

CONTACT INFORMATION	<a href="mailto:l.smith@northeastern.edu">l.smith@northeastern.edu</a> <a href="http://www.louisahsmith.com">www.louisahsmith.com</a> Google Scholar   ORCID (207) 653 - 4318 (cell)	Roux Institute of Northeastern University Observational Health Data Sciences and Informatics Center 100 Fore St Portland, ME 04101
POST-PHD EMPLOYMENT	<b>Roux Institute of Northeastern University</b> , Portland, ME <i>Observational Health Data Sciences and Informatics Center</i> Postdoctoral Fellow <b>École Polytechnique Fédérale de Lausanne</b> , Switzerland <i>Department of Mathematics, Biostatistics Group</i> Visiting Scholar, hosted by Mats Stensrud	October 2021 – present  August – September 2021
EDUCATION	<b>Harvard T.H. Chan School of Public Health</b> , Boston, MA PhD, Population Health Sciences <i>Concentration:</i> Epidemiologic methods <i>Thesis:</i> Bias bounds and target trials for causal inference in observational epidemiology <i>Committee:</i> Miguel Hernán, Tyler VanderWeele, Sonia Hernández-Díaz MS, Biostatistics <b>University of California, Berkeley</b> , Berkeley, CA MS, Epidemiology <b>Brown University</b> , Providence, RI BA, Comparative Literature and Community Health	2021    2021  2016  2011
PUBLICATIONS	<p>[10] Hernández-Díaz S, <b>Smith LH</b>, Dollinger C, Schisterman E, Belloc R, Wyszynski DF. International Registry of Coronavirus Exposure in Pregnancy (IRCEP) — Cohort description and methodological considerations. <i>American Journal of Epidemiology</i>. In press.</p> <p>[9] <b>Smith LH</b>, Mathur MB, VanderWeele TJ. Multiple-bias sensitivity analysis using bounds. <i>Epidemiology</i>. 2021;32(5):625-34. doi:10.1097/ede.0000000000001380.</p> <p>[8] <b>Smith LH</b>, Schwartz GL. Mediating to opportunity: The challenges of translating mediation estimands into policy recommendations (commentary). <i>Epidemiology</i>. 2021;32(3):347-50. doi:10.1097/ede.0000000000001335.</p> <p>[7] <b>Smith LH</b>. Selection mechanisms and their consequences: Understanding and addressing selection bias. <i>Current Epidemiology Reports</i>. 2020;7(4):179–89. doi:10.1007/s40471-020-00241-6.</p> <p>[6] Farland LV, Correia KFB, Dodge LE, Modest AM, Williams PL, <b>Smith LH</b>, Toth TL, Hacker MR, Missmer SA. The importance of mediation in reproductive health studies. <i>Human Reproduction</i>. 2020;36(6):1262–6. doi:10.1093/humrep/deaa064.</p>	

- [5] **Smith LH**, VanderWeele TJ. Simple sensitivity analysis for control selection bias (research letter). *Epidemiology*. 2020;31(5):e44-e45. doi:[10.1097/ede.0000000000001207](https://doi.org/10.1097/ede.0000000000001207).
- [4] **Smith LH**, VanderWeele TJ. Meditational E-values: Approximate sensitivity analysis for unmeasured mediator-outcome confounding. *Epidemiology*. 2019;30(6):835–7. doi:[10.1097/ede.0000000000001064](https://doi.org/10.1097/ede.0000000000001064).
- [3] **Smith LH**, VanderWeele TJ. Bounding bias due to selection. *Epidemiology*. 2019;30(4):509–16. doi:[10.1097/ede.0000000000001032](https://doi.org/10.1097/ede.0000000000001032).
- [2] 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](https://doi.org/10.1016/j.amepre.2017.05.013).
- [1] 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):235–43. doi:[10.1007/s10389-017-0857-5](https://doi.org/10.1007/s10389-017-0857-5).

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

MANUSCRIPTS UNDER REVIEW OR IN REVISION **Smith LH**, Dollinger C, VanderWeele TJ, Wyszynski DF, Hernández-Díaz S. Timing and severity of COVID-19 during pregnancy and the risk of preterm birth in the International Registry of Coronavirus Exposure in Pregnancy.

Mathur MB, **Smith LH**, Yoshida K, Ding P, VanderWeele TJ. E-values for effect modification and conservative approximations for causal interaction. *Pre-print available*.

Modest AM, **Smith LH**, Toth TL, Collier AY, Hacker MR. Multifetal gestations mediate the effect of in vitro fertilization (IVF) on ischemic placental disease in autologous oocyte IVF more than donor oocyte IVF. *Abstract available*.

Ramjee D, **Smith LH**, Doanvo A, McNulty A, Charpignon ML, Lett E, Desai AN, Majumder MS. Evaluating criminal justice reform during COVID-19: The need for a novel sentiment analysis package. *Pre-print available*.

INVITED TALKS “Causal inference in epidemiology using target trial principles: Applications in pregnancy and prostate cancer.” Statistics seminar, École Polytechnique Fédérale de Lausanne. September 17, 2021.

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

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

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

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

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

“Data manipulation in R.” Maine Medical Center R User Group. July 14, 2020.

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

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

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

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

# CONTRIBUTED PRESENTATIONS & WORKSHOPS

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

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

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

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

# POSTERS (FIRST AUTHOR)

[1] **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*.

[2] **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.

[3] **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	<div><div>[1] <b>Smith LH.</b> Simple sensitivity analysis for selection bias. <i>Online tool available at <a href="http://selection-bias.louisahsmith.com">http://selection-bias.louisahsmith.com</a>.</i></div><div>[2] Mathur MB, <b>Smith LH</b>, Ding P, VanderWeele TJ. EValue: Sensitivity analyses for unmeasured confounding or selection bias in observational studies and meta-analyses. <i>R Package on CRAN</i>.</div><div>[3] <b>Smith LH.</b> PHS Summer Prep. <i>Online introduction to R, probability, and statistics for incoming PhD students available at <a href="http://bit.ly/phs-prep">bit.ly/phs-prep</a>.</i></div></div>
TEACHING EXPERIENCE	<div><div><b>Harvard T. H. Chan School of Public Health</b>, Boston, MA</div><div><div><div><b>EPI 207: Advanced Epidemiologic Methods</b></div><div>2018 – 2020</div><div>Head teaching fellow</div><div><i>Instructor:</i> James Robins</div></div><div><div><b>BST 256: Theory and Methods for Causality I</b></div><div>2020</div><div>Teaching fellow</div><div><i>Instructor:</i> Andrea Rotnitzky</div></div><div><div><b>Introduction to R</b></div><div>2019 – 2020</div><div>Instructor and course developer</div><div></div></div><div><div><b>Introduction to Epidemiology</b></div><div>2019 – 2020</div><div>Co-instructor</div><div><i>Co-instructor:</i> David Cote</div></div><div><div><b>PHS 2000: Quantitative Research Methods</b></div><div>2017 – 2019</div><div>Teaching fellow</div><div><i>Instructors:</i> Tyler VanderWeele, Jarvis Chen, Michael Hughes, Jessica Cohen</div></div></div></div> <div><div><b>University of California, Berkeley</b>, Berkeley, CA</div><div><div><div><b>PH 150A: Introduction to Epidemiology and Human Disease</b></div><div>2016</div><div>Graduate student instructor</div><div><i>Instructors:</i> Lisa Barcellos and Mahasin Mujahid</div></div><div><div><b>PH 250A: Epidemiologic Methods</b></div><div>2015</div><div>Graduate student instructor</div><div><i>Instructor:</i> Sandra McCoy</div></div></div></div> <div><div><b>Guest lectures</b></div><div><div>SBS 245: Social and Behavioral Research Methods, Harvard T.H. Chan School of Public Health.</div><div>MPH 677: Regression Models in the Health Sciences, University of Southern Maine.</div><div>PHTH 5202: Epidemiology, Northeastern University.</div></div></div>
OTHER	<div><div>Ad-hoc reviewer: <i>American Journal of Epidemiology, Biometrika, Epidemiologic Reviews, Epidemiology, International Journal of Epidemiology, Journal of Causal Inference, Journal of Epidemiology, Paediatric and Perinatal Epidemiology</i></div><div>Member, Society for Epidemiologic Research (SER), SER Education Committee</div><div>Member, Society for Perinatal Epidemiologic Research (SPER)</div><div>Member, American Statistical Society (ASA)</div></div>

OTHER	<b>Little Wound School</b> , Kyle, SD	
PROFESSIONAL	Elementary school teacher	2011 – 2014
EXPERIENCE	<ul style="list-style-type: none"><li>• 3rd grade teacher of 10-20 students</li><li>• Taught reading, writing, math, science, social studies</li><li>• Lesson planning, curriculum mapping, analysis of student progress</li></ul>	