

1 of 7

- [3] \*Wu TT, Steiger G, **Smith L**, Devlin JW, Slooter AJC. Research letter: Clonidine is associated with faster first resolution of incident ICU delirium than antipsychotics. *Journal of Critical Care*. 2024; 79:154433. doi:[10.1016/j.jcrc.2023.154433](https://doi.org/10.1016/j.jcrc.2023.154433).
- [4] Bu F, Schuemie MJ, Nishimura A, **Smith LH**, Kostka K, Falconer T, McLeggon J-A, Ryan PB, Hripcsak G, Suchard MA. Bayesian safety surveillance with adaptive bias correction. *Statistics in Medicine*. 2024; 43(2):395–418. doi:[10.1002/sim.9968](https://doi.org/10.1002/sim.9968).
- [5] Peterson J, Kahrs JC, Adrien N, Wood ME, Olshan AF, **Smith LH**, Howley MM, Ailes EC, Romitti PA, Herring AH, Parker SE, Shaw GM, Politis MD, The National Birth Defects Prevention Study. Bias analyses to investigate the impact of differential participation: Application to a birth defects case-control study. *Paediatric and Perinatal Epidemiology*. 2023; online ahead of print. doi:[10.1111/ppe.13026](https://doi.org/10.1111/ppe.13026).
- [6] \*Wu TT, **Smith LH**, Vernooij LM, Patel E, Devlin JW. Data missingness reporting and use of methods to address it in critical care cohort studies. *Critical Care Explorations*. 2023; 5(11):e1005. doi:[10.1097/CCE.0000000000001005](https://doi.org/10.1097/CCE.0000000000001005).
- [7] \*Wong CN, Wilczek MP, **Smith LH**, Bosse JD, Richard EL, Cavanaugh R, Manjourides J, Orkaby AR, Olivieri-Mui B. Frailty among sexual and gender minority older adults: The All of Us database. *The Journals of Gerontology: Series A*. 2023; 78(11):2111–2118. doi:[10.1093/gerona/glad149](https://doi.org/10.1093/gerona/glad149).
- [8] Juhel BC, Brunelle CL, Bernstein MC, **Smith LH**, Jung AW, Ababneh HS, Hausman EK, Bucci LK, Bernstein T, Naoum GE, Taghian AG. Side effects of COVID-19 vaccinations in patients treated for breast cancer. *Clinical and Experimental Medicine*. 2023; 27:3671–3680. doi:[10.1007/s10238-023-01050-z](https://doi.org/10.1007/s10238-023-01050-z).
- [9] Stensrud MJ, **Smith L**. Identification of vaccine effects when exposure status is unknown. *Epidemiology*. 2023; 34(2):216–224. doi:[10.1097/ede.0000000000001573](https://doi.org/10.1097/ede.0000000000001573).
- [10] Moura LMVR, Donahue MA, Yan Z, **Smith LH**, Hsu J, Newhouse JP, Schwamm LH, Haneuse S, Hernandez-Diaz S, Blacker D. Comparative effectiveness and safety of seizure prophylaxis among adults after acute ischemic stroke. *Stroke*. 2023; 54(2):527–536. doi:[10.1161/strokeaha.122.039946](https://doi.org/10.1161/strokeaha.122.039946).
- [11] Moura LMVR, Yan Z, Donahue MA, **Smith LH**, Schwamm LH, Hsu J, Newhouse JP, Haneuse S, Blacker D, Hernandez-Diaz S. No short-term mortality from benzodiazepine use post-acute ischemic stroke after accounting for bias. *Journal of Clinical Epidemiology*. 2023; 154:136–145. doi:[10.1016/j.jclinepi.2022.12.013](https://doi.org/10.1016/j.jclinepi.2022.12.013).
- [12] **Smith LH**, García-Albéniz X, Chan JM, Zhao S, Cowan JE, Broering JM, Cooperberg MR, Carroll PR, Hernán MA. Emulation of a target trial with sustained treatment strategies: An application to prostate cancer using both inverse probability weighting and the g-formula. *European Journal of Epidemiology*. 2022; 37(12):1205–1213. doi:[10.1007/s10654-022-00929-7](https://doi.org/10.1007/s10654-022-00929-7).
- [13] **Smith LH**, Dollinger CY, VanderWeele TJ, Wyszynski DF, Hernández-Díaz S. Timing and severity of COVID-19 during pregnancy and risk of preterm birth in the International Registry of Coronavirus Exposure in Pregnancy. *BMC Pregnancy and Childbirth*. 2022; 22(1):775. doi:[10.1186/s12884-022-05101-3](https://doi.org/10.1186/s12884-022-05101-3).
- [14] Hernández-Díaz S, **Smith LH**, Wyszynski DF, Rasmussen SA. First trimester COVID-19 and the risk of major congenital malformations–International Registry of Coronavirus Exposure in Pregnancy. *Birth Defects Research*. 2022; 114(5):906–914. doi:[10.1002/bdr2.2070](https://doi.org/10.1002/bdr2.2070).

- [15] Ramjee D, **Smith LH**, Doanvo A, Charpignon M-L, McNulty-Nebel A, Lett E, Desai AN, Majumder MS. Evaluating criminal justice reform during COVID-19: The need for a novel sentiment analysis package. *PLOS Digital Health*. 2022; 1(7):e0000063. doi:[10.1371/journal.pdig.0000063](https://doi.org/10.1371/journal.pdig.0000063). **Co-first author**.
- [16] Mathur MB, **Smith LH**, Yoshida K, Ding P, VanderWeele TJ. E-values for effect heterogeneity and approximations for causal interaction. *International Journal of Epidemiology*. 2022; 51(4):1268–1275. doi:[10.1093/ije/dyac073](https://doi.org/10.1093/ije/dyac073).
- [17] Westhoff WJ, **Smith LH**, Wyszynski DF, Hernandez-Diaz S. COVID-19 pharmacotherapy utilization patterns during pregnancy: International Registry of Coronavirus Exposure in Pregnancy (IRCEP). *Pharmacoepidemiology and Drug Safety*. 2022; 31(7):804–809. doi:[10.1002/pds.5440](https://doi.org/10.1002/pds.5440).
- [18] Modest AM, **Smith LH**, Toth TL, Collier AY, Hacker MR. Multifoetal gestations mediate the effect of in vitro fertilisation (IVF) on ischaemic placental disease in autologous oocyte IVF more than donor oocyte IVF. *Paediatric and Perinatal Epidemiology*. 2022; 36(2):181–189. doi:[10.1111/ppe.12857](https://doi.org/10.1111/ppe.12857).
- [19] Cohen AK, Ryan S, **Smith LH**, Ream RK, Glymour MM, Lopez A, Yen IH. Educational attainment past the traditional age of completion for two cohorts of US adults: Inequalities by gender and race/ethnicity. *Race and Social Problems*. 2022; 14(3):208–222. doi:[10.1007/s12552-021-09352-1](https://doi.org/10.1007/s12552-021-09352-1).
- [20] Hernández-Díaz S, **Smith LH**, Dollinger C, Schisterman EF, Bellocco R, Wyszynski DF. International Registry of Coronavirus in Pregnancy (IRCEP): Cohort description and methodological considerations. *American Journal of Epidemiology*. 2022; 191(6):967–979. doi:[10.1093/aje/kwac046](https://doi.org/10.1093/aje/kwac046).
- [21] Petito LC, **Smith LH**. Important questions deserve rigorous analysis: A cautionary note about selection bias. *Journal of the American Heart Association*. 2021; 11(6):e023234. doi:[10.1161/jaha.121.023234](https://doi.org/10.1161/jaha.121.023234).
- [22] **Smith LH**, Schwartz GL. Mediating to opportunity: The challenges of translating mediation estimands into policy recommendations. *Epidemiology*. 2021; 32(3):347–350. doi:[10.1097/ede.0000000000001335](https://doi.org/10.1097/ede.0000000000001335).
- [23] **Smith LH**, Mathur MB, VanderWeele TJ. Multiple-bias sensitivity analysis using bounds. *Epidemiology*. 2021; 32(5):625–34. doi:[10.1097/ede.0000000000001380](https://doi.org/10.1097/ede.0000000000001380).
- [24] Farland LV, Correia KF, Dodge LE, Modest AM, Williams PL, **Smith LH**, Toth TL, Hacker MR, Missmer SA. The importance of mediation in reproductive health studies. *Human Reproduction*. 2020; 35(6):1262–1266. doi:[10.1093/humrep/deaa064](https://doi.org/10.1093/humrep/deaa064).
- [25] **Smith LH**, VanderWeele TJ. Simple sensitivity analysis for control selection bias. *Epidemiology*. 2020; 31(5):e44–e45. doi:[10.1097/ede.0000000000001207](https://doi.org/10.1097/ede.0000000000001207).
- [26] **Smith LH**. Selection mechanisms and their consequences: Understanding and addressing selection bias. *Current Epidemiology Reports*. 2020; 7(4):179–189. doi:[10.1007/s40471-020-00241-6](https://doi.org/10.1007/s40471-020-00241-6).
- [27] **Smith LH**, VanderWeele TJ. Bounding bias due to selection. *Epidemiology*. 2019; 30(4):509–516. doi:[10.1097/ede.0000000000001032](https://doi.org/10.1097/ede.0000000000001032).
- [28] **Smith LH**, VanderWeele TJ. Mediational E-values: Approximate sensitivity analysis for unmeasured mediator-outcome confounding. *Epidemiology*. 2019; 30(6):835–837. doi:[10.1097/ede.0000000000001064](https://doi.org/10.1097/ede.0000000000001064).

[29] Cohen AK, Richards T, Allen BL, Ferrier Y, Lees J, **Smith LH**. Health issues in the industrial port zone of Marseille, France: The FOS EPSEAL community-based cross-sectional survey. *Journal of Public Health*. 2017; 26(2):235–243. doi:[10.1007/s10389-017-0857-5](#).

[30] Deardorff J, **Smith LH**, Petito L, Kim H, Abrams BF. Maternal prepregnancy weight and children’s behavioral and emotional outcomes. *American Journal of Preventive Medicine*. 2017; 53(4):432–40. doi:[10.1016/j.amepre.2017.05.013](#).

PRE-PRINTS

[1] Sun S, Lomachinsky V, **Smith LH**, Newhouse JP, Westover MB, Blacker D, Schwamm L, Haneuse S, Moura LMVR. [Benzodiazepine initiation and the risk of falls or fall-related injuries in older adults following acute ischemic stroke](#). 2024.

[2] \*Williams MP, Manjourides J, **Smith L**, Rainer CB, Hightow-Weidman LB, Haley DF. [Digital intervention engagement mediates the relationship between intrapersonal measures and pre-exposure prophylaxis adherence: A secondary analysis of a randomized controlled trial of sexual orientation and gender minority youth on pre-exposure prophylaxis](#). 2024.

\* indicates mentee first author

AWARDS

Harvard Biostatistics Certificate of Distinction in Teaching	2020
Harvard Epidemiology Teaching Assistant Award	2020
Winner, Harvard Epidemiology Student Podcast Competition	2020
Bok Center Certificate of Distinction in Teaching (×3)	2017, 2018, 2019
Runner-up, Harvard T.H. Chan School Poster Day	2019
Ralph & June Catalano Award Scholarship	2015
Reshetko Scholarship	2014
U.C. Berkeley Graduate Division Block Grant	2014
Phi Beta Kappa	2011
Magna cum laude; Brown University departmental honors	2011
C.V. Starr Fellowship for Public Service	2008

FUNDING

Co-Investigator on subaward (PI: Simmonds)  
Prime sponsor HRSA (PI: Mills; MaineHealth)  
*Rural Maternity and Obstetrics Management Strategies (RMOMS): Workforce Needs Assessment of Rural Labor and Delivery Units in Maine*  
September 2023 – December 2023; \$73,434

INVITED TALKS

“Second-guessing selection bias.” Society for Epidemiologic Research (SER). June 20, 2024. (Austin, TX)

“Introduction to causal inference.” MaineHealth Institute for Research. June 26 & July 17, 2023. (Portland, ME)

“Closing remarks.” Annual Symposium on Risks and Opportunities of AI in Pharmaceutical Medicine (AIPM). June 5, 2023. (Portland, ME)

“Intro to {targets}.” Maine R User Group. May 31, 2023. (Portland, ME)

“Challenges in estimating effects of time-varying exposures during pregnancy.” Advanced Methods Workshop, Society for Pediatric and Perinatal Epidemiologic Research (SPER). June 16, 2022. (Chicago, IL)

“Causal inference in epidemiology using target trial principles: Applications in pregnancy

and prostate cancer.” Statistics seminar, École Polytechnique Fédérale de Lausanne. September 17, 2021. (Lausanne, Switzerland)

“Multiple-bias sensitivity analysis using bounds.” Joint Statistical Meetings (JSM). August 9, 2021. (Virtual)

“Simple sensitivity analysis for selection bias using bounds.” 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics). December 19, 2020. (Virtual)

“Discussion of ‘Selection bias in 2020.’” Online Causal Inference Seminar. December 8, 2020. (Virtual)

“The magic of R.” Master of Food and Resource Economics Program, University of British Columbia. August 20, 2020. (Virtual)

“Data gets personal.” Maine Medical Center R User Group. July 16, 2020. (Virtual)

“Data manipulation in R.” Maine Medical Center R Group. July 14, 2020. (Virtual)

“Data gets personal.” RLadies Boston, January 29, 2020. (Boston, MA)

“Simple sensitivity analysis for selection bias.” Koenen trauma epidemiology research group, Harvard T.H. Chan School of Public Health. December 4, 2019. (Boston, MA)

“Simple sensitivity analysis for selection bias.” Department of Medical Epidemiology and Biostatistics student seminar, Karolinska Institute. November 12, 2019. (Stockholm, Sweden)

“Simple sensitivity analysis for selection bias.” Monthly methods call, Vaccine Safety Datalink. September 12, 2019. (Virtual)

CONTRIBUTED  
PRESENTATIONS  
& WORKSHOPS

“Evaluating missingness assumptions for items in a frailty index.” Society for Epidemiologic Research (SER). June 14, 2023 (Portland, OR). *Oral Abstract Session*.

“Reproducible epidemiology in R.” Society for Epidemiologic Research (SER). June 13, 2023 (Portland, OR). *Pre-Conference Workshop*.

“COVID-19 and preterm birth: Understanding the relationship.” Society for Pediatric and Perinatal Epidemiologic Research (SPER). June 16, 2021 (Virtual). *Speed Talk Session*.

“Challenges in estimating effects of COVID-19 on preterm birth.” Society for Epidemiologic Research (SER). June 23, 2021 (Virtual). *Oral Abstract Session*.

“E-values, unmeasured confounding, measurement error, and selection bias.” Society for Epidemiologic Research (SER). June 18, 2019 (Minneapolis, MN); December 11, 2020 (Virtual); May 21, 2021 (Virtual). *Pre-Conference Workshop, with Tyler VanderWeele / Maya Mathur*.

“Simple sensitivity analysis for selection bias. Society for Epidemiologic Research (SER).” June 20, 2019 (Minneapolis, MN). *Concurrent Contributed Session Oral Presentation*.

POSTERS  
(FIRST OR  
SENIOR AUTHOR  
ONLY)

Bennett CR, Cavanaugh R, **Smith LH**. Using a target trial to estimate the causal effect of health technology on racial disparities. Society for Epidemiologic Research (SER). Austin, TX, June 2024.

Bennett CR, Cavanaugh R, **Smith LH**. Social and structural determinants of diabetes technology use: A descriptive analysis. Society for Epidemiologic Research (SER). Austin, TX, June 2024.

Gorsky KG, Keefe-Oates B, Lakshmanan A, Rogers EE, **Smith LH**. Leave practices and association with breastfeeding and postpartum depression among mothers of infants with prolonged postnatal hospitalization. Pediatric Academic Societies Meeting (PAS). Toronto, Canada, May 2024.

Gorsky KG, Keefe-Oates B, Lakshmanan A, Rogers EE, **Smith LH**. Leave practices and postpartum return-to-work plans among mothers of infants with prolonged postnatal hospitalization. Pediatric Academic Societies Meeting (PAS). Toronto, Canada, May 2024.

**Smith LH**, Bu F, Nishimura A, Kostka K, McLeggon J, Ryan PB, Hripcsak G, Madigan D, Suchard MA. Bayesian evidence synthesis with bias correction. Observational Health Data Sciences and Informatics (OHDSI) Global Symposium. East Brunswick, NJ, October 20, 2023. *Finalist: Best Community Contribution*.

**Smith LH**, Zaidi J. Identifying direct effects of in vitro fertilization on placental disease. Harvard T.H. Chan School of Public Health Poster Day. Boston, MA, April 25, 2019. *Runner-up: Best graduate student poster*.

**Smith LH**, Deardorff J, Petito L, Kim H, & Abrams BF. Maternal prepregnancy weight and children's behavioral and emotional outcomes. Society For Research in Child Development (SCRD). Austin, TX, April 8, 2017.

**Smith LH**, Petito L, Cohen A, Deardorff J, & Abrams B. Gestational weight gain and math and reading achievement among U.S. children. Society for Pediatric and Perinatal Epidemiologic Research (SPER). Miami, FL, June 20, 2016.

#### SOFTWARE & ONLINE TOOLS

Cavanaugh R, **Smith LH**. *alloyfus*: R package to streamline use of the All of Us Researcher Workbench. *R Package on CRAN*.

**Smith LH**. Simple sensitivity analysis for selection bias. *Online tool available at [selection-bias.louisahsmith.com](https://selection-bias.louisahsmith.com)*.

Mathur MB, **Smith LH**, Ding P, VanderWeele TJ. *EValue*: Sensitivity analyses for unmeasured confounding or selection bias in observational studies and meta-analyses. *R Package on CRAN*.

**Smith LH**. PHS Summer Prep. *Online introduction to R, probability, and statistics for incoming PhD students available at [bit.ly/phs-prep](https://bit.ly/phs-prep)*.

#### TEACHING: PRIMARY INSTRUCTOR

**Northeastern University**, Boston, MA

**PHTH 6800: Causal Inference in Public Health Research** Spring 2023, 2024  
3 Credits

**Emory University Rollins School of Public Health**, Atlanta, GA

**EPI590R: R Bootcamp** Summer 2023  
1 Credit

**Harvard T. H. Chan School of Public Health**, Boston, MA

**ID 543: Introduction to R** Summer 2023, 2024  
1.25 Credits

#### TEACHING: STUDENT INSTRUCTOR

**Harvard T. H. Chan School of Public Health**, Boston, MA

**EPI 207: Advanced Epidemiologic Methods** 2018 – 2020

	Head teaching fellow <i>Instructor:</i> James Robins	
	<b>BST 256: Theory and Methods for Causality I</b> Teaching fellow <i>Instructor:</i> Andrea Rotnitzky	2020
	<b>Introduction to R</b> Instructor and course developer	2019 – 2020
	<b>Introduction to Epidemiology</b> Co-instructor <i>Co-instructor:</i> David Cote	2019 – 2020
	<b>PHS 2000: Quantitative Research Methods</b> Teaching fellow <i>Instructors:</i> Tyler VanderWeele, Jarvis Chen, Michael Hughes, Jessica Cohen	2017 – 2019
	<b>University of California, Berkeley, Berkeley, CA</b>	
	<b>PH 150A: Introduction to Epidemiology and Human Disease</b> Graduate student instructor <i>Instructor:</i> Lisa Barcellos and Mahasin Mujahid	2016
	<b>PH 250A: Epidemiologic Methods</b> Graduate student instructor <i>Instructor:</i> Sandra McCoy	2015
	<b>Guest lectures</b>	
	PHS 2000B: Quantitative Research Methods, Harvard T.H. Chan School of Public Health.	
	SBS 245: Social and Behavioral Research Methods, Harvard T.H. Chan School of Public Health.	
	MPH 677: Regression Models in the Health Sciences, University of Southern Maine.	
	PHTH 5202: Epidemiology, Northeastern University.	
OTHER	Member, Society for Epidemiologic Research (SER) Member, Society for Pediatric and Perinatal Epidemiologic Research (SPER) Planning Committee, Annual Symposium on Risks and Opportunities of AI in Pharmaceutical Medicine (AIPM) Ad-hoc reviewer: <i>American Journal of Epidemiology, Biometrika, BMJ Open, Epidemiologic Methods, Epidemiologic Reviews, Epidemiology, International Journal of Epidemiology, JAMA Network Open, JAMA Psychiatry, Journal of Causal Inference, Journal of Epidemiology, Patient Preference and Adherence, Paediatric and Perinatal Epidemiology, Scientific Reports, Sociological Methods and Research</i>	
OTHER PROFESSIONAL EXPERIENCE	<b>Little Wound School, Kyle, SD</b> Elementary school teacher 3rd grade teacher of 10-20 students Taught reading, writing, math, science, social studies	2011 – 2014