

Natalie Riva Smith
Postdoctoral Fellow

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Academic History

Fellowship Training

- 2022 – Pr Pyle Postdoctoral Fellow (Davene Wright, mentor)
Department of Population Medicine, Harvard Pilgrim Health Care
Institute, Boston, MA
- 2021 – Pr Postdoctoral Fellow (Douglas Levy and Karen Emmons, mentors)
Harvard Cancer Prevention Program, Harvard TH Chan School of
Public Health, Boston, MA

Education

- 2017 – 2021 **PhD** Health Policy and Management: Decision Sciences
Gillings School of Global Public Health, UNC Chapel Hill, NC
- 2015 – 2017 **MS** Biostatistics
Gillings School of Global Public Health, UNC Chapel Hill, NC
- 2011 – 2015 **BS** Interdisciplinary Science (statistics and epidemiology)
Purdue University, West Lafayette, IN

Peer Reviewed Publications

1. Martinez, R.A., Andrabi, N., Goodwin, A.N., Wilbur, R.E., **Smith, N.R.**, Zivich, P.N. Conceptualization, operationalization, and utilization of race and ethnicity in major epidemiology journals 1995-2018: a systematic review. *American Journal of Epidemiology*, in press.
2. **Smith, N.R.**, Mazzucca, S., Hall, M.G., Brownson, R.C., & Frerichs, L. (2022) Opportunities to improve policy dissemination by tailoring communication materials to the research priorities of legislators. *Implementation Science Communications*. 3(24).
3. Frerichs, L., **Smith, N.R.**, Kuhlberg, J.A., Mason, G., Jackson-Diop, D., Stith, D., Corbie-Smith, G., & Hassmiller Lich, K. (2020) Novel participatory methods for co-building an agent-based model of physical activity with youth. *PloS One*. 15(11): e0241108.
4. **Smith, N.R.**, Zivich, P., Frerichs, L., Moody, J., & Aiello, A.E. (2020). A guide for choosing community detection algorithms in social network studies: The Question-Alignment approach. *American Journal of Preventive Medicine*, 59(4), 597-605.
5. **Smith, N.R.**, Grummon, A.H., & Frerichs, L. (2020). Demographic groups likely affected by regulating sugar-sweetened beverage portion sizes. *American Journal of Preventive Medicine*, 59(3), e135-e139.

6. **Smith, N. R.**, Zivich, P. N., & Frerichs, L. (2020). Social Influences on Obesity: Current Knowledge, Emerging Methods, and Directions for Future Research and Practice. *Current Nutrition Reports*, 9(1), 31-41.
7. Grummon, A. H., **Smith, N. R.**, Golden, S. D., Frerichs, L., Taillie, L. S., & Brewer, N. T. (2019). Health Warnings on Sugar-Sweetened Beverages: Simulation of Impacts on Diet and Obesity Among US Adults. *American journal of preventive medicine*, 57(6), 765-774.
8. Frerichs, L., **Smith, N. R.**, Lich, K. H., BenDor, T. K., & Evenson, K. R. (2019). A scoping review of simulation modeling in built environment and physical activity research: Current status, gaps, and future directions for improving translation. *Health & place*, 57, 122-130.
9. Frerichs, L., **Smith, N. R.**, Lyden, J., Gaskin, K., Skinner, A., & Armstrong, S. (2018). Weight-related quality of life and temperament as predictors and moderators of outcomes among treatment-seeking, low-income, ethnically diverse children with obesity. *Translational behavioral medicine*, 10(1), 244-253.
10. Linnan, L., Arandia, G., Bateman, L. A., Vaughn, A., **Smith, N.**, & Ward, D. (2017). The health and working conditions of women employed in child care. *International journal of environmental research and public health*, 14(3), 283.
11. **Smith, N. R.**, Ferraro, K. F., Kemp, B. R., Morton, P. M., Mustillo, S. A., & Angel, J. L. (2016). Childhood misfortune and handgrip strength among Black, White, and Hispanic Americans. *The Journals of Gerontology: Series B*, 74(3), 526-535.
12. **Smith, N. R.**, Jensen, B. W., Zimmermann, E., Gamborg, M., Sørensen, T. I., & Baker, J. L. (2016). Associations between birth weight and colon and rectal cancer risk in adulthood. *Cancer epidemiology*, 42, 181-185.
13. Jaff, D. O., Aziz, T. A., & **Smith, N. R.** (2015). The incidence of rotavirus and adenovirus infections among children with diarrhea in Sulaimani Province, Iraq. *Journal of Biosciences and Medicines*, 4(1), 124-131.

Papers In Progress

1. **Smith, N.R.**, Knocke, K.E., & Hassmiller Lich, K. Using decision analysis to support implementation planning in research and practice (*under review*)
2. **Smith, N.R.**, Frerichs, L., Grummon, A.H., Wright, S.T., & Ng, S.W. A scoping review of simulation models of sugary drink policies. (*under review*)
3. **Smith, N.R.**, Hassmiller Lich, K., Ng, S.W., Trogon, J.G., & Frerichs, L. An approach to assess the costs of public health policies using implementation science and health economics. (*in preparation*)
4. Chriqui, J., Asada, Y., **Smith, N.R.**, Kroll-Desrosiers, A., & Lemon, S. Advancing the Science of Policy Implementation: A Call to Action for the Implementation Science Field. (*in preparation*)
5. Martinez, R.A., **Smith, N.R.**, Wilbur, R.E., Andrabi, N., Goodwin, A.N., Zivich, P.N. Threats to equity: Missing methodological details about race and ethnicity in health research. (*in preparation*)

6. Martinez, R.A., Wilbur, R.E., Andrabi, N., Goodwin, A.N., **Smith, N.R.**, Zivich, P.N. Race and ethnicity in major medical journals 1995-2018: a systematic review (*in preparation*)

Grants

2022	Pyle Fellowship, Department of Population Medicine, Harvard Pilgrim Healthcare Institute Postdoctoral Fellow (0.25 FTE)
2022	PCORI IH-1304-6739, Dissemination and Implementation of Effective Childhood Obesity Treatment Innovations Supplement, Estimating the Cost of Implementation Postdoctoral Fellow (PI: Taveras)
2021 – Pr	NIH T32 CA057711, Harvard Cancer Prevention Program, Harvard TH Chan School of Public Health Postdoctoral Fellow (Co-PIs: Emmons and Frazier)
2018 – 2021	NIH T32 HD091058, Biosocial Training Program, Carolina Population Center Predoctoral Trainee (Co-PIs: Aiello and Hummer)
2020	UNC Department of Sociology Pilot Funds (collaborator role; \$1,000)
2019	UNC Department of Health Policy and Management Travel Grant (\$500)
2017	UNC Department of Health Policy and Management Travel Grant (\$500)
2017	UNC Graduate School Travel Grant (\$500)

Awards and Honors

2020	Harry T. Phillips Award for Outstanding Teaching by a Doctoral Student UNC Department of Health Policy and Management
2020	<i>Finalist</i> , HSRproj Research Competition for Students, AcademyHealth
2017	Delta Omega Public Health Honors Society, Theta chapter
2015	Interdisciplinary Science Outstanding Senior; College of Science Honors Convocation Awardee

Teaching Experience

Spring 2020 & Spring 2021	Graduate Teaching Assistant HPM 883: Categorical Data Analysis Instructor: Marisa Domino
Spring 2021	Co-Instructor HPM 785: Advanced Decision Modeling Instructor: Kristen Hassmiller Lich
Fall 2019	Guest Lecturer – Deterministic and probabilistic sensitivity analyses

	HPM 772: Techniques for the Economic Evaluation of Healthcare Instructor: Leah Frerichs
Summer 2017	Graduate Teaching Assistant HPM 611: Public Health Concepts and Systems Thinking Instructor: Leah Frerichs
2016 – 2017	Biostatistics Peer Tutor UNC Gillings Academic Enrichment Program in Biostatistics
Spring 2016 & Fall 2015	Graduate Teaching Assistant BIOS 600: Introduction to Biostatistics Instructor: Marcus Hermann-Giddens

Extracurricular Training

2020 – 2021	US Policy Communication Training Program Population Reference Bureau (1-week training, yearlong practicum)
2019	Communicating Research Workshop UNC Chapel Hill (two-day workshop)
2018	Stochastic Network Modeling University of Kentucky, LINKS Center for Social Network Analysis (1-week)
2018	Social Networks and Health Duke University, Duke Network Analysis Center (1-week)

Book Chapters

1. Frerichs, L & **Smith, N.R.** (2020). Designing Population Health Research Grounded in Complex Systems Science. in *Complex Systems and Population Health*. Apostolopoulos, Y., Hassmiller Lich, K., & Lemke, M.K. Oxford University Press.

Refereed Conference Presentations

1. **Smith, N.R.**, Mazzucca, S., Hall, M.G., Brownson, R.C., & Frerichs, L. (2020). Opportunities to improve policy dissemination by tailoring communication materials to the research priorities of legislators. *Virtual poster presentation scheduled for the 2020 Dissemination & Implementation Science Annual Meeting, Dec 15-17.*
2. Knocke, K, & **Smith, N.R.** (2020). Where do we start? Methods for pre-implementation planning. *Virtual poster presentation scheduled for the 2020 Dissemination & Implementation Science Annual Meeting, Dec 15-17.*
3. **Smith, N.R.**, Mazzucca, S., Hall, M.G., Ng, S.W., & Frerichs, L. (2020). Identifying groups of policymakers with similar communication preferences to better tailor public health- and nutrition-related research communications. *Virtual poster presented at the 2020 Interdisciplinary Association for Population Health Sciences meeting, Sept 30-Oct 2. Poster award winner.*

4. Martinez, R.A., Andrabi, N., Goodwin, A.N., Wilbur, R.E., **Smith, N.R.**, Zivich, P.N., Aiello, A.E., & Hummer, R.A. (2020). A cross-disciplinary systematic review of race and ethnicity in U.S. population health research. *Virtual oral presentation at the 2020 Interdisciplinary Association for Population Health Sciences meeting, Sept 30 - Oct 2.*
5. Silva, R., Feng, A., **Smith, N.**, Wunder, J., & Evenson, K.R. (2019). Direct and indirect health effects of urban natural environments – latest findings support benefits of urban parks. *Oral presentation at the American Public Health Association annual meeting, Philadelphia, PA.*
6. **Smith, N.R.**, Grummon, A.H., & Frerichs, L. (2019). Populations potentially affected by sugar-sweetened beverage portion size laws. *Oral presentation at the Interdisciplinary Association of Population Health Sciences meeting, Oct 1-4, Seattle, WA.*
7. Martinez, R.A., Andrabi, N., Goodwin, A.N., Wilbur, R.E., **Smith, N.R.**, Zivich, P.N., Aiello, A.E., & Hummer, R.A. A systematic review of the use of race and ethnicity in U.S. medical research. *Poster presented at the Interdisciplinary Association for Population Health Sciences meeting, Oct 1-4, Seattle, WA.*
8. Grummon, A.H., **Smith, N.R.**, Golden, S.D., Frerichs, L., Taillie, L.S., & Brewer, N.T. (2019). Dietary and weight loss benefits of a national sugar-sweetened beverage health warning policy: A microsimulation analysis. *Oral presentation at the American Society for Nutrition Annual Meeting, June 8-11, Baltimore, MD.*
9. **Smith, N.R.**, Frerichs, L., Minyard, K., MacDonald Gibson, J., & Hassmiller Lich, K. (2019). Bridging the research-to-policy gap using simulation modeling: Recommendations for building simulation models to support public health decision making. *Poster presented at the AcademyHealth Annual Research Meeting, June 2-4, Washington, DC*
10. **Smith, N.R.**, Frerichs, L., Minyard, K., MacDonald Gibson, J., & Hassmiller Lich, K. (2019). Bridging the research-to-policy gap using simulation modeling: Recommendations for building simulation models to support public health decision making. *Poster presented at the first annual Biosocial Symposium, May 13, Chapel Hill, NC.*
11. **Smith, N.R.**, Tate, D., Nieberg, R., Espeland, M.A., & Wing, R.R. (2018). A 10-year cost-effectiveness simulation study of a novel approach to weight gain prevention in young adults: the SNAP intervention. *Poster presented at the Interdisciplinary Association for Population Health Science Annual Meeting, Washington, DC.*
12. **Smith, N.R.**, Frerichs, L., Hassmiller Lich, K., Moody, J., Corbie-Smith, G., & Aiello, A.E. (2018). Associations between college students' and their peers' physical activity using peer social network measures. *Poster presented at the Society of Behavioral Medicine Annual Conference, New Orleans, LA.*
14. Schiffenbauer, A., **Smith, N.**, Rider, L.G., & Miller, F.W. (2015). Tobacco Smoking in Different Racial Groups Is Differentially Associated with the Development of Myositis Autoantibodies and Interstitial Lung Disease in the Idiopathic Inflammatory Myopathies. *Arthritis & Rheumatology*, 67, 393-395.

Service

2020 – Present Webinar Activities Co-Chair, Student Committee, Interdisciplinary Association for Population Health Science

2020 – Present	Professional Development Committee, Interdisciplinary Association for Population Health Science
2021	Abstract reviewer, AcademyHealth Annual Meeting (Dissemination, Implementation, and Impact track)
2020	Abstract reviewer, Interdisciplinary Association for Population Health Sciences
2020	Session moderator, UNC master's presentations
2017 – 2020	Advisory Committee, Carolina Community Garden

Professional Memberships

Present	AcademyHealth
Present	Interdisciplinary Association for Population Health Science
Present	Society for Medical Decision Making
Past	Population Association of America
Past	Society of Behavioral Medicine
Past	American Statistical Association

Ad hoc Reviewer

Value in Health; Social Science and Medicine: Population Health; Journals of Gerontology Social Science; Translational Behavioral Medicine

Previous Research Experience

2017 – 2018	Graduate Research Assistant (PI: Leah Frerichs) Department of Health Policy and Management, UNC Chapel Hill
2015 – 2017	Graduate Research Assistant (PI: Dianne Ward) Center for Health Promotion and Disease Prevention, UNC Chapel Hill
2016	Health Improvement Intern Association of State and Territorial Health Officials
2015	Research Assistant North Central Nutrition Education Center for Excellence
2014 – 2015	Research Assistant Purdue Center on Aging and the Life Course
2013	Summer Intern National Institute of Environmental Health Sciences