REBECCA BOYD NAUMANN CURRICULUM VITAE

PERSONAL

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EDUCATION

Doctor of Philosophy in Epidemiology (PhD)

Dec 2017

University of North Carolina, Chapel Hill, North Carolina

Master of Science in Public Health, Epidemiology (MSPH)

May 2007

Emory University, Atlanta, Georgia

Bachelor of Science in Environmental Health (BSEH)

May 2005

University of Georgia, Athens, Georgia

PROFESSIONAL EXPERIENCE

Assistant Professor, Epidemiology Department

Core Faculty, Injury Prevention Research Center

Special Appointed Regular Graduate Faculty

Mar 2018- present

Mar 2018- present

May 2021- present

University of North Carolina, Chapel Hill, North Carolina

- Leads epidemiologic research and analyses in a variety of injury-related research areas, including road safety and opioid overdose prevention
- Specific focus on applying complex systems methods and approaches to injury problems

Senior Health Research Scientist

Jan 2018- Feb 2018

Injury Prevention Research Center, University of North Carolina, Chapel Hill, North Carolina

• Conducts and disseminates epidemiologic research and analyses in a variety of injury-related research areas, including road safety and prescription drug overdose policy

Graduate Research Assistant

May 2014- Dec 2017

Department of Epidemiology and Injury Prevention Research Center, University of North Carolina, Chapel Hill, North Carolina

- Conducted epidemiologic research and analyses in a variety of injury-related research areas, including motorcycle safety, falls prevention, and prescription drug overdose policy
- Contributed to all aspects of research process, including study design, data management, data analysis, and manuscript writing
- Contributed to grant and proposal development and writing, from initiation and development of aims through formation of study design and analysis plans

Epidemiologist Aug 2006- July 2013

Centers for Disease Control and Prevention, Atlanta, Georgia

- Conducted epidemiologic research as member of Transportation Safety Team within the Division of Unintentional Injury Prevention
- Initiated, designed, and conducted analyses of unintentional injury data, specifically related to motor vehicle injuries, independently and in collaboration with other epidemiologic staff
- Managed several grants, cooperative agreements, and contracts involving unintentional injury prevention programs both domestically and internationally

Graduate Research Assistant

Sept 2005- May 2006

Women's and Children's Center, Emory University, Atlanta, Georgia

- Research team member on a worksite-based fitness intervention study for African American women
- Performed study intake procedures, including anthropometric measurements, questionnaire administration, fitness test supervision, and ECG preparation
- Taught resistance training classes to study participants

Research Assistant

June 2005- Sept 2005

Centers for Disease Control and Prevention, Atlanta, Georgia

- Provided research support on Acute Idiopathic Pulmonary Hemorrhage study
- Data entry in Epi Info and double-entry comparisons in SAS

Epidemiology/Injury Prevention Intern

May 2004- Aug 2004

Bristol Bay Area Health Corporation, Dillingham, Alaska

- Junior Commissioned Officer Student Training and Externship Program
- Updated data in hospital-based injury surveillance system (11 years of injury & death data) to Epi Info program and analyzed data to evaluate injury prevention program efforts
- Traveled to American Indian villages and assisted in teaching safety and survival classes
- Awarded U.S. Public Health Service Citation for Exemplary Performance of Duty for Sustained Quality Performance of Environmental Health and Injury Prevention Duties

HONORS

- NC Secretary of Health and Human Services Team Recognition Award for the NC Justice & Health Workgroup, 2021
- Delta Omega Honorary Society in Public Health, inducted 2018
- Outstanding Student of the Year, University Transportation Centers Program, 2017
- Shults Injury Prevention Scholarship, 2017
- University of North Carolina's Royster Society of Fellows, 2013-2017
- Robert Verhalen Scholarship Award for Injury Prevention and Trauma Management, 2015-2016
- CDC Honor Award for International Excellence in Program Delivery as a member of the Global Road Safety Team. Award was for significant program delivery of global road safety programs, specifically with respect to the evaluation of Global Helmet Vaccine Initiatives, 2012
- CDC National Center for Injury Prevention and Control's "Excellence in Injury Prevention" Award (i.e., the Director's Award) for work on the CDC "winnable battle" of motor vehicle injury prevention, 2012
- CDC National Center for Injury Prevention and Control's "Excellence in Program Delivery" award for work on international road safety programs, 2012
- Nominated for CDC Charles C. Shepard Science Award for the following paper: Naumann RB, Dellinger AM, Zaloshnja E, Lawrence BA, Miller TR. Incidence and total lifetime costs of motor vehicle-related fatal and nonfatal injury by road user type, United States, 2005. Traffic Injury Prevention 2010; 11(4):353-360, 2011
- National Indian Health Service's (IHS) Director's Award for work with the San Carlos Apache Tribe's Motor Vehicle Injury Prevention Program, 2010

- "Best Abstract" at Society for Advancement of Violence and Injury Research Conference for abstract entitled "Effective strategies to reduce motor vehicle injuries among American Indians/Alaska Natives", 2009
- Lettie P. Whitehead Scholarship, 2005-2006
- Irving Bell Scholarship, Georgia Environmental Health Association, 2005
- Rowe Environmental Health Award, 2005
- U.S. Public Health Service Citation for Exemplary Performance of Duty for Sustained Quality Performance of Environmental Health and Injury Prevention Duties, 2004

MEMBERSHIPS

System Dynamics Society 2017- present

Society for Advancement of Violence and Injury Research 2015- present

BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

BOOK CHAPTERS, MANUALS, REPORTS, AND GUIDES (* denotes student led; ^ denotes senior author)

- 1. *^Rowland C, Austin A, **Naumann R**. Review of COVID-19 and substance use-related literature, January 1, 2020 through March 31, 2021. Report for the NC Division of Public Health under contract #40258 with the University of North Carolina at Chapel Hill Injury Prevention Research Center. May 3, 2021.
- 2. LaJeunesse S, **Naumann RB**, Sandt L, Spade C, Evenson KR. Guide to Developing a Vision Zero Plan. Collaborative Sciences Center for Road Safety. 2020. Available from: https://www.roadsafety.unc.edu/wp-content/uploads/2020/08/CSCRS VZGuide FINAL.pdf
- 3. Sandt L, **Naumann R**, Heiny S, Harmon K, Thomas L, Hassmiller Lich K, Kuhlberg J. Explaining the rise in pedestrian fatalities: a systems approach. Collaborative Sciences Center for Road Safety Final Report for U.S. DOT grant #69A3551747113. October 2018.
- 4. **Naumann R,** Durrance C. Shanahan M. The impact and cost-benefit of naloxone distribution in North Carolina. Report for the NC Division of Public Health under contract with the University of North Carolina at Chapel Hill Injury Prevention Research Center. August 31, 2018.
- 5. LaJeunesse S, Marshall S, Heiny S, **Naumann R**, Evenson K, Copper J, Doggett S. Structures of stakeholder relationships in making road safety decisions. Collaborative Sciences Center for Road Safety Final Report for U.S. DOT grant #69A3551747113. August 31, 2018.
- 6. Sleet DA, **Naumann R**, Baldwin G, Dinh-Zarr TB, Ewing R. Chapter 21: Eco-friendly transportation and the built environment. Praeger Handbook. Robert Friis, Editor. Volume I, 2012. pp. 427-439.
- 7. Stevens JA, Diekman S, **Naumann RB**. Injury prevention in older adults. Encyclopedia of Lifestyle Medicine and Health. Ed. James M. Rippe. Thousand Oaks, CA: SAGE, 2012. pp. 635-639.
- 8. Sanchez T, **Naumann RB**, Shults RA. Motorcycle Safety Guide: How to save lives and save money. Atlanta, Georgia: National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention, 2011. 28 pages.
- 9. Sleet DA, Dellinger AM, **Naumann RB**. Chapter 32: The intersection of road traffic safety and public health. In Porter BE. Handbook of Traffic Psychology. Waltham, Massachusetts: Academic Press, Elsevier, 2011. pp. 457-470.
- 10. Sleet DA, **Naumann RB**, Rudd RA. Chapter 5: Injuries and the built environment. In Dannenberg AL, Frumkin H, Jackson R J. Making healthy places: Designing and building for health, well-being and sustainability. Washington, DC: Island Press, 2011. pp. 77-90.
- 11. Letourneau RJ, Crump CE, Purcell P, Billie H, **Naumann RB**. Tribal Motor Vehicle Injury Prevention Program Manual. National Center for Injury Prevention and Control, CDC. October 2010. 63 pages.

REFEREED PAPERS/ARTICLES (* denotes student led; ^ denotes senior author)

- 1.*^Singichetti B, Conklin JL, Hassmiller Lich K, Sabounchi N, **Naumann RB**. Congestion pricing policies and safety implications: a scoping review. *Journal of Urban Health*. 2021. In press.
- 2.*^Shiue K, Austin AE, Proescholdbell S, Cox ME, Aurelius M, **Naumann RB**. Literal text analysis of polyclass and polydrug overdose deaths in North Carolina, 2015-2019. *Drug and Alcohol Dependence*. 2021. In press.
- 3.* Caves Sivaraman JJ, Greene SB, **Naumann RB**, Proescholdbell S, Ranapurwala SI, Marshall SW. Association between medical diagnoses and suicide in a Medicaid beneficiary population, North Carolina 2014-2017. *Epidemiology*. 2021. In press.
- 4. Austin AE, Shiue K, **Naumann RB**, Figgatt MC, Gest G, Shanahan ME. Associations of housing stress with later substance use outcomes: A systematic review. *Addictive Behaviors*. 2021;123:1-16.
- 5.* Shiue K, Dasgupta N, **Naumann RB**, Nelson AE, Golightly YM. Sociodemographic and clinical predictors of prescription opioid use in a longitudinal community-based cohort study of middle-aged and older adults. *Journal of Aging and Health*. 2021. In press. https://doi.org/10.1177/08982643211039338.
- 6.* Shmuel S, Pate V, Pepin MJ, Bailey JC, Golightly YM, Hanson LC, Stürmer T, **Naumann RB**, Gnjidic D, Lund JL. Effects of anticholinergic and sedative medication use on fractures: a self-controlled design study. *Journal of the American Geriatric Society*. 2021. In press.
- 7.*^Remch M, Mautz C, Burke EG, Junker G, Kaniuka A, Proescholdbell S, Marshall SW, **Naumann RB**. Impact of a prison Therapeutic Diversion Unit on mental and behavioral health outcomes. *American Journal or Preventive Medicine*. 2021. In press.
- 8. Austin AE, DiBona V, Cox ME, Proescholdbell S, Fliss MD, **Naumann RB**. Use of medications for opioid use disorder and prescription opioids among mothers of infants with diagnosed neonatal opioid withdrawal syndrome: North Carolina Medicaid, 2016-2018. *American Journal of Public Health*. 2021. In press.
- 9. Austin AD, **Naumann RB**, Short NA. Association of Medicaid expansion with suicide deaths among nonelderly adults. *American Journal of Epidemiology*. 2021. In press.
- 10. Austin AE, **Naumann RB**, Figgatt MC, Aiello AE. Adolescent and adult correlates of prescription opioid use and misuse in adulthood. *Substance Use and Misuse*. 2021;56(3):404-415.
- 11. *^Figgatt MC, Austin AE, Cox MB, Proescholdbell S, Marshall SW, **Naumann RB**. Trends in unintentional polysubstance overdose deaths and individual and community correlates of polysubstance overdose, North Carolina, 2009-2018. *Drug and Alcohol Dependence*. 2021. DOI: 10.1016/j.drugalcdep.2020.108504.
- 12. *Shmuel S, Pate V, Pepin MJ, Bailey JC, Hanson LC, Stürmer T, **Naumann RB**, Golightly YM, Gnjidic D, Lund JL. Quantifying anticholinergic and sedative drug cumulative load among US Medicare beneficiaries. *Pharmacoepidemiology and Drug Safety*. 2021. DOI:10.1002/pds.5144
- 13. **Naumann RB**, Sandt L, Kumfer W, LaJeunesse S, Heiny S, Hassmiller Lich K. Systems thinking in the context of road safety: can systems tools help us realize a true "Safe Systems" approach? *Current Epidemiology Reports*. 2020;7:343-351.
- 14. * Caves Sivaraman JJ, **Naumann RB**. Estimating the association between mental health disorders and suicide: a review of common sources of bias and challenges and opportunities for US-based research. *Current Epidemiology Reports*. 2020;7:352-362.
- 15. *^Singichetti B, **Naumann RB**, Sauber-Schatz E, Proescholdbell S, Marshall SW. Potential injuries and costs averted by increased use of evidence-based behavioral road safety policies in North Carolina. *Traffic Injury Prevention*. 2020;21(8):545-551.

- 16. **Naumann RB**, Shiue K, Hezaveh AM, Marshall, SW, Cherry CR. Connections between opioids and road injury: linkage of prescription monitoring and crash databases. *American Journal of Preventive Medicine*. 2020;58(3):461-466.
- 17. **Naumann RB**, Kuhlberg J, Sandt L, Heiny S, Apostolopoulos Y, Marshall SW, Hassmiller Lich K. Integrating complex systems science into road safety research and practice, Part 1: Review of formative concepts. *Injury Prevention*. 2020;26(2):177-183.
- 18. **Naumann RB**, Kuhlberg J, Sandt L, Heiny S, Kumfer W, Marshall SW, Hassmiller Lich K. Integrating complex systems science into road safety research and practice, Part 2: Applying systems tools to the problem of increasing pedestrian death rates. *Injury Prevention*. 2020;26:424-431.
- 19. McDonald N, Yuan Q, **Naumann R**. Urban freight and road safety in the era of e-commerce. *Traffic Injury Prevention*. 2019;20(7):764-770.
- 20. **Naumann RB**, Durrance CP, Ranapurwala SI, Austin AE, Proescholdbell S, Childs R, Marshall SW, Kansagra S, Shanahan ME. Impact of a community-based naloxone distribution program on opioid overdose death rates. *Drug and Alcohol Dependence*. 2019;204:107536.
- 21. *Austin AE, Gottfredson NC, Zolotor AJ, Halpern CT, Marshall SW, **Naumann RB**, Shanahan ME. Trajectories of child protective services contact among Alaska Native/American Indian and non-Native children. *Child Abuse & Neglect*. 2019; 95:104044.
- 22. **Naumann RB**, Heiny S, Evenson KR, LaJeunesse S, Cooper JF, Doggett S, Marshall SW. Organizational networks in road safety: case studies of U.S. Vision Zero cities. *Traffic Injury Prevention*. 2019;20(4):378-385.
- 23. **Naumann RB**, Austin AE, Sheble L, Hassmiller Lich K. System dynamics applications to injury and violence prevention: a systematic review. *Current Epidemiology Reports*. 2019;6(2):248-262.
- 24. **Naumann RB**, Roberts AW, Marshall SW, Skinner AC. Evaluation of a Medicaid lock-in program: Increased use of opioid use disorder treatment but no impact on opioid overdose risk. *Medical Care*. 2019;57(3):213-217.
- 25. **Naumann RB**, Marshall SW, Lund JL, Skinner AC, Ringwalt C, Gottfredson NC. Healthcare utilization and comorbidity history of North Carolina Medicaid beneficiaries in a controlled substance "lock-in" program. *North Carolina Medical Journal*. 2019;80(3):135-142.
- 26. Ranapurwala SI, **Naumann RB**, Austin AE, Dasgupta N, Marshall SW. Methodologic limitations of prescription opioid safety research and recommendations for improving the evidence base. *Pharmacoepidemiology and Drug Safety*. 2019;28:4-12.
- 27. **Naumann RB**, Marshall SW, Gottfredson NC, Lund JL, Ringwalt C, Skinner AC. Trajectories of dispensed prescription opioids among beneficiaries enrolled in a Medicaid controlled substance "lock-in" program. *Pharmacoepidemiology and Drug Safety*. 2019;28:16-24.
- 28. Ranapuwala SI, Shanahan ME, Alexandridis AA, Proescholdbell S, **Naumann RB**, Edwards D, Marshall SW. Opioid overdose mortality among former North Carolina inmates: 2000-2015. *American Journal of Public Health*. 2018;108:1207-1213.
- 29. **Naumann RB**, Marshall SW, Lund JL, Gottfredson NC, Ringwalt C, Skinner AC. Evaluating short- and long-term impacts of a Medicaid "lock-in" program on opioid and benzodiazepine prescriptions dispensed to beneficiaries. *Drug and Alcohol Dependence* 2018;182:112-119.
- 30. Skinner AC, Ringwalt C, **Naumann RB**, Roberts AW, Moss LA, Sachdeva N, Weaver MA, Farley JF. Reducing opioid misuse: Evaluation of a Medicaid controlled substance lock-in program. *The Journal of Pain* 2016;17(11):1150-1155.
- 31. **Naumann RB**, Marshall SW, Proescholdbell SK, Austin A, Creppage K. Impact of North Carolina's motorcycle helmet law on hospital admissions and charges for care of traumatic brain injury. *North Carolina Medical Journal* 2015;76(2):70-75.

- 32. Harmon KJ, Marshall SW, Proescholdbell SK, **Naumann RB**, Waller AE. Motorcycle crash-related emergency department visits and hospitalizations and traumatic brain injuries in North Carolina. *Journal of Head Trauma Rehabilitation* 2015;30(3):175-184.
- 33. **Naumann RB**, West BA, Sauber-Schatz EK. At what age do you think you will stop driving? Views of older U.S. adults. *Journal of the American Geriatrics Society* 2014;62(10): 1999-2001.
- 34. Sebego M, **Naumann RB**, Rudd RA, Voetsch K, Dellinger AM, Ndlovu C. The impact of alcohol and road traffic policies on crash rates in Botswana, 2004-2011: a time-series analysis. *Accident Analysis & Prevention* 2014;70: 33-39.
- 35. West BA, **Naumann RB**. Tribal Motor Vehicle Injury Prevention Programs for reducing disparities in motor vehicle-related injuries. In Strategies for reducing health disparities—selected CDC-sponsored interventions, United States, 2014. *Morbidity & Mortality Weekly Report Supplement* 2014;63(1): 28-33.
- 36. Roehler DR, **Naumann RB**, Mutatina B, Nakitto M, Mwanje B, Brodum L, Blanchard C, Baldwin GT, Dellinger AM. Using baseline and formative evaluation data to inform the Uganda Helmet Vaccine Initiative. *Global Health Promotion* 2013;20:37-44.
- 37. Bhat G, **Naumann RB**. Travel-related behaviors, opinions, and concerns of U.S. adult drivers by race/ethnicity, 2010. *Journal of Safety Research* 2013;47:93-97.
- 38. West BA, **Naumann RB**. CDC Health Disparities and Inequalities Report United States, 2013: Motor vehicle—related deaths—United States, 2005 and 2009. *Morbidity & Mortality Weekly Report Supplement* 2013;62(3):176-178.
- 39. West BA, **Naumann RB**. Disparities in Motor Vehicle–Related Deaths among Females United States, 2005–2009. *Journal of Women's Health* 2013;22(6):471-474.
- 40. **Naumann RB**, Beck LF. Motor vehicle traffic-related pedestrian deaths—United States, 2001-2010. *Morbidity & Mortality Weekly Report* 2013;62(15):277-282.
- 41. **Naumann RB**, Dellinger AM. Mobile Device Use While Driving United States and Seven European Countries, 2011. *Morbidity and Mortality Weekly Report* 2013;62(10):177-182.
- 42. **Naumann RB**, Shults RA. Helmet use among motorcyclists who died in crashes and economic cost savings associated with state motorcycle helmet laws—United States, 2008-2010. *Morbidity and Mortality Weekly Report* 2012;61(23):425-430.
- 43. **Naumann RB**, Dellinger AM, Anderson ML, Bonomi AE, Rivara FP. Healthcare utilization and costs among older adult female drivers and former drivers. *Journal of Safety Research* 2012;43:141-144.
- 44. **Naumann RB**, Dellinger AM, Haileyesus T, Ryan GW. Older adult pedestrian injuries in the United States: causes and contributing circumstances. *International Journal of Injury Control and Safety Promotion* 2011;18(1):65-73.
- 45. West BA, Naumann RB. CDC Health Disparities and Inequalities Report United States, 2011: Motor Vehicle–Related Deaths—United States, 2003-2007. *Morbidity & Mortality Weekly Report Supplement* 2011;60:52-55.
- 46. **Naumann RB**, Dellinger AM, Kresnow MJ. Driving self-restriction in high-risk conditions: how do older drivers compare to others? *Journal of Safety Research* 2011;42(1):67-71.
- 47. Piland NF, Berger LR, **Naumann RM**. Economic costs of motor vehicle crashes and economic benefits of prevention for the San Carlos Apache Tribe. *The IHS Primary Care Provider* 2010;35(12):272-277.
- 48. **Naumann RB**, Dellinger AM, Zaloshnja E, Lawrence BA, Miller TR. Incidence and total lifetime costs of motor vehicle-related fatal and nonfatal injury by road user type, United States, 2005. *Traffic Injury Prevention* 2010;11(4):353-360.
- 49. **Naumann RB**, Dellinger AM, Anderson ML, Bonomi AE, Rivara FP, Thompson RS. Preferred modes of travel among older adults: what factors affect the choice to walk instead of drive? *Journal of Safety Research* 2009;40(5):395-398.
- 50. **Boyd RM**, Stevens JA. Falls and fear of falling: burden, beliefs, and behaviors. *Age and Ageing* 2009;38(4):423-428.
- 51. **Boyd R**, Kresnow M, Dellinger AM. Alcohol-impaired driving and children in the household. *Family and Community Health* 2009;32(2):167–174.

- 52. **Boyd R**, Kresnow M, Dellinger AM. Adult seat belt use: does the presence of children in the household make a difference? *Traffic Injury Prevention* 2008; 9(5):414-420.
- 53. Dellinger AM, **Boyd RM**, Haileyesus T. Fall injuries in older adults from an unusual source: entering and exiting a vehicle. *Journal of the American Geriatrics Society* 2008;56(4):609–614.

ABSTRACTS ACCEPTED FOR ORAL PRESENTATION (* denotes student led; ^ denotes senior author)

- * Shmuel S, Pate V, Pepin MJ, Bailey JC, Golightly YM, Hanson LC, Stürmer T, Naumann RB, Gnjidic D, Lund JL. Use of medications with anticholinergic and sedative properties and fall-related fractures among older adults. 37th International Conference on Pharmacoepidemiology & Therapeutic Risk Management. August 23-25, 2021.
- *^Shiue KY, Naumann RB, Austin AE, Proescholdbell S, Cox ME, Aurelius M. Leveraging literal text on death certificates to enhance understanding of drug overdose deaths in North Carolina, 2015-2019. Accepted for presentation at Council of State and Territorial Epidemiologists Annual Meeting. June 13-17, 2021.
- 3. *^Remch M, Mautz C, **Naumann RB**. Development, implementation, and evaluation of an alternative to restrictive housing -- Therapeutic Diversion Units -- in North Carolina prisons. 2021 Academic Consortium on Criminal Justice and Health Conference. Virtual. April 8-10, 2021.
- 4. *Clare HM, **Naumann RB**, Gunn IA, Hassmiller Lich K. Delivering lifesaving medication in North Carolina: a qualitative approach to informing a system dynamics model for opioid use disorder treatment. UNC Student Presentation Day focused on "Intersectional Approaches to Injury and Violence Prevention in a Post-COVID World." April 9, 2021.
- 5. *^Figgatt M, Cox MB, Kitlas A, **Naumann R**. Understanding the evolving overdose epidemic through data and partnerships in North Carolina. 2021 Rx Drug Abuse and Heroin Summit. Virtual. April 5-8, 2021.
- 6. White AM, Kuhlberg J, Naumann R, Hassmiller Lich K. Surfacing system perspectives to guide action and improve collaboration in comprehensive community-based suicide prevention. International Conference of the System Dynamics Society. Bergen, Norway. July 19-23, 2020. Virtual presentation.
- 7. **Naumann RB**, Kuhlberg J, Sabounchi N, Hassmiller Lich K. Examining impacts of a congestion pricing policy on road safety outcomes in New York City. International Conference of the System Dynamics Society. Bergen, Norway. July 19-23, 2020. Virtual presentation.
- 8. **Naumann RB**, Sabounchi N, Kuhlberg J, Hassmiller Lich K. Examining impacts of congestion pricing policies on road safety outcomes using a system dynamics approach. Society for Advancement of Violence and Injury Research Conference. Philadelphia, PA. April 27-29, 2020. However, conference canceled due to COVID-19 pandemic.
- 9. Figgat M, Ranapurwala S, **Naumann RB**, Junker G, Brown C, Proescholdbell S. Suicide mortality and firearm involvement among persons released from North Carolina prisons, 2000-2015. Society for Advancement of Violence and Injury Research Conference. Philadelphia, PA. April 27-29, 2020. However, conference canceled due to COVID-19 pandemic.
- 10. *Shiue KY, Dasgupta N, **Naumann RB**, Nelson AE, Golightly YM. Sociodemographic and clinical predictors of prescription opioid use in a longitudinal community-based cohort study. Society for Advancement of Violence and Injury Research Conference. Philadelphia, PA. April 27-29, 2020. However, conference canceled due to COVID-19 pandemic.
- 11. **Naumann RB**, Durrance CP, Ranapurwala SI, Austin AE, Proescholdbell SK, Childs R, Shanahan ME. Impact of a community-based naloxone distribution program on county-level opioid overdose death rates in North Carolina, 2013-2016. 2019 Council of State and Territorial Epidemiologists Annual Conference. Raleigh, NC. June 2-6, 2019.
- 12. Proescholdbell S, Ranapurwala SI, Shanahan ME, Brinkley-Rubinstein L, **Naumann RB**, Rosen DL, Marshall SW, Junker G, Brown S, Brown C. Overdose, suicide, and homicide deaths among justice-

- involved populations in North Carolina. 2019 Council of State and Territorial Epidemiologists Annual Conference. Raleigh, NC. June 2-6, 2019.
- 13. *^Singichetti B, Naumann R, Marshall S, Proescholdbell S. Deaths averted, injuries prevented, and costs saved by increased use of evidence-based behavioral road safety policies in North Carolina. 2019 Council of State and Territorial Epidemiologists Annual Conference. Raleigh, NC. June 2-6, 2019.
- 14. **Naumann RB**, Sandt L, Kuhlberg J, Heiny S, Hassmiller Lich K. Examining the rise in pedestrian fatalities: understanding the underlying system to inform more effective action. 2019 Society for Advancement of Violence and Injury Research Conference. Cincinnati, OH. April 1-3, 2019.
- 15. **Naumann RB**, Durrance CP, Ranapurwala SI, Austin AE, Proescholdbell SK, Shanahan ME. Impact of a community-based naloxone distribution program on opioid overdose death rates. 2019 Society for Advancement of Violence and Injury Research Conference. Cincinnati, OH. April 1-3, 2019.
- 16. *^Singichetti B, **Naumann R**, Marshall S, Proescholdbell S. Lives and costs saved by increased use of evidence-based road safety policy in North Carolina. 2019 Society for Advancement of Violence and Injury Research Conference. Cincinnati, OH. April 1-3, 2019.
- 17. **Naumann R**, Roberts A. The lock-in loophole: understanding intended and unintended effects of patient review and restriction programs. 2018 National Rx Drug Abuse & Heroin Summit. Atlanta, GA. April 4, 2018.
- 18. **Naumann R**, Dellinger A. Differences in the prevalence and characteristics of distracted driving in eight countries, 2011. 11th World Conference on Injury Prevention and Safety Promotion. Wellington, New Zealand. October 1-4, 2012. Abstract published in *Injury Prevention* 2012;18(S1):A73-A74.
- 19. **Naumann RB**, Dellinger AM. Aging-related concerns of the young and old by driving status, United States, 2010. International Conference on Aging, Mobility, and Quality of Life. Ann Arbor, MI. June 24-26, 2012.
- 20. **Naumann RB**, Dellinger AM, Stevens J, Baldwin G. Mobility characteristics of US older adult drivers and non-drivers. Transportation Research Boards' International Conference on Emerging Issues in Safe and Sustainable Mobility for Older People. Washington, DC. August 30-September 1, 2011.
- 21. **Naumann RB**, Dellinger AM. Translating research to practice: Effective strategies to reduce motor vehicle injuries among American Indian tribes. 10th World Conference on Injury Prevention and Safety Promotion. London, UK. September 21-24, 2010. Delivered by A. Dellinger.
- 22. Letourneau RJ, Crump CE, Wallace D, **Naumann R**. CDC Tribal Motor Vehicle Injury Prevention Program Evaluation Project: Lessons learned from the five-year CDC Tribal motor vehicle injury prevention program conducted in collaboration with four American Indian Tribes. 2009 American Public Health Association Conference. Philadelphia, PA. November 7-11, 2009.
- 23. **Naumann RB**, Dellinger A, Haileyesus T, Ryan G. Older adult pedestrian injuries in the U.S.: What are the leading causes and how big is the problem? 2009 National Environmental Public Health Conference. Atlanta, GA. October 26-28, 2009. Abstract published in *Public Health Reports*.
- 24. **Boyd RM**, Wallace DW. Effective strategies to reduce motor vehicle injuries among American Indians/Alaska Natives. 2009 Society for Advancement of Violence and Injury Research Conference. Atlanta, GA. March 6, 2009. Awarded "Best Abstract" of the conference.
- 25. **Boyd R**, Kresnow M, Dellinger AM. Alcohol-impaired driving: does the presence of children in the household make a difference? 2008 Safe Kids Child Injury Prevention Conference. Washington, D.C. October 16, 2008.

ABSTRACTS ACCEPTED FOR POSTER PRESENTATION (* denotes student led; ^ denotes senior author)

- 1. *Shmuel S, Pate V, **Naumann RB**, Hanson LC, Funk MJ, Lund JL. Longitudinal patterns of anticholinergic and sedative drug load among older adults. 37th International Conference on Pharmacoepidemiology & Therapeutic Risk Management. August 23-25, 2021.
- 2. ^Austin A, Di Bona V, Cox ME, Proescholdbell S, **Naumann R**. Use of medication for opioid use disorder and prescription opioids among mothers of infants diagnosed with neonatal opioid withdrawal

- syndrome. Centers for Disease Control and Prevention Overdose Data to Action (OD2A) Grant Recipient Meeting: "Intersecting the Drug Overdose Epidemic and the COVID-19 Pandemic: Challenges and Opportunities." June 22-23, 2021.
- 3. *Shmuel S, Pate V, Pepin MJ, Bailey JC, Golightly YM, Hanson LC, Sturmer T, Naumann RB, Gnjidic D, Lund JL. Use of drugs with anticholinergic and sedative properties and fall-related fractures among older adults. 2021 Society for Epidemiologic Research Annual Meeting. June 22-25, 2021.
- 4. *^Figgatt M, Austin AE, Cox MB, Proescholdbell S, Marshall SW, **Naumann R**. Polysubstance use trends in North Carolina. 2021 NC Opioid Misuse and Overdose Prevention Summit. May 4-6, 2021.
- 5. *^Shiue KY, Austin AE, Proescholdbell S, Cox ME, Aurelius M, Naumann RB. Leveraging literal text on North Carolina death certificates to enhance understanding of polydrug involvement in overdose deaths, 2015-2019. 2021 NC Opioid Misuse and Overdose Prevention Summit. May 4-6, 2021.
- 6. *Shiue K, Dasgupta N, **Naumann RB**, Nelson AE, Golightly Y. Sociodemographic and clinical predictors of prescription opioid use in a longitudinal community-based cohort study of middle-aged and older adults. 36th International Conference on Pharmacoepidemiology & Therapeutic Risk Management. Virtual. September 16-17, 2020.
- 7. *Shmuel S, Pate V, Golightly YM, Hanson LS, **Naumann RB**, Stürmer T, Pepin MJ, Bailey JC, Gnjidic D, Lund JL. Identifying fractures in Medicare claims before and after ICD-9-CM to ICD-10-CM transition. 36th International Conference on Pharmacoepidemiology & Therapeutic Risk Management. Virtual. September 16-17, 2020.
- 8. *Shmuel S, Pate V, Pepin MJ, Bailey JC, Hanson LS, Stürmer T, Naumann RB, Golightly YM, Gnjidic D, Lund JL. Anticholinergic and sedative drug load among Medicare beneficiaries. 36th International Conference on Pharmacoepidemiology & Therapeutic Risk Management. Virtual. September 16-17, 2020.
- 9. Sandt L, Heiny S, **Naumann RB**. Systems approaches to integrated health and injury control: guiding principles and practical applications for community engagement. 2019 Conference on Health and Active Transportation. Washington, DC. December 11-12, 2019.
- 10. *^Shiue K, **Naumann R**, Mohamadi Hezaveh A, Cherry C. Understanding the related issues of opioid use and motor vehicle crash injury: evaluating the current landscape and linkage potential of prescription drug monitoring programs and crash databases. North Carolina Opioid Summit. Raleigh, NC. June 11-12, 2019.
- 11. *Spade C, Naumann RB, LaJeunesse S, Cuthbertson C, Schlisky S, Evenson K. A review of US Vision Zero Plans: Understanding plan goals and approaches. Safe Systems Summit. Durham, NC. April 23-25, 2019.
- 12. Evenson KR, Cuthbertson CC, **Naumann RB**, Schilsky S, Spade C, LaJeunesse S. U.S. Vision Zero plans: Opportunity to support safer walking and bicycling. American College of Sports Medicine Annual Meeting. Orlando, FL. May 28-June 1, 2019.
- 13. Roehler DR, **Naumann RB**, Rudd RA, Kresnow M, Mwanje B, Brondum L, Dellinger AM. Translating the Global Helmet Vaccine Initiative to Uganda: An evaluation of motorcycle workshops. University of Michigan Injury Conference—Preventing injury: from research to practice to people. Ann Arbor, MI. September 30-October 1, 2013.
- 14. **Naumann R**, Dellinger A. Attitudes about electronic device use among self-reported distracted drivers in seven European countries, 2010. 11th World Conference on Injury Prevention and Safety Promotion. Wellington, New Zealand. October 1-4, 2012. Abstract published in *Injury Prevention* 2012;18(S1):A202.
- 15. Sebego M, Voetsch K, **Naumann R**, Dellinger A. Comparing fatal alcohol-related road traffic crashes in Botswana pre- and post-passage of a national alcohol levy. 11th World Conference on Injury Prevention and Safety Promotion. Wellington, New Zealand. October 1-4, 2012. Abstract published in *Injury Prevention* 2012;18(S1):A173.
- 16. Mutatina B, Nakitto M, **Naumann R**, Roehler D, Dellinger A. Helmet use in motorcycle taxi operators in Kampala, Uganda. 11th World Conference on Injury Prevention and Safety Promotion. Wellington, New Zealand. October 1-4, 2012. Abstract published in *Injury Prevention* 2012;18(S1):A194.
- 17. Dellinger AM, Engelberg M, Keller H, **Naumann RB**. Older adults and safety mobility: A market segmentation perspective. Transportation Research Board's International Conference on Emerging Issues in Safe and Sustainable Mobility for Older People. Washington, DC. August 30-September 1, 2011.

- 18. **Naumann RB**, Dellinger AM, Zaloshnja E, Lawrence BA, Miller TR. Incidence and total lifetime costs of motor vehicle-related fatal and nonfatal injury by road user type in the United States. 10th World Conference on Injury Prevention and Safety Promotion. London, UK. September 21-24, 2010. Abstract published in *Injury Prevention* 2010;16(1):A32.
- 19. **Naumann RB**, Dellinger AM, West BA, Annest JL, Ryan GW. Motorcycle Injuries across the United States, 2001-2008: Injury Comparisons and Projections. 10th World Conference on Injury Prevention and Safety Promotion. London, UK. September 21-24, 2010. Abstract published in *Injury Prevention* 2010;16(1):A81.
- 20. **Naumann RB**, Dellinger AM, Haileyesus T, Ryan GW. Older adult pedestrian injuries in the United States: what are the leading causes and how big is the problem? 10th World Conference on Injury Prevention and Safety Promotion. London, UK. September 21-24, 2010. Abstract published in *Injury Prevention* 2010;16(1):A71.
- 21. **Boyd RM**, Stevens J. Falls and fear of falling: burden, beliefs, and behavior. 2009 Society for Advancement of Violence and Injury Research Conference. Atlanta, Georgia. March 5, 2009.
- 22. Dellinger AM, **Boyd RM**, Kresnow MJ. Driving self-restriction in high-risk conditions: how do older drivers compare to others? 9th World Conference on Injury Prevention and Safety Promotion. Merida, Mexico. March 15-18, 2008.
- 23. Dellinger AM, **Boyd RM**, Haileyesus T. Fall injuries in older adults from an unusual source: entering and exiting a vehicle. 9th World Conference on Injury Prevention and Safety Promotion. Merida, Mexico. March 15-18, 2008.

INVITED PRESENTATIONS

- 1. **Naumann RB**, McDonald N, Keefe E, LaJeunesse S. Plenary Address: Unpacking Safe Systems concepts to inform our research and practice. NC DOT Research and Innovation Summit. October 6, 2021.
- 2. **Naumann RB**, Pollack Porter K, Orton S. Change management tools for Safe System implementation. Invited panelist for Collaborative Sciences Center for Road Safety Summer Learning Series. August 27, 2021.
- 3. **Naumann RB**. Systems analysis of NYC congestion pricing policy and pedestrian safety. Centers for Disease Control and Prevention Reverse Site Visit to UNC-Chapel Hill. August 3, 2021.
- 4. **Naumann RB**, Hassmiller Lich K, Scott S. Goal and action alignment mapping and synthesis. Southeastern and Southwestern Injury Prevention Network and Systems Thinking National Peer Learning Team Joint Annual Meeting. Two virtual workshops on map creation and synthesis. June 8 & 9, 2021.
- 5. **Naumann RB**, Austin A, Roberts A, Wang L. Policy evaluation of the NC Medicaid patient review and restriction ("lock-in") program: examining impacts on opioid use disorder services and treatment. NC Medicaid "Deep Dive" presentation. June 3, 2021.
- 6. **Naumann RB**, Hassmiller Lich K, Drain A, Catt C, Scott S. Leveraging a systems thinking approach for ACES and suicide prevention in a remote environment. Part 2: Applied Examples. Safe States webinar. May 27, 2021.
- 7. **Naumann RB,** Hassmiller Lich K. Sustainability planning and evaluation for ACES and suicide prevention: Collaborative Learning Institute. An interactive remote workshop with multisector practitioners from across the country. April 12, 2021.
- 8. **Naumann RB**. An introduction and thoughts on systems science. UNC Injury Epidemiology Journal Club presentation. March 29, 2021.
- 9. **Naumann RB**, Hassmiller Lich K, Guynn I. A workshop on applying Balance of Petals Mapping to injury and violence prevention. A virtual workshop for the Systems Thinking National Peer Learning Team. March 29, 2021.
- 10. **Naumann R**, Hassmiller Lich K. Goal and action alignment map synthesis for ACES and suicide prevention: Collaborative Learning Institute. An interactive remote workshop with multisector practitioners from across the country. March 1, 2021.

- 11. **Naumann R**, Austin A, Fliss M. NC Division of Public Health and UNC Injury Prevention Research Center collaborations on opioid-related research. Epidemiology Lunch and Learn Webinar. January 21, 2021.
- 12. **Naumann R**, Hassmiller Lich K. Goal and action alignment for ACES and suicide prevention: Collaborative Learning Institute. An interactive remote workshop with multisector practitioners from across the country. January 11, 2021.
- 13. **Naumann R**. Using the 5Rs to support ACEs and suicide prevention in a remote environment. An interactive remote workshop with multisector practitioners from across the country. November 30, 2020.
- 14. Hassmiller Lich K, **Naumann RB**. A Workshop on Understanding and Operationalizing the 5Rs Framework. An interactive remote workshop for the Systems Thinking National Peer Learning Team. November 16, 2020.
- 15. **Naumann R**, Hassmiller Lich K, Scott S, Jagannathan V, Campbell J. Leveraging a systems thinking approach for ACEs and suicide prevention in a remote environment. Safe States webinar. Sept 28, 2020.
- 16. **Naumann R.** Using systems approaches and building diverse partnerships to prevent leading causes of injury death. Researchers' Lunch with the Dean. Chapel Hill, NC. February 17, 2020.
- 17. **Naumann R**, Sandt L. Exploring the systems that lead to roadway fatalities. Safe Systems Transportation Research Forum legislative briefing. Chapel Hill, NC. October 10, 2019.
- 18. **Naumann R**. Collaboration with state and local organizations to improve the public health evidence base on opioid overdose prevention. UNC Networking Symposium on Hot Topics: Collaborative Science on Opioid Addiction. Chapel Hill, NC. October 4, 2019.
- 19. **Naumann R**, Kuhlberg J. Using systems approaches to inform Vision Zero action. NC Traffic Safety Conference and Expo. Invited pre-conference workshop. Raleigh, NC. August 5, 2019.
- 20. **Naumann R**. Impact of naloxone distribution on opioid overdose deaths. North Carolina Opioid Summit. Raleigh, NC. June 11-12, 2019.
- 21. **Naumann R**, Hassmiller Lich K. Examining Vision Zero planning across the U.S. and exploring systems approaches to facilitate Vision Zero planning and implementation. NC Vision Zero Task Force Quarterly Meeting. Raleigh, NC. May 10, 2019.
- 22. **Naumann R**, Eluru N. Navigating complex transportation systems. Safe System Summit. Durham, NC. April 23-24, 2019.
- 23. Kuhlberg J, **Naumann R**, Hassmiller Lich K. Tackling wicked problems using systems mapping. Safe Systems Summit. Durham, NC. April 23-24, 2019.
- 24. **Naumann R.** Impact of a community-based naloxone distribution program on opioid overdose death rates. Briefing to Section Chief of Chronic Disease and Injury, North Carolina Department of Health and Human Services. January 30, 2019.
- 25. Hassmiller Lich K, Kuhlberg J, **Naumann R**, Lemke M, Lockwood I, Kumfer W, Sandt L. Workshop: Exploring the complexity of pedestrian fatality trends: understanding the underlying system to inform more effective action. 2019 Transportation Research Board Annual Meeting. Washington, DC. January 17, 2019.
- 26. **Naumann R,** Marshall S, White AM, McClure R, Sandt L, Smith S. Systems thinking for injury and violence prevention practice. Webinar sponsored by the National Peer Learning Team for Systems Thinking at the NC Division of Public Health Injury and Violence Prevention Branch and the Collaborative Sciences Center for Road Safety at the University of North Carolina at Chapel Hill. December 18, 2018.
- 27. **Naumann R.** Injury Control Research Centers: Bringing a public health approach to transportation safety. U.S. Department of State International Visitor Leadership Program- African Delegation. Chapel Hill, NC. December 3, 2018.
- 28. **Naumann R.** A public health perspective on systems thinking and transportation. Presentation for the Collaborative Sciences Center for Road Safety's Executive Committee. Raleigh, NC. August 10, 2017.
- 29. **Naumann R.** Overview of key findings from NC Medicaid "lock-in" program evaluation research. Presentation for the North Carolina Division of Medical Assistance (responsible for Medicaid administration in NC). Raleigh, NC. August 3, 2017.

- 30. **Naumann R**. North Carolina's universal motorcycle helmet law: Collaborative research between the North Carolina Division of Public Health and the University of North Carolina's Injury Prevention Research Center. Presentation for the North Carolina Division of Public Health's motorcycle partners meeting. Raleigh, NC. January 6, 2015.
- 31. **Naumann R**. Motorcycle safety and North Carolina's universal motorcycle helmet law. Presentation for the North Carolina Division of Public Health's Injury and Violence Prevention State Advisory Council. Raleigh, NC. November 19, 2014.
- 32. **Naumann R**, Sebego M, Rudd R, Voetsch K, Dellinger A, Ndlovu C. Effect of alcohol and road traffic policies on crash rates in Botswana, 2004-2011: A time-series analysis. Invited presentation. Transportation Research Board Annual Meeting. Washington, DC. January 14, 2014.
- 33. **Naumann R**. Why planning and evaluation are critical for child passenger safety programs. 10th Annual Child Passenger Safety Technical Conference. Atlantic City, New Jersey. October 27, 2012.
- 34. **Naumann R**. CDC's International Road Safety Work: A focus on evaluation, surveillance, training/capacity building. Transport and Road Safety Department, University of New South Wales. Sydney, Australia. October 9, 2012.
- 35. **Naumann R**, Sebego M. Alcohol-related crashes pre- and post-passage of a national alcohol levy. Road Safety Reference Group. University of Botswana. Gaborone, Botswana. September 12, 2012.
- 36. **Naumann R**. Distracted driving: Where is the science and what can states do? Core Violence and Injury Prevention Program Annual Meeting. Atlanta, Georgia. May 2, 2012.
- 37. **Naumann R**. Does my program work? Why evaluation is critical. Pennsylvania Childhood Trauma and Injury Prevention Conference 2012. Keynote speaker. Lancaster, Pennsylvania. April 24, 2012.
- 38. **Naumann R**. Safe driving at older ages. Mercer Senior University Seminar. Guest Lecturer. Atlanta, Georgia. February 1, 2012.
- 39. **Naumann R**, Dellinger A. Global road safety: Burden and prevention strategies. Botswana Decade of Action Working Group. Ministry of Health; Gaborone, Botswana. June 7, 2011.
- 40. Mutatina B & **Naumann R**. Helmet use in commercial motorcyclists in Kampala and Mbale Districts. Uganda Helmet Vaccine Initiative Research Symposium. Kampala, Uganda. June 1, 2011.
- 41. **Naumann RB**, Dellinger AM, Zaloshnja E, Lawrence BA, Miller TR. Incidence and total lifetime costs of motor vehicle-related fatal and nonfatal injury by road user type in the United States. National Center for Injury Prevention and Control All Hands Meeting: CDC Shephard Award Nominee Presentations. Atlanta, Georgia. May 4, 2011.
- 42. **Naumann RB**. Translating research to practice: Effective strategies to reduce motor vehicle injuries among American Indians. CDC's National American Indian and Alaska Native Heritage Month Events. Invited speaker. November 10, 2009.

INVITED PANEL MODERATION/ DISCUSSANT LEADER/ REACTANT

- 1. **Naumann R** (moderator) and panelists: Thomas D, Ortiz A, Chen K, Hoyt McBeth S. Collaborative Sciences Center for Road Safety Summer Learning Series: Redesigning the System to Support Safety. July 30, 2021. Webinar.
- 2. **Naumann R.** Invited panelist/reactant at Duke-FDA Virtual Workshop on Assessing and Incorporating Intervention Effectiveness in Systems Models of the Opioids Crisis. October 20-22, 2020. Virtual meeting.

PODCASTS AND OTHER MEDIA

 Naumann R. Opioids, road safety, and the effectiveness of public policy as an injury prevention tool. BMJ Talk Medicine. Released August 11, 2020. Available at: https://soundcloud.com/bmjpodcasts/opioids-road-safety-and-the-effectiveness-of-public-policy-as-an-injury-prevention-tool/s-axOJzOG8XIL

- 2. **Naumann R**. What are you looking at? HHS HealthBeat Podcast Series. Washington (DC): U.S. Department of Health and Human Services, released April 17, 2013. Available at: http://www.hhs.gov/news/healthbeat/2013/04/20130417a.html
- 3. **Naumann R**. Eyes on the road. CDC podcasts: A cup of health. Atlanta, GA: CDC, released March 14, 2013. Available at: http://www2c.cdc.gov/podcasts/player.asp?f=8627653
- 4. **Naumann R**. Keeping older drivers safe on the road. CDC podcasts: Healthy Aging Series. Atlanta, GA: CDC, National Center for Injury Prevention and Control, released March 15, 2010. Available at: http://www2c.cdc.gov/podcasts/player.asp?f=806883#transcript
- 5. **Naumann R**. America's crash costs. HHS HealthBeat Podcast Series. Washington (DC): U.S. Department of Health and Human Services, released October 20, 2010. Available at: http://www.hhs.gov/news/healthbeat/2010/10/20101020a.html

DISSERTATION AND THESIS

- 1. **Naumann RB**. Assessing sustained and differential impacts of North Carolina's Medicaid "Lock-in" Program [Dissertation]. Chapel Hill: University of North Carolina; 2017. 185 pages.
- 2. **Boyd R**. Seat belt use and alcohol-impaired driving among adults with and without children: findings from the Second Injury Control and Risk Survey [Thesis]. Atlanta: Emory University; 2007. 81 pages.

TEACHING EXPERIENCE

COURSES

EPID 625/MHCH 625/ HBEH 625: Injury as a Public Health Problem. UNC School of Public Health. Secondary instructor. 12 students (undergraduate and graduate). Fall 2021.

GUEST LECTURES

- 1. Clemson University, MTSA 8300: Road Safety Management. Master's of Transportation Safety Administration degree program. Lecture on: "Integrating Systems Thinking Tools into Road Safety Research and Practice." April 27, 2021.
- 2. PLAN 823: Planning Workshop. UNC Department of City & Regional Planning. Project Pitch on "NC Vision Zero and Community Readiness Assessments." January 25, 2021.
- 3. PLAN 636: Urban Transportation Planning. UNC Department of City & Regional Planning. Lecture on: "U.S. Road Safety: History, Future Directions, and Tools to Support New Approaches." October 1, 2020.
- 4. EPID 625/MHCH 625/ HBEH 625: Injury as a Public Health Problem. UNC School of Public Health. Lecture on: "U.S. Road Safety: Where have we come from and where are we going." October 29, 2019 and September 10, 2020.
- 5. PLAN 636: Urban Transportation Planning. UNC Department of City & Regional Planning. Lecture on: "Road Safety in the U.S.: Where have we come from and where are we headed." October 24, 2019.
- 6. PLAN 590: Roadways for a Safer Future. UNC Department of City & Regional Planning. Lecture and activity on: "Exploring and Using Systems Approaches to Inform Transportation Safety." September 9, 2019.
- 7. EPID 766: Epidemiologic Research Using Healthcare Databases. Department of Epidemiology, UNC School of Public Health. Lecture on: "North Carolina Medicaid Claims Data and Examples of Using Medicaid Data for Opioid-related Research." March 22, 2019.
- 8. EPID 625/MHCH 625/ HBEH 625: Injury as a Public Health Problem. UNC School of Public Health. Lecture on: "Systems Approaches to Road Traffic Injury Prevention." November 8, 2018.
- 9. PLAN 636: Urban Transportation Planning. UNC Department of City & Regional Planning. Lecture on: "Systems Thinking and Transportation Safety." October 25, 2018.

TEACHING ASSISTANT

Aug 2016-Dec 2016

Analytic Methods in Observational Epidemiology (EPID 718)

Lead Instructor: Dr. Brian Pence

University of North Carolina, Chapel Hill, North Carolina

- Met weekly with students to answer questions on course content and consult on individual data analysis projects, graded students' independent data analysis projects
- Course content included an in-depth examination of analytic methods for observational epidemiologic studies with an emphasis on the importance of study design in creating and executing analysis plans
- Presented course material in classroom

GRADUATE STUDENT ADVISING/TRAINING/MENTORSHIP

DISSERTATION COMMITTEES, CHAIR

Bhavna Singichetti, Doctoral candidate in Epidemiology, Impacts of alcohol-related driving license suspensions on recidivism and crash outcomes in North Carolina. (2021-present).

DISSERTATION COMMITTEES, MEMBER

Kristin Shiue, Doctoral candidate in Epidemiology, Age, period, and cohort influences on opioid use trends. (2021-present).

John Catalano, DrPH candidate in Health Policy, College student depression, anxiety disorder, and suicide: institutional trends, associations, and mitigation interventions (2020-present)

Katie Wolff, Doctoral candidate in Epidemiology, A comprehensive examination and burden assessment of firearm-related injury and death in North Carolina from 2010-2017 (2020-2021)

Josie Caves Sivaraman, Doctoral candidate in Epidemiology, The association between mental health/substance use disorders and suicide in the North Carolina Medicaid population (2019-2020)

Shahar Shmuel, PhD in Epidemiology, Anticholinergic and sedative drug load in older adults (2018-2020)

MASTERS CAPSTONE, REVIEWER

Tricia Tiu, Physician Assistant Program, Prescription drug monitoring programs: a response to the opioid epidemic. 2nd reader. (2018)

MASTERS THESES, READER

Celia Stafford, MPH in Biostatistics, Predicting dropout from opioid addiction treatment: a machine learning approach. 1st reader. (2019-2020)

Lillie Molavi, MBA/MPSH in Health Policy and Management, A therapeutic alternative to solitary confinement: a cost-effectiveness study. 2nd reader. (2019-2020)

INJURY PREVENTION FELLOWSHIP PROGRAM, FORMAL MENTOR

Belinda Rose Young, PhD student in Department of Health Behavior, 2019-2021

INTRADEPARTMENTAL REVIEW COMMITTEE, MEMBER

Kristin Shiue, PhD student in Department of Epidemiology, 2021 Bhavna Singichetti, PhD student in Department of Epidemiology, 2021

UNIVERSITY, SCHOOL, DEPARTMENT, AND CENTER SERVICE

Reviewer for 2019, 2020, and 2021 cohorts of UNC Injury Prevention Research Center Fellows

PROFESSIONAL SERVICE

NATIONAL COMMITTEES AND PROFESSIONAL ASSOCIATIONS

Academic Consortium on Criminal Justice Health, member 2021

Systems Thinking National Peer Learning Team, member,

sponsored by the Centers for Disease Control and Prevention 2017-2021

Student and Young Professional Committee, Society for

Advancement of Violence and Injury Research 2015- 2020

Committee Research Coordinator, Transportation Research

Board Safe Mobility for Older Persons Committee 2012- 2020

AD HOC SCIENTIFIC JOURNAL PEER REVIEW

Accident Analysis and Prevention

Addiction

American Journal of Lifestyle Medicine

Drug and Alcohol Dependence

Milbank Quarterly

North Carolina Medical Journal

Transportation Research Record

CONFERENCE PLANNING COMMITTEES/ABSTRACT PEER REVIEW

2020 UNC Injury Prevention Research Center Exploratory Grants, grant reviewer

2020 Collaborative Learning Institute (to build systems thinking capacity), applicant reviewer

2020 Society for Advancement of Violence and Injury Research, abstract reviewer

2019 North Carolina Opioid Summit, abstract reviewer

2019 Safe Systems Summit, planning committee

GRANTS AND FUNDING

Active

Contract# 2000042482 (NC GHSP) Naumann (PI)/LaJeunesse (co-PI) 10/01/20-09/30/22 Strengthening and Diversifying Vision Zero (VZ) Coalitions and Road Safety Action in NC Communities In NC, six communities have committed to implementing local Vision Zero programs, and the state's transportation secretary has announced an overall NC VZ initiative. With this support, NC has an opportunity to demonstrate what strategic, tailored, and effective VZ planning and implementation can look like across a range of settings and communities, potentially becoming a model for other states and more importantly lowering the number killed or seriously injured from road traffic crashes. The purpose of this project is to 1) reinforce and diversify sector and discipline representation within NC VZ community coalitions; 2) build capacity among these multi-disciplinary NC VZ coalitions to work cohesively towards VZ implementation by conducting a three-day NC VZ "leadership team" training; and 3) provide consistent support and "coaching" to NC VZ communities to ensure momentum on specific VZ planning and implementation tasks.

Role: Principal Investigator

Amount: \$564,765 (total funding; \$513,422 direct costs); most recent year share: \$298,328 (total funding)

1-R49-CE003092-01 (CDC)

Marshall (PI)

08/01/19-07/31/24

UNC Injury Prevention Research Center

For more than 30 years, the University of North Carolina (UNC) Injury Prevention Research Center (IPRC) has transformed and advanced the field of injury control. IPRC is well-positioned to continue to be a world leader in collaborative efforts to reduce the incidence and burden of injury and violence. The mission is to build the field of injury and violence prevention (IVP) through interdisciplinary research studies and by training the next generation of IVP researchers and practitioners. The theme for the 5-year proposal described in this application is "building injury and violence prevention capacity for protecting vulnerable populations." Our Research Core is organized around five focus areas, which are closely aligned with the priorities of CDC's NCIPC: Gender-based Violence, Opioid Drug Overdose, Child Abuse & Neglect, Traumatic Brain Injury, and Road Traffic Injury.

Role: Co-Investigator

Amount: \$4,201,429 (total funding)

R01CE003334 (CDC)

Austin (PI)

09/30/21-09/29/24

Examining State SNAP Policies as a Primary Prevention Strategy for Early Life Exposure to Violence and Other Adverse Childhood Experiences

The goal of this project is to examine the association of state adoption of specific SNAP eligibility and enrollment policies with rates of early life exposure to violence and other ACEs.

Role: Co-Investigator

Amount: \$1,036,547 (total funding)

30-2019-020-DHB (NC DHHS)

Naumann (PI)

06/01/20-06/30/22

Policy Evaluation of the NC Medicaid Patient Review and Restriction ("Lock-In") Program: Examining Impacts on Opioid Use Disorder Services and Treatment

"Lock-in" programs aim to reduce opioid use disorders (OUD) and overdose by identifying high-risk beneficiaries and attempting to control their access to opioid drugs. While these programs are widely used (almost every state has a Medicaid "lock-in" program (MLIP)), little is known about their clinical and public health effects; this project will examine whether the NC MLIP is effective in connecting diverse beneficiaries to a wide range of OUD treatment services and increasing naloxone dispensing.

Role: Principal Investigator

Amount: \$85,522 (total funding; \$77,747 direct costs)

39061 (NC Div of Public Health)/ CE19-1904 (CDC)

Overdose Data to Action

Naumann (PI)

09/01/19-08/31/22

The goal of this project is to evaluate and advance strategies to prevent opioid overdose in North Carolina. Projects supported under this contract included evaluation of the Department of Public Safety's opioid overdose prevention efforts, examination of Office of Chief Medical Examiner's opioid overdose surveillance processes, and other state-based prevention efforts.

Role: Principal Investigator

Amount: \$561,000 (total funding across all years; direct costs: \$510,364); most recent year share: \$228,000 (total funding)

\$228,000 (total funding)

Contract # 00043028 (NC Div of Public Health)/CDC Young (PI) 11/01/21-07/31/22

Applying a Systems Thinking Lens to Practice-based Evidence for ACEs Prevention and Response with NC Communities

This project utilizes a systems thinking approach to assist communities in North Carolina disproportionately burdened by ACEs (adverse childhood experiences) in developing a shared understanding of community-level structures that create and reinforce ACEs. Through ongoing

engagement, this project creates personalized, community-level causal loop diagrams to help communities 1) identify shared drivers of ACEs in communities and 2) identify potential ways to intervene in their system and ultimately mitigate ACEs.

Role: Consultant

Amount: \$150,000 (total funding)

69A3551747113 (US DOT) Harkey, Sandt (Center PIs) 11/30/16 - 09/30/23

Collaborative Sciences Center for Road Safety (CSCRS)

This Center accelerates progress in reducing transport injuries and fatalities by utilizing a systems approach to meld perspectives from planning, engineering, public health, data science, and robotics. Led by the UNC Highway Safety Research Center in collaboration with the UNC Injury Prevention Research Center and the UNC Department of City and Regional Planning, CSCRS unites leading transportation research, planning, public health, data science, and engineering programs at Duke University; Florida Atlantic University; University of California, Berkeley; University of Tennessee, Knoxville; and UNC-Chapel Hill. The goal of the CSCRS is to accelerate progress in reducing transportation-related injuries and fatalities by utilizing both Safe Systems and systems science principles, tools, and techniques. I have served lead roles on several of the Center's research projects, as demonstrated below.

Role: Investigator

Amount: \$11,489,601 awarded across first four years (total funding)

CSCRS Project R39 Naumann (PI) 06/01/21-05/31/22

Integrating systems thinking tools into Vision Zero and Safe Systems approaches
This project aims to develop systems thinking-based content and guidance materials to strengthen the implementation of VZ and Safe Systems approaches. We will develop materials that help stakeholders establish a firm foundation and deepen their understanding of the system (of policies, norms, funding streams, equitable/inequitable processes, etc.) underlying their road safety outcomes, setting the stage for more effective Vision Zero planning and implementation.

Role: Principal Investigator

Amount: \$143,236 (total funding)

CSCRS Project R33 Evenson (PI) 06/15/21-06/14/22

US Regional Vision Zero Implementation

This project aims to assess how Vision Zero is being implemented nationwide at a regional level, with or without a plan, and identify strengths and weaknesses of differing approaches to safety programming.

Role: Co-Investigator

Amount: \$97,463 (total funding)

Completed

69A3551747113 (US DOT) Harkey, Sandt (Center PIs) 11/30/16 - 09/30/22

Collaborative Sciences Center for Road Safety (CSCRS)

CSCRS Project R1 LaJeunesse (PI), Marshall (co-PI) 03/01/17- 11/30/18

Structures of Stakeholder Relationships in Making Road Safety Decisions

The goal of this project is to examine transportation safety network structures that ultimately result in high quality transportation safety decisions. This project utilizes organizational network analyses to examine the structure and attribute of road safety coalitions across the country.

Role: Investigator

Amount: \$200,000 (total funding)

CSCRS Project R16

Cherry (PI)

07/01/18 - 06/30/19

Opioids at the Health and Transportation Safety Nexus

The goal of this project is to better understand the prevalence of opioid prescriptions after a trafficrelated crash, and how often that prescription leads to future negative outcomes.

Role: Co-Investigator

Amount: \$77,670 (total funding)

CSCRS Project R17

Evenson (PI)

05/01/18 - 01/30/20

Strengthening Existing and Facilitating New Vision Zero Plans

The goal of this project is to analyze current Vision Zero plans from municipalities across the U.S. and to develop a guidance document for future plan development that outlines attributes and features of high-quality plans. This includes building a systems perspective into plan development and implementation.

Role: Co-Investigator

Amount: \$183,484 (total funding)

CSCRS Project R30

McDonald (PI)

06/15/19-06/15/21

Urban Freight and Road Safety: Trends and Innovative Strategies

The goal of this project is to evaluate the impacts of urban freight on road safety through detailed spatial and longitudinal analyses. We also aim to review novel last-mile delivery options and identify the advantages and disadvantages of these options in improving road safety.

Role: Co-Investigator

Amount: \$106,158 (total funding)

CSCRS Project R21

Naumann (PI)

08/01/19 - 08/31/21

A Systems Approach to Pedestrian Safety, Phase II: Examining Congestion Pricing Policies

The goal of this project is to develop a system dynamics simulation model that can be used as a learning tool to explore the pedestrian safety impacts of specific, current policy approaches. Given the recent focus and proposed implementation of congestion pricing policies in the U.S., we will specifically explore the pedestrian safety impacts of these policies, illustrating how system dynamics tools can be used to create virtual learning environments and explore potential system-wide effects of policies prior to implementation.

Role: Principal Investigator

Amount: \$99,982 (total funding)

CSCRS Project RR1

Sandt (PI), Naumann (co-PI)

03/14/18 - 05/31/19

Explaining the Rise in Pedestrian Fatalities: A Safe Systems Approach

The goal of this project is to convene a diverse group of cross-sector experts and examine available data sources to explore the underlying and complex factors driving the national rise in pedestrian deaths. The project is designed to put innovative systems science tools and theory to work, demonstrating a powerful means for examining underlying drivers of complex problems and exploring effective leverage points for interventions.

Role: Co-Principal Investigator Amount: \$53,000 (total funding)

CSCRS Project RR2

Evenson (PI)

06/15/20-06/14/21

US Vision Zero Implementation

The goals of this project are to: 1) assess how Vision Zero is being implemented nationwide, with or without a plan; 2) identify strengths and weaknesses of differing approaches to Vision Zero implementation and best practices for success; and 3) identify how COVID-19 has impacted Vision Zero efforts and what community responses and impacts occurred.

Role: Co-Investigator

Amount: \$78,686 (total funding)

Contract #TBD (NC GHSP) Waller (PI) 10/01/20-09/30/21

Linking Crash Reports to Health Data in North Carolina: Adding Claims Data to Measure Cost Outcomes

Outcomes

This project will continue a demonstration project to link health outcomes data with crash data in the state of North Carolina. The project will involve expanding the number of years of linked data between key health data sources and crash data, as well as the development and testing of a web-based data dashboard to make the linked data available to more users through aggregate reports, fact sheets, and other data presentations.

Role: Motor Vehicle Crash and Vision Zero Systems Expert Amount: \$318,995 (total funding; \$289,995 direct costs)

Contract # 00040936 (NC Div of Public Health) Young (PI) 09/01/20-07/31/21

ACEs and Suicide Prevention in a Remote Environment

A Centers for Disease Control and Prevention-funded project in response to COVID-19. The project examines how adverse childhood experiences (ACEs) and suicide prevention can be adapted to meet evolving community needs during the current pandemic and future disasters. The project demonstrates how to leverage systems thinking approaches to begin or advance prevention and response initiatives related to population health issues, such as ACEs and suicide.

Role: Consultant

Amount: \$173,913 (total funding)

Contract #00040253 (NC Div of Public Health) Young (PI) 08/01/20-07/31/21 Systems Thinking National Peer Learning Team and Southeastern and Southwestern Injury Prevention Network

The purpose of the Centers for Disease Control and Prevention's injury prevention network hubs is to regionally coordinate with injury and violence prevention organizations in specific regions of the country to share scientific evidence and injury prevention program best practices. The hubs also house National Peer Learning Teams to connect partners across the country in learning about a specific topic area related to injury prevention and identify areas for high-leverage solutions. The Southeastern and Southwestern National Peer Learning Team is focused on systems thinking best practices for injury prevention work.

Role: Consultant

Amount: \$75,000 (total funding)

R01-CE003009-01-00 (CDC) Ranapurwala (PI) 09/30/18-07/31/21

Evaluation of State-mandated Acute and Post-Surgical Pain-specific CDC Opioid Prescribing Guidelines The goal of this project is to evaluate the statewide implementation of CDC's prescribing guideline for acute and post-surgical pain on opioid prescribing and patients' opioid safety health outcomes (e.g., overdose, inappropriate opioid tapering).

Role: Co-Investigator

Amount: \$2,039,525 (total funding; direct costs: \$1,390,047)

No contract # (Gillings Innovation Lab) Marshall, Lich (co-PIs) 01/01/18 - 06/30/20

Systems Science to Improve State Planning on Opioid Addiction and Overdose

The goal of this project is help NC agencies develop evidence-driven, cross-agency collaborative initiatives that are effective for reducing opioid misuse, dependence, and overdose.

Role: Co-Investigator

Amount: \$100,000 (total funding; indirect costs not permitted)

1R49CE002093 (CDC) White (PI); Lich (sub-contract PI) 05/01/18-12/31/19

System Dynamics Modeling to Examine Comprehensive Community-based Suicide Prevention The goal of this project is to examine the complex, persistent problem of suicide and the impacts of community-based suicide prevention interventions, using system dynamics modeling.

Role: Co-Investigator

Amount: \$60,111 (total funding of sub-contract to UNC; direct costs to UNC: \$38,729)

 CDC-RFA-CE15-1501 (CDC)
 Shanahan (PI)
 05/01/16 - 08/31/16 &

 Prescription Drug Overdose Prevention for States
 06/01/18 - 08/31/18

The goal of this project is to evaluate and advance strategies to improve safe prescribing practices and prevent prescription drug overuse, misuse, abuse, and overdose.

Role: Analyst

Amount: \$44,000 (total funding; direct costs: \$40,000)