### Nina R. Joyce, Ph.D.

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Department of Epidemiology
Center for Gerontology and Healthcare Research
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### **EDUCATION**

2011 - 2015	<b>Ph.D. Epidemiology</b> (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	<b>BA, Biology and Community Health</b> Tufts University, Medford MA

### **POST-DOCTORAL TRAINING**

2015 - 2017

National Institute of Mental Health, T-32

Harvard Medical School, Department of Health Care Policy

Boston, MA

### PROFESSIONAL APPOINTMENTS

2019 - present	Assistant Professor (Tenure Track) Department of Epidemiology Brown University School of Public Health
2017 - present	Research Associate Population Studies Training Center (PSTC) Brown University
2017 - 2020	<b>K-12 Scholar</b> 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) Brown University Department of Health Services, Policy and Practice
2012 - 2015	Research Analyst Providence Veterans Administration, Providence RI

### PEER REVIEWED JOURNAL ARTICLES

- 1. Kennedy M, **Joyce NR**, Howell M, Mottley L, Shaprio, N. Identifying Infected Emergency Department Patients Admitted to the Hospital Ward at Risk of Clinical Deterioration and ICU Transfer *Academic Emergency Medicine* 2010 (10):1080-5
- 2. Volz K, McGillicuddy D, Horowitz M, Wolfe R, **Joyce NR**, Sanchez L. Eliminating Amylase Testing from the Evaluation of Pancreatitis in the Emergency Department *Western Journal of Emergency Medicine* 2010 11(4):344-347
- 3. Donnino MW, Carney E, Cocchi MN, Barbash I, Chase M, **Joyce NR**, Chou PP, Ngo L. Thiamine Deficiency in Critically Ill Patients with Sepsis *Journal of Critical Care* 2010 25(4):576-8
- 4. Chase M, **Joyce NR**, Carney E, Salciccioli J, Vinton D, Donnino M, Edlow J. ED Patients with Vertigo: Can we Identify Clinical Factors Associated with Acute Stroke? *Academic Emergency Medicine* 2012 30(4):587-91
- 5. 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 *Internal Emergency Medicine* 2011 6(4):357-9
- Cocchi MN, Miller J, Hunziker S, Carney E, Salciccioli 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 Anesthesiology 2011 77(11):1063-71
- 7. Bartels S, Scott J, Leaning J, Kelly J, **Joyce NR**, Mukwege D, VanRooyen M. Psychosocial Consequences of Sexual Violence in South Kivu

- Province, Democratic Republic of Congo *Journal of Peace, Gender and Development Studies* 2011 1(2):48-52
- 8. Hansen CK, Fisher J, **Joyce NR**, Edlow JA. Emergency Department Consultations for Patients with Neurological Emergencies *European Journal of Neurology* 2011 18(11): 1317-22
- 9. 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 4 Suppl 3: S242-50. doi: 10.1016/j.amepre.2011.06.009. PMID: 21961671; PMCID: PMC4531839.
- 10. Sanchez LD, McGillicuddy DC, Volz KA, Fan SL, **Joyce NR**, Horowitz GL. The Effect of Two Different FDA-Approved D-dimer Assays on Resource Utilization in the Emergency Department *Academic Emergency Medicine*\_2011 18(3):317-21
- 11. 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.
- 12. Nelson B, Collins L, VanRooyen MJ, **Joyce NR**, Mukwege D, Bartels S. Impact of Sexual Violence on Children in the Eastern Democratic Republic of Congo *Medicine Conflict and Survival* 2011 27(4): 211-225
- 13. Chase M, Klasco RS, **Joyce NR**, Donnino MW, Wolfe RE, Shapiro NI. Predictors of Bacteremia in Emergency Department Patients with Suspected Infection *American Journal of Emergency Medicine*. 2012 30(9):1691-7
- 14. 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 4:393-401. doi: 10.1001/dmp.2012.66. PMID: 23241471.
- 15. Burke LG, **Joyce NR**, Epstein SK. The Effect of an Ambulance Diversion Ban on Emergency Department Length of Stay and Ambulance Turnaround Time *Annals of Emergency Medicine* 2013 61(3): 303-311
- 16. Bartels S, Kelly J, Scott J, Leaning J, Mukwege D, **Joyce N**, VanRooyen M. Militarized sexual violence in South Kivu, Democratic Republic of

- Congo. *Journal of Interpersonal Violence*. 2013 28(2): 340-58 doi: 10.1177/0886260512454742. PMID: 22929338.
- 17. Bailey J, Hawker GA, Wood R, Cappelleri JC, Higgins V, **Joyce NR**, Hsu M-A. Impact of Physician Specialty on Classification of Physician-Perceived Patient Severity for Patients with Osteoarthritis *Osteoarthritis and Cartilage* 2014 22:647-651
- 18. Hansen CK, Fisher J, **Joyce NR**, Edlow JA. A prospective evaluation of indications for neurological consultation in the emergency department. *International Journal of Emergency Medicine*. 2015 Dec;8(1):74. doi: 10.1186/s12245-015-0074-3. PMID: 26223983; PMCID: PMC4514733.
- 19. Mor V, **Joyce NR,** Cote 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 122(5) 782-790
- 20. **Joyce NR**, Wellenius GA, Dore DD, Newburger JW, Zachariah JP. Patterns of Lipid Lowering Therapy Among Children Ages 8 to 20 years, 2005 2010 *Journal of Pediatrics* 2015 167: 113-119
- 21. 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 *Journal of Palliative Medicine* 2016 19(9): 957-963
- 22. Ziakas PD, **Joyce NR**, Zacharioudakis IM, Zervou FN, Besdine R, Mor R, Mylonakis E. Prevalence and Impact of *C.difficile* Infection in Elderly Residents of Long-Term Care Facilities, 2016: A Nationwide Study *Medicine* 2016 95(31): e4187
- 23. **Joyce NR,** Wellenius GA, Eaton CB, Trivedi AN, Zachariah JP. Patterns and Predictors of Medication Adherence to Lipid Lowering Therapy in Children Ages 8 to 20, *Journal of Clinical Lipidology* 2016 10(4): 824-83
- 24. **Joyce NR,** Mylonakis E, Mor V. The Impact of *Clostridium difficile* Prevalence in Hospitals and Nursing Homes on the Risk of Infection *Journal of the American Geriatric Association* 2017 65(7): 1527–1534
- 25. **Joyce NR**, Zachariah JP, Eaton CB, Trivedi AN, Wellenius GA. Statin Use and the Risk of Type 2 Diabetes Mellitus in Children and Adolescents *Academic Pediatrics* 2017(5): 515-522

- 26. 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.
- 27. 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.
- 28. Bortolin M, Morelli I, Voskanyan A, **Joyce NR**, Ciottone 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.
- 29. **Joyce NR**, Barry CL, Hadland S, Greenfield SF, Donahue JM, Stuart EA, Huskamp H The Alternative Quality Contract: Impact on Service Use and Spending for Children with ADHD *Psychiatric Services* 2017 68(12): 1210-1212
- 30. Assaf AR, Bushmakin 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 *Am Health Drug Benefits* 2017 10(6): 311-321
- 31. **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.
- 32. **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 Services Research* 2018 53(5): 3657-3679
- 33. **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 24(6): e183-e189
- 34. Mor V, Wagner T, Levy C, Ersek M, Miller S, Gidwani-Marszowski R, **Joyce NR**, Faricy-Anderson KE, Corneau E, Lorenz K, Kinosian B, Shreve S. Association of Expanded VA Hospice Care With Aggressive Care and Cost for Veterans With Advanced Lung Cancer *JAMA Oncology* 2019 5(6): 810-816

- 35. Meyers DF, Belanger E, **Joyce NR**, McHugh J, Rahman M, Mor V. Analysis of Drivers of Disenrollment and Plan Switching Among Medicare Advantage Beneficiaries *JAMA Internal Medicine* 2019 179(4): 524–532
- 36. 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.
- 37. 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 Geriatrics* 2019 19(1): 210
- 38. 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. *Journal of the American Geriatric Society* 2020 68(1): 70-77
- 39. **Joyce NR,** Zullo AR, Ahluwalia JS, Pfeiffer MR, Curry AE. Driver's License Suspension Policies as a Barrier to Health Care *American Journal of Public Health* 2019 109(12): 1692-1693
- 40. Kulick ER, Wellenius GA, Boehme AB, **Joyce NR**, Schupf N, Kaufman JD, Sacco RL, Mayeux R, Manly JJ, Elkind MS. Long-term Exposure to Air Pollution and Trajectories of Cognitive Decline Among Older Adults *Neurology* 2020 94(17): e1782-e1792
- 41. Kulick ER, Boehme AB, Wellenius GA, **Joyce NR**, Elkind MS, Manly JJ. Long-term Exposure to Ambient Air Pollution, APOE-e4 status, and Cognitive Decline in a Cohort of Older Adults in Northern Manhattan. *Environment International* 2020 136: 105440
- 42. Belanger E, McHugh J, Meyers DJ, **Joyce NR**, Rahman M, Schwartz M, Baier R, Mor V. Characteristics of Top Performing Hospitals Caring for High-Need Medic are Beneficiaries *Population Health Management* 2020 23(4):313-318
- 43. Keeney T, **Joyce NR**, Meyers DF, Mor V, Belanger E. Persistence of High-Need Status over Time among Fee-for-Service Medicare Beneficiaries. *Medical Care Research and Review* 2020 Oct;78(5):591-597.

- 44. Metzger KB, Sartin E, Foss RD, **Joyce NR**, Curry AE. Vehicle safety characteristics in vulnerable driver populations. *Traffic Injury Prevention* 2020(27): 1-6
- 45. **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. *Journal of Transport & Health* 2020 (19): 100933
- 46. 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.
- 47. Saade EA, Abul Y, McConeghy K, Edward Davidson H, Han L, **Joyce** N, 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.
- 48. Robertson SE, Steingrimsson JA, **Joyce NR**, Stuart EA, Dahabreh IJ. Estimating subgroup effects in generalizability and transportability analyses. *American Journal of Epidemiology* (accepted for publication, 2022)
- 49. **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. *Journal of Aging and Social Policy* (accepted for publication, 2022)
- 50. 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* (accepted for publication 2022)

#### POSTER PRESENTATIONS (PEER-REVIEWED)

- 1. Hurwitz A, Rosen C, **Joyce NR**, Mittelman A and Fisher J. Grade Inflation among United States Medical Schools. Society for Academic Emergency Medicine 2008
- 2. Ullman E, **Joyce NR**, Fisher F. Grade Inflation among United States Medical Schools. Society for Academic Emergency Medicine 2008
- 3. 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
- 4. 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
- 5. Lipton R, **Joyce NR.** Spatial-Temporal Relationships between Violence and Alcohol Outlets in Boston. Society for Academic Emergency Medicine 2009
- 6. 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
- 7. 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
- 8. 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
- 9. Chase M, **Joyce NR**, Carney E, Salciccioli J, Vinton D, Edlow J, Donnino M. Do Emergency Department Patients with Vertigo Need Emergent Magnetic Resonance Imaging? Society for Academic Emergency Medicine 2009
- 10. 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

- 11. **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
- 12. **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
- 13. **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
- 14. **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
- 15. **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
- 16. **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
- 17. Saad E, **Joyce NR**, Ogarek J, Davidson HE, Han L, Canaday D, Yassin A, Shireman T, Mor V, Gravenstein S. Comparative Effectiveness of Highversus 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
- 18. 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.
- 19. 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
- 20. **Joyce NR,** Zullo AR, Foss R, Metzger K, Wellenius G, Curry AE "The use of Quasi Induced Exposure to identify risk factors for motor vehicle

### **CONFERENCE PRESENTATIONS**

- 1. **Joyce NR**, Tibbles C, Shrupp H and Fisher J. Availability of Emergency Contraception in Pharmacies without a Prescription. Society for Academic Emergency Medicine, 2008
- 2. 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
- 3. 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
- 4. 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
- 5. 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
- 6. 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
- 7. **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
- 8. **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

- 9. **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
- 10. 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
- 11. Belanger E., **Keeney T.**, Joyce N., Meyers D.J., Rahman M., Mor V. The Persistence of High-Need Status over Time- Implications for Feefor-Service Medicare Beneficiaries. Poster Presentation at the Academy Health 2019 Annual Research Meeting 2019
- 12. **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, 2019
- 13. 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
- 14. 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
- 15. **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, 2020
- 16. 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

#### **INVITED TALKS**

# February 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

### December 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)

# February 2019 Generalizing Findings from Cluster Randomized Trials

Center for Gerontology and Health Care Research Brown

**Bag Series** 

Brown University School of Public Health

### May 2019 Generalizability of Pragmatic Trials

Hebrew Senior Life/Brown Joint Seminar Series Brown University School of Public Health

# November 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

# October 2020 Individual- and neighborhood-level variation in driver's license suspensions for non-driving-related

offenses

Stanford Computational Policy Lab

Stanford University

### **CURRENT RESEARCH SUPPORT**

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

**Funder:** National Institute on Aging

**Project period:** 08/15/2022 - 06/30/2026

**Amount:** \$3,164,682

**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.

Role: Principal investigator

Timelpai mvestigator

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

**Funder:** National Library of Medicine **Project period:** 02/04/2022 - 01/31/2026

**Amount:** \$3,455,851

**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.

Role: Subcontract Principal Investigator (Principal investigator: Issa

Dahabreh)

### Medications and the Risk of Motor Vehicle Crashes in Older Adults

**Funder:** National Institute of Aging

**Project Period:** 09/15/2020 - 05/31/2024

**Amount:** \$3,455,851

**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.

**Role:** Co-investigator (Principal investigator: Andrew Zullo)

# Medications and the Risk of Motor Vehicle Crashes in Older Adults - AD/ADRD supplement

Funder: National Institute of Aging

**Project Period:** 06/01/2022 - 05/31/2023

**Amount:** \$1,872,374

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.

**Role:** Co-investigator (Principal investigator: Andrew Zullo)

#### COMPLETED RESEARCH SUPPORT

# Patterns of Pharmacotherapy Use in Children with Familial Hypercholesterolemia: A Real-World Assessment

Funder: American Heart Association Pre-Doctoral Dissertation Grant

**Project period:** 06/01/2013 - 05/31/2015

**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.

Role: Principal Investigator

**T-32 Training Grant** 

Funder: National Institute of Mental Health (T32MH019733)

**Project period:** 08/01/2015 - 07/30/2017

**Role:** Trainee (Principal Investigator: McGuire)

**High-Cost, High-Needs Patient Project** 

**Funder:** The Peterson Foundation

**Project period:** 02/01/2017 - 09/30/2019

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

patients.

**Role:** Co-Investigator (Principal Investigator: Mor)

### Patient Centered Outcomes Research Institutional Mentored Career Development Program

Funder: Agency for Healthcare Research and Quality (Agency for Health-

care Research and Quality)

**Project period:** 10/1/2017 - 07/31/2020

**Amount:** \$461,980

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

Role: Scholar (Principal Investigator: Trikalinos)

### Medications and the Risk of Motor Vehicle Crashes in Older Drivers

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

**Project Period:** 01/01/2019 - 12/31/2019

**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.

**Role:** Co-Investigator (Principal Investigator: Zullo)

Flublok Study: Stratified, Cluster Random Assignment Trial - RIV

Funder: Sanofi Pasteur

**Project Period:** 04/01/2019 - 09/30/2023

**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.

**Role:** Co-Investigator (Principal Investigator: Gravenstein)

Severe Storms and Asthma Exacerbation among Children

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

(HD4A)

**Project Period:** 11/1/2019 - 10/31/2020

**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.

**Role:** Co-Investigator (Principal Investigator: Weinberger)

### Guidelines and Best Practices for Evaluating the Causal Effects of Medications on Motor Vehicle Crashes and Driving Outcomes using Observational Data

Funder: International Society for Pharmacoepidemiology

**Project Period:** 01/01/2020 - 01/31/2021

**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.

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

## The Effect of a Driver's License Suspension on Access to Health Care

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

funding

**Project Period:** 07/01/2020 - 06/30/2021

**Amount:** \$50,000

**Description:** Seed grant to develop the preliminary work required for extending analyses on the effect of license suspension policies on access to health care for an PO1 submission to ALIDO.

health care, for an R01 submission to AHRQ.

**Role:** Principal Investigator

# The Effect of Driving Cessation on Mental Health Outcomes and the Transition to Long-Term-Care among Community Dwelling Older Adults

**Funder:** Albert and Elaine Borchard Foundation on Law and Aging **Project Period:** 06/01/2020 – 05/31/2021 (NCE through 12/2021)

**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. **Role:** Principal Investigator

Population-Level Estimates of Young Drivers' Engagement in Risky Driving Behaviors and Motor Vehicle Crash Risk: An Innovative Method to Adjust for Driving Exposure

**Funder:** NICHD (Sub to Children's Hospital of Philadelphia) **Project Period:** 09/01/2019 – 08/31/2021 (NCE through 06/2022)

**Amount:** \$30,771

**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.

**Role:** Principal Investigator (sub)

#### **SERVICE**

### **Department, Center and University Service:**

2018	Director/Organizer, Topics in Causal Inference: Ju-
	nior Faculty and Post-Doctoral Fellow Seminar
2018 - 2019	Director/Organizer, Foundational Papers in Public Health:
	Junior Faculty, Post-Doctoral Fellow and Student Seminar
2017 - 2020	Director/Organizer, Causal Inference Research Col-
laborative (CIRC)	
2020 - 2021	Member, Epidemiology Curriculum Committee
2019 - 2021	Meiklejohn Undergraduate Advisor
2019 - 2021	Member, Qualifying Exam Committee
2021 - 2022	Member, Diversity and Inclusion Action Plan (DIAP)
Committee	
<b>2022 - present</b>	Member, Nominations Committee
<b>2021 - present</b>	Chair, Qualifying Exam Committee

#### **National Service:**

**2019** International Society for Pharmacoepidemiology

Methods Committee on Older Adults

### Journal Manuscript Reviewer:

American Journal of Managed Care Journal of General Internal Medicine Journal of Preventive Medicine
Journal of the American Geriatrics Society
Journal of Affective Disorders
American Journal of Public Health
Journal of the American Medical Directors Association
Epidemiology
Health Care
Psychiatric Services
PLOS one

#### STUDENTS AND TRAINEES

**2017 - 2019** Arielle Childs, ScM Epidemiology

Thesis: Systematic Review of the Burden of Respiratory Infec-

tions in Long-Term Care Role: Committee member

**2020 - 2021** Yokabed Ashenafi, ScM Epidemiology

Thesis: Racial disparities in CT imaging use in the Emergency

Department

Role: Chair

**2020 - 2021** Jennifer Meyers, Master Public Health (Perleman School of Medicine at the University of Pennsylvania)

Capstone: Elimination of drivers' license suspensions for

failure to pay: A policy review

Role: Senior Mentor

**2020 - 2022** Sarah Robertson, PhD Health Services Policy and Practice Dissertation: Causal inference with diverse sources of data Role: Committee member

**2020 - 2022** Nana Boame, PhD Epidemiology

Dissertation: Diagnostic pathways, smoking cessation and lung

cancer incidence in the NLST

Role: Committee member

**2022 - present** Arianna Allman

Thesis: Predictors of concomitant use of tramadol and selec-

tive serotonin reuptake inhibitors

Role: Committee member

**2021 - present** Rachel Yorlets, PhD Epidemiology

Dissertation: Circular migration and HIV care engagement in

South Africa

Role: Committee member

**2022 - present** Rachel Gaither, PhD Epidemiology

Dissertation: TBD

Role: Committee member

**2022 - present** Meghan Cupp Baxton, PhD Epidemiology

Dissertation: TBD

Role: Committee member

**2022 - present** Jonathan Luu, PhD Biostatistics (Harvard School of Public

Health)

Dissertation: TBD

Role: Committee member

### 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)

#### **HONORS AND AWARDS**

# 2012 Global Health Economics and Outcomes Research Student Fellowship

Pfizer, Inc.

#### 

**Brown University** 

### 2017 - 2017 Journal of the American Geriatric Society Junior

Reviewer

American Geriatric Society

**TEACHING** 

### **Course Instructor**

### Brown University School of Public Health **Teaching Associate** 2013 **Applied Research Methods** Brown University School of Public Health 2013 **Fundamentals of Epidemiology** Brown University School of Public Health **Guest Lecturer** 2013 Validity in Epidemiological Studies Brown University School of Public Health 2013 **Post Data Collection Research Activities** Brown University School of Public Health 2018 **Intermediate Epidemiology: Longitudinal Data** 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 Senior Seminar - Guest Lecturer 2019 Brown University School of Public Health 2021 **Effect Modification and Interaction - Guest Lecturer** Brown University School of Public Health

2020 - present Intermediate Epidemiology