, 2016
26. **Joyce NR**, Mitchell SL, McGuire T, Bartels S, Grabowski D The Rise of Concurrent Care for Patients with Advanced Cancer in the Veterans Administration Health. *System Academy Health* 2016
27. **Joyce NR**, Zachariah JM, Eaton CB, Trivedi AN, Wellenius GA. Statin Use and the Risk of Diabetes Type II in Children Ages 8 to 20 with and without Dyslipidemia. *American Heart Association Epi and Lifestyle* 2016
28. **Joyce NR**, Barry CL, Hadland S, Greenfield SF, Donahue JM, Stuart EA, Huskamp HA. Effect of the Alternative Quality Contract on pediatric mental health and substance use disorder health care utilization and spending. *NIMH Mental Health Services Research* 2016
29. **Joyce NR**, Cote D, Gidwani R, Youssef R, Lorenz K, Levy C, Kinosian B, Ersek M, Miller S, Faricy-Anderson K, Wagner T, Mor V *Academy Health* 2015
30. **Joyce NR**, Mor V Prevalence of *Clostridium difficile* and Six-Month Follow-up in Nursing Home Patients Admitted from an Acute Care Hospital. *Academy Health* 2014
31. **Joyce NR**, Wellenius G, Dore D, Zachariah J Changes in Rates of Pharmacotherapy for Children with Familial Hypercholesterolemia between 2004 and 2010. *Society for Epidemiologic Research* 2013
32. **Joyce NR**, Dore D, Cai S, Makineni R, Intrator O, Dosa D Patterns in Opioid Initiation and Reported Daily Pain among Veterans in Community Living Centers between 2004 and 2009. *American Geriatrics Society* 2013
33. Hardy E, **Joyce NR**, Chimienti S, Tibbles C. Outcomes of Non-Occupational Post-Exposure Prophylaxis Program after Sexual Assault: 6 Years of Experience at an Urban Medical Center. *Society for Academic Emergency Medicine*, 2011
34. Mammen PE, Dominici P, Ngu D, **Joyce NR**. Barriers to Prenatal Care Among Women Presenting to the Emergency Department. *Society for Academic Emergency Medicine*, 2011
35. Chase M, Goldstein J, Pallin D, Selim M, Carmacho M, **Joyce NR**, O'Connor J, Edlow J. Predictors of Acute Stroke in ED Patients with Dizziness. *Society for Academic Emergency Medicine*, 2011
36. Petchy MF, **Joyce NR**, Mottley L, Peters A, Anderson P, Grossman S, Wolfe R, Ngo L. Characteristics Associated with Emergency Department Admission Rates. *Society for Academic Emergency Medicine*, 2011

37. Volz K, McGillicuddy D, Sanchez LD, Horowitz G, **Joyce NR**. Does Switching D-dimer Assays Result in Changes in Need for Computed Tomography Angiogram and Emergency Department Length of Stay in Patients Being Evaluated for Pulmonary Embolism? Society for Academic Emergency Medicine 2010
38. Betz M, Tibbles C, **Joyce NR**, Fisher J. Effect of an Integrated Public Health Curriculum in an Emergency Medicine Residency Society for Academic Emergency Medicine 2009
39. Lipton R, **Joyce NR**. Spatial-Temporal Relationships between Violence and Alcohol Outlets in Boston. Society for Academic Emergency Medicine 2009
40. Chase M, **Joyce NR**, Donnino M, Shapiro N. Does Time to Antibiotics Effect In Hospital Mortality and ICU Length of Stay in Patients With Bacteremia. Society for Academic Emergency Medicine 2009
41. Volz K, **Joyce NR**, Horowitz G, Fisher J, Wolfe R, McGillicuddy D, Sanchez L. Eliminating Amylase from the Evaluation of Pancreatitis in the Emergency Department. Society for Academic Emergency Medicine 2009
42. Straszewski S, Boyd K, DuFresne J, **Joyce NR**, Wolfe R, Sanchez L, McGillicuddy D, Mottley J. Use of Separate Venipunctures for IV Access and Laboratory Studies Decreases Hemolysis Rates and Overall ED Length of Stay. Society for Academic Emergency Medicine 2009
43. Chase M, **Joyce NR**, Carney E, Saliccioli J, Vinton D, Edlow J, Donnino M. Do Emergency Department Patients with Vertigo Need Emergent Magnetic Resonance Imaging? Society for Academic Emergency Medicine 2009
44. Burke LG, Baker WE, Biddinger PD, Dyer S, Friedman FD, Imperato J, **Joyce NR**, King A, Maciejko TP, Peralmutter MD, Sayah A, Zane RD, Epstein SK. The End of Ambulance Diversion: Changes in Emergency Department Length of Stay and Ambulance Turnaround Time. Society for Academic Emergency Medicine, 2009
45. **Joyce NR**, Tibbles C, Shrupp H and Fisher J. Availability of Emergency Contraception in Pharmacies without a Prescription. Society for Academic Emergency Medicine, 2008
46. Hurwitz A, Rosen C, **Joyce NR**, Mittelman A and Fisher J. Grade Inflation among United States Medical Schools. Society for Academic Emergency Medicine 2008
47. Ullman E, **Joyce NR**, Fisher F. Grade Inflation among United States Medical Schools. Society for Academic Emergency Medicine 2008
48. Chase M, Donnino M, Wood S, Shapiro N, **Joyce NR**, Velarde M. Model for Identifying Emergency Department Patients with MRSA Bacteremia. Society for Academic Emergency Medicine 2008

INVITED TALKS

- 2025 ACIC Hot Ones: Perspectives on teaching methods for causal inference.** American Causal Inference Conference, Society for Causal Inference, Huntington Place Convention Center, Detroit, MI.
- Causal estimands with transitory competing events.** Causal Inference Working Group, Brown University School of Public Health, Providence, RI.
- 2024 Methodological challenges (and some solutions) in identifying interventions that improve mobility for older adults.** T32 Epidemiology of Aging Seminar, University of Maryland School of Medicine, Baltimore, MD.
- Natural experiments in injury control and prevention research.** Injury Control Center for Biomedical Research Excellence (COBRE), Rhode Island Hospital, Providence, RI.
- Causal inference for the study of injury prevention: an introduction to counterfactuals and asking a causal question.** Injury Control Center for Biomedical Research Excellence (COBRE) Rhode Island Hospital, Providence, RI.
- 2020 Individual- and neighborhood-level variation in driver's license suspensions for non-driving-related offenses.** Stanford Computational Policy Lab, Stanford University, Stanford, CA.
- 2019 Individual- and neighborhood-level variation in driver's license suspensions for non-driving-related offenses.** Center for Injury Research Prevention (CIRP), Children's Hospital of Philadelphia, Philadelphia, PA.
- Generalizability of Pragmatic Trials.** Hebrew Senior Life/Brown Joint Seminar Series, Brown University School of Public Health, Providence, RI.
- Generalizing Findings from Cluster Randomized Trials.** Center for Gerontology and Health Care Research Brown Bag Series, Brown University School of Public Health, Providence, RI.
- 2017 The Impact of Dementia Special Care Units on Quality of Care: An Instrumental Variables Approach.** PHEnOM Seminar, University of Washington, Pharmaceutical Outcomes Research and Policy (PORPP), Seattle, WA.
- 2012 The Risk of Diabetes Associated with Statin Use in Children ages 8 to 20.** Health Economics Research Seminar, Harvard Medical School Department of Health Care Policy, Boston, MA.

CURRENT RESEARCH SUPPORT

Optimizing methadone treatment strategies for opioid use disorder in the era of fentanyl

Role on Project: Co-Investigator (MPIs: F. Beaudoin, R. Wightman, A. Zullo)

Funder: National Institute on Drug Abuse (NIDA)

Project Number: R01DA062186-01A1

Project Period: Sep 1st, 2025 – May 31st, 2030

Total Amount: \$4,314,395

Description: This study will create a unique linked database combining electronic health record and state administrative databases to enable an unprecedented evaluation into methadone treatment strategies and outcomes during a time of expanded and changing methadone flexibilities in a fentanyl-endemic area.

The risks and consequences of a motor vehicle crash in older adults with Alzheimer's Disease and Related Dementias

Role on Project: Principal Investigator

Funder: National Institutes of Health (National Institute on Aging)

Project Period: Aug 15th, 2022 – Jun 30th, 2026

Total Amount: \$3,018,027

Project Identifier: R01AG079295-01

Description: We use a novel data source of Medicare insurance claims linked to licensing, citation, and crash data for more than 1.5 million older drivers over a 13-year period to evaluate longitudinal changes in the risk of a crash and changes in the trajectory of health, health care utilization, and long-term care assistance following a crash, among older drivers with Alzheimer's Disease.

Methods for generalizing inferences from cluster randomized controlled trials to target populations

Role on Project: Site Principal Investigator (PI: I.Dahabreh)

Funder: National Library of Medicine

Project Period: Feb 4th, 2022 – Dec 31st, 2026 (NCE)

Total Brown Subaward Amount: \$275,892.74

Project Identifier: R01LM013616

Description: Collaboration with Harvard School of Public Health on the development of new methods; assist in the design, implementation, and interpretation of simulation studies; and co-lead the design, interpretation, and conduct of empirical analyses.

COMPLETED RESEARCH SUPPORT

Medications and the risk of motor vehicle crashes in older adults

Role on Project: Co-investigator (PI: A.Zullo)

Funder: National Institutes of Health (National Institute on Aging)

Project Period: Sep 15th, 2020 – May 31st, 2025 (NCE)

Total Amount: \$1,764,594

Project Identifier: R01AG065722

Description: To examine the effect of medication use on motor vehicle crashes in older drivers, and the extent to which medications disproportionately affect crash risk across driver subgroups and by medication adherence status.

Rhode Island Hospital injury COntrol center for Biomedical Research Excellence (COBRE): Core B

Role on Project: Site Principal Investigator (PI: M.Mello)

Funder: National Institutes of Health

Project Period: Apr 1st, 2022 – Jan 31st, 2025

Total Brown Subaward Amount: \$64,796.00

Project Identifier: 5P20GM139664-02

Description: COBRE will support the development of junior researchers into independent researchers capable of leading rigorous, innovative injury control research that changes practice and policy and improves health. This will be accomplished through the establishment of three cores to develop and sustain a multidisciplinary center of research excellence which provides mentorship and career development of early career faculty through research studies and a pilot study program.

Medications and the risk of motor vehicle crashes in older adults – AD/ADRD supplement

Role on Project: Co-investigator (PI: A.Zullo)

Funder: National Institutes of Health (National Institute on Aging)

Project Period: Jun 1st, 2022 – May 31st, 2023

Total Amount: \$368,458

Project Identifier: R01AG065722-03S1

Description: To examine the effect of medication use on motor vehicle crashes in older drivers, and the extent to which medications disproportionately affect crash risk across driver subgroups and by medication adherence status.

The effect of driving cessation on mental health outcomes and the transition to long-term-care among community dwelling older adults

Role on Project: Principal Investigator

Funder: Albert and Elaine Borchard Foundation on Law and Aging

Project Period: Jun 1st, 2020 – May 31st, 2021 (NCE through Dec 2021)

Total Amount: \$20,000

Description: The objective of this proposal is to examine the effect of driving cessation on mental health outcomes and transitions to long-term-care among older adults.

The effect of a driver's license suspension on access to health care

Role on Project: Principal Investigator

Funder: Office of the Vice President for Research (OVPR) – Internal seed funding

Mechanism: Seed Award

Project Period: Mar 1st, 2020 – Feb 18th, 2022

Total Amount: \$49,500

Description: The objective of this study is to understand the population of suspended drivers and the unintended consequences of a license suspension for accessing health care.

Guidelines and best practices for evaluating the causal effects of medications on motor vehicle crashes and driving outcomes using observational data

Role: Co-Investigator (awarded to Medications and Driving Working Group)

Funder: International Society for Pharmacoepidemiology

Project Period: Jan 1st, 2020 – Jan 31st, 2021

Amount: \$13,000

Description: The Medications and Driving Working Group will formally synthesize the existing observational literature examining medication exposures and motor vehicle crash outcomes to make principled recommendations that ultimately enable the construction of a formal evidence-based methodological framework for estimating the causal effects of medication use on motor vehicle crash.

Severe storms and asthma exacerbation among children

Role on Project: Co-Investigator (PI: K.Weinberger)

Funder: Robert Wood Johnson Foundation's (RWJF) Health Data for Action (HD4A)

Project Period: Nov 1st, 2019 – Oct 31st, 2020

Total Amount: \$0 in-kind contributions of data access and programmer support.

Description: To study the effect of severe storms on hospitalization and emergency department use among children and adolescents with asthma.

Population-level estimates of young drivers' engagement in risky driving behaviors and motor vehicle crash risk: an innovative method to adjust for driving exposure

Role on Project: Site Principal Investigator (PI: A.Curry)

Funder: NICHD (Sub to Children's Hospital of Philadelphia)

Project Period: Sep 1st, 2019 – August 31st, 2021 (NCE through Jun 2022)

Amount: \$30,771

Project Identifier: 1R21HD098276

Description: The overall objective of this study is to extend the utility of, apply, and evaluate Quasi-Induced Exposure (QIE) methodology to estimate young drivers' engagement in risky driving behaviors and exposure-adjusted crash risks.

Flublok study: stratified, cluster random assignment trial – RIV

Role on Project: Co-Investigator (PI: S.Gravenstein)

Funder: Sanofi Pasteur

Project Period: Apr 1st, 2019 – Sep 30th, 2023

Total Amount: \$324,450

Description: Brown University will provide all methodological, measurement design and statistical analysis associated with the proposed stratified, cluster random assignment trial of quadrivalent recombinant influenza vaccine (RIV4) in the nursing home setting.

Medications and risk of motor vehicle crashes in older drivers: data linkage and evaluation

Role on Project: Co-Investigator (PI: A.Zullo)

Funder: Brown University Office of the Vice President for Research (Seed Grant)

Project Period: Jan 1st, 2019 – Dec 31st, 2019

Total Amount: \$49,999

Description: After nearly three decades of research, data are scarce and controversy remains about the effects of medications on MVCs in older adults. A major barrier to progress has been the lack of detailed linked data on MVCs, prescription drug use, and age-related comorbidities. We propose to close this gap by, for the first time, linking detailed licensing and crash histories from over 2.3 million licensed drivers aged ≥ 65 to rich clinical and prescription drug data

Patient Centered Outcomes Research Institutional (PCORI) mentored career development program

Role on Project: Scholar (PI: T.Trikalinos)

Funder: Agency for Healthcare Research and Quality (Agency for Healthcare Research and Quality)

Project period: Oct 1st, 2017 – Jul 31st, 2020

Total Amount: \$461,980

Description: The objective of this program is to prepare scholars to apply comparative effectiveness research methods to patient-centered outcomes research.

High-cost, high-needs patient project

Role on Project: Co-Investigator (PI: V.Mor)

Funder: The Peterson Foundation

Project period: Feb 1st, 2017 – Sep 30th, 2019

Description: Identify effective strategies to improve care delivery and reduce cost for the growing population of high-cost, high-need Medicare patients.

T-32 training grant

Role on Project: Trainee (PI: T.McGuire)

Funder: National Institute of Mental Health

Project period: Aug 1st, 2015 – Jul 30th, 2017

Total Amount: \$1,160,146

Project Identifier: T32MH019733

Description: Support to continue the Harvard Training Program in Mental Health Policy. We aim to match each post-doctoral fellow with research experiences that offer an in-depth exposure to mental health care institutions, clinical circumstances, public policy structures and social science research methods so as to round out their research skills based on their disciplinary background.

Patterns of pharmacotherapy use in children with familial hypercholesterolemia: a real-world assessment

Role on Project: Principal Investigator

Funder: American Heart Association Pre-Doctoral Dissertation Grant

Project Period: Jun 1st, 2013 – May 31st, 2015

Description: The objective of this proposal was to identify patterns of prescribing and adherence to lipid lowering therapy in children, as well as evaluate the risk of diabetes type II, a risk that has been identified in adults but never in children.

PROPOSALS SUBMITTED

Novel Methods for Secondary Analysis of Linked Patient-Centered Outcomes Data

Role on Project: Co-Investigator (PI: R.Gutman)

Funder: PCORI

Project Period: Dec 1st, 2026 – Feb 28th, 2030

Total Award Amount: \$965,028

Project Identifier: TBD

Description: The project has three main aims: 1) It will develop methods for secondary analysis of linked datasets with time-to-event data and survey data when not all patients can be linked. 2) It will develop methods for causal analysis with linked datasets. 3) It will apply the methods to linked PCOR data.

Methods for generalizing inferences from cluster randomized controlled trials to target populations

Role on Project: Site Principal Investigator (PI: I.Dahabreh)

Funder: National Library of Medicine

Project Period: Apr 1st, 2026 – Mar 31st, 2031

Total Brown Subaward Amount: \$400,421

Project Identifier: R01LM013616

Description: This research will produce novel domain-independent methods for the design and analysis of randomized trials that can be applied whenever research questions require the guarantees

afforded by randomization, and the practicalities of research economy require the incorporation of high-quality external data. This work will create new standards for the future regulatory evaluation of medical interventions using new causal and statistical methods and incorporating advances in ML and AI technologies.

SERVICE

Department, Center and University Service:

2025 – present	Director/Organizer, Causal Inference Working Group
2025 – present	Chair, Faculty Advisory Committee
2025 – present	Member, Qualifying Exam Committee
2026	Member, Search Committee for Health Law Legal Scholar
2022 – 2025	Chair, Nominations Committee
2021 – 2025	Chair, Qualifying Exam Committee
2024 – 2025	Member and Diversity Representative, Search Committee for Associate or Full Professor of Epidemiology
2021 – 2022	Member, Diversity and Inclusion Action Plan (DIAP) Committee
2020 – 2021	Member, Epidemiology Curriculum Committee
2019 – 2021	Member, Qualifying Exam Committee
2019 – 2021	Meiklejohn Undergraduate Advisor
2018 – 2019	Director/Organizer, Foundational Papers in Public Health: Junior Faculty, Post-Doctoral Fellow and Student Seminar
2018 – 2019	Co-Coordinator (with Dr. Andrew Zullo), Pharmacoepidemiology Research Core, School of Public Health, Brown University
2018	Director/Organizer, Topics in Causal Inference: Junior Faculty and Post-Doctoral Fellow Seminar
2017 – 2020	Director/Organizer, Causal Inference Research Collaborative (CIRC)

National Service:

2023	Methodologist Reviewer, for PCORI's Existing Interventions and Emerging Innovations in Health (EI) panel
2019	International Society for Pharmacoepidemiology Methods Committee on Older Adults

Journal Manuscript Reviewer:

- JAMA
- Jama Network Open
- PLOS one
- Journal of the American Geriatrics Society
- Health Care
- Psychiatric Services
- American Journal of Public Health
- Journal of the American Medical Directors Association
- Epidemiology
- Journal of Preventive Medicine

- Journal of Affective Disorders
- American Journal of Managed Care
- Journal of General Internal Medicine

MENTEES AND TRAINEES

Current mentees and trainees:

Trainee Name	Type/Training Period	Thesis/Project Title	Role
Sirui (Rita) Zhang	PhD Epidemiology, Brown University (2025-present)	Risk of a Second Motor Vehicle Crash Following Antihypertensive Medication Changes Among Older Drivers	RAship Advisor
Yalin Deng	PhD Health Services, Policy & Practice, Brown University (2025-present)	Trends and Optimal Implementation of Bisphosphonate Drug Holidays	Dissertation Committee Member
Fang-Wen (Nora) Lu	PhD Epidemiology, Brown University (2024-present)	Linkage of Medicare insurance claims to police-reported motor vehicle crashes: Advancing traffic safety research in older adult populations	RAship Advisor
Fiona Bhondokhan	PhD Epidemiology, Brown University (2023-present)	Promoting Safe Medication Deprescribing through Nonpharmacologic Pain Treatment in Older Adults with Alzheimer's Disease and Related Dementias	Dissertation Committee Member, RAship Advisor
Selvam Sendhil	PhD Epidemiology, Brown University (2023-present)	High Prevalence and Variable Duration of Potentially Clinically Significant Drug-Drug Interactions Among U.S. Nursing Home Residents	Dissertation Committee Member, Academic Advisor
Iju Shakya	PhD Epidemiology, Brown University (2022-present)	N/A	Academic Advisor
Mir Moafi-Madani	PhD Epidemiology, Brown University (2022-present)	Intergenerational social mobility, income volatility, and cardiovascular health	Dissertation Committee Member

Completed Mentees and Trainees:

Trainee Name	Type/Training Period	Thesis/Project Title	Role	Last Known Position
Kami Radjabova	MPH, Brown University (2024 – 2025)	Renal Impairment I1500 in Minimum Data Set (MDS) 3.0: Agreement with Laboratory Value Records of Nursing Home Residents	Thesis Reader	Attending Medical School
Meghan Cupp Baxton	PhD Epidemiology, Brown University (2022-2025)	Treating pain in autoimmune disease: concurrent use of opioids and biologic medication	Dissertation Committee Member	Current Student, Brown University
Jonathan Luu	PhD Biostatistics, Harvard School of Public Health	Statistical methods for complex dependent data	Dissertation Committee Member	Principal Biostatistician at Regeneron

	(2022-2024)			
Rachel Gaither	PhD Epidemiology, Brown University (2022-2024)	Recovery Trajectories and Epigenetic Predictors of Female Posttraumatic Pain Development	Dissertation Committee Member	Research Scientist, Brown University
Arianna Allman	MPH, Brown University (2022-2023)	Concomitant use of tramadol and selective serotonin reuptake inhibitors in those who have experienced hip fracture	Dissertation Committee Member	Clinical Safety Scientist, Vertex Pharmaceuticals
Nana Boame	PhD Epidemiology, Brown University (2020-2022)	Diagnostic pathways, smoking cessation and lung cancer incidence in the NLST	Dissertation Committee Member	Epidemiologist, Public Health Agency of Canada
Rachel Yorlets	PhD Epidemiology, Brown University (2020-2023)	Circular migration and HIV care engagement in South Africa	Dissertation Committee Member	Postdoctoral Fellow, Boston University Clinical HIV/AIDS Research Training Program
Sarah Robertson	PhD Health Services, Policy & Practice, Brown University (2020-2022)	Causal inference with diverse sources of data	Dissertation Committee Member	Postdoctoral Research Fellow, Harvard T.H. Chan School of Public Health
Yokabed Ashenafi	ScM Epidemiology, Brown University (2020-2021)	Racial disparities in CT imaging use in the Emergency Department	Dissertation Committee Chair	Clinical Study Team Assistant II, Pfizer
Jennifer Meyers	MPH, Perleman School of Medicine at the University of Pennsylvania (2020-2021)	Capstone: Elimination of drivers' license suspensions for failure to pay: A policy review	Senior Mentor	Professor of Clinical Medicine, Perelman School of Medicine University of Pennsylvania
Arielle Childs	ScM Epidemiology, Brown University (2017-2019)	Systematic Review of the Burden of Respiratory Infections in Long-Term Care	Dissertation Committee Member	Senior Public Health Epidemiologist, State of Rhode Island

SELECTED TEXT MEDIA QUOTING NINA JOYCE OR JOYCE ET AL. PAPERS

1. 'You can no longer drive, and good luck?': Figuring out how long it's safe to drive has become the third rail of aging. *Boston Globe*. October 30th, 2024.
<https://www.bostonglobe.com/2024/10/30/metro/older-drivers-car-crashes-driving/>

PROFESSIONAL AFFILIATIONS

Academy Health
American Geriatric Society (AGS)
American Heart Association (AHA)
American Statistical Association (ASA)
American Society for Epidemiological Research (SER)
International Society for Pharmacoepidemiology (ISPE)
American Public Health Association (APHA)

Society for Epidemiologic Research (SER)

HONORS AND AWARDS

2025	JAMA Top Peer Reviewer (Top 9% of Reviewers) Journal of the American Medical Association
2017 – 2017	Journal of the American Geriatric Society Junior Reviewer American Geriatric Society
2012 – 2013	June Rockwell Levy Foundation Pre-Doctoral Fellowship Brown University
2012	Global Health Economics and Outcomes Research Student Fellowship Pfizer, Inc.

TEACHING

Course Instructor:

2020 – present	Intermediate Methods in Epidemiologic Research Brown University School of Public Health
2024 – present	Modern Foundations of Causal Inference in Epidemiologic Research Brown University School of Public Health

Guest Lecturer:

2021	Effect Modification and Interaction - Guest Lecturer Brown University School of Public Health
2019	Intermediate Epidemiology: Causal Inference Brown University School of Public Health
2019	Medicare: A Data Based Policy Examination Brown University School of Public Health
2019	Senior Seminar – Guest Lecturer Brown University School of Public Health
2018	Intermediate Epidemiology: Longitudinal Data Brown University School of Public Health
2013	Validity in Epidemiological Studies Brown University School of Public Health
2013	Post Data Collection Research Activities Brown University School of Public Health