

Chanelle J. Howe

Associate Professor
Department of Epidemiology
Brown University School of Public Health
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Education

Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC

Postdoctoral Research Associate 2009 to 2011
Mentor: Stephen R. Cole, PhD MPH

Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Doctor of Philosophy, Epidemiology 2004 to 2009
Master of Health Science, Biostatistics
Thesis: Informative censoring in cohort studies: sources, methods, and challenges
Advisor: Alvaro Muñoz, PhD

Mailman School of Public Health, Columbia University, New York, NY

Master of Public Health, Epidemiology 2002 to 2004
Thesis: Risk correlates for HCV infection among non-injecting drug users in New York City
Advisor: Crystal M. Fuller, PhD MPH

Massachusetts Institute of Technology (MIT), Cambridge, MA

Bachelor of Science, Chemical Engineering 1998 to 2002

Professional Appointments

Department of Epidemiology, School of Public Health, Brown University, Providence, RI

Associate Professor of Epidemiology with Tenure July 2019 to Present
RGSS Assistant Professor of Public Health (Endowed Professorship) July 2018 to June 2019
Assistant Professor of Epidemiology September 2011 to June 2019

Department of Epidemiology, School of Public Health, Boston University, Boston, MA

Visiting Scholar January 2021 to August 2021

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

Visiting Assistant Professor January 2017 to June 2017

Affiliations

- Society for Epidemiologic Research, 2008 to Present
- Center for Epidemiologic Research at Brown University, 2011 to Present
- Providence/Boston Center for AIDS Research (CFAR), 2011 to Present
- Population Studies and Training Center at Brown University, 2023 to Present

Publications

Peer-reviewed Journal Articles (Published or In Press)

1. Scarpaci MM, Park J, Dionne L, Needham BL, Sims M, Kanaya AM, Kandula NR, Fava, JL, Eaton CB, Howe CJ, Dulin AJ. A data harmonization project of three large prospective cardiovascular health-focused cohorts. *American Journal of Epidemiology*. In Press.
2. Lu H, Howe CJ, Zivich PN, Gonsalves GS, Westreich DJ. The evolution of selection bias in the recent epidemiologic literature-A selective overview. [Invited Commentary] *American Journal of Epidemiology*. In Press.
3. Park J (mentee and co-first author), Wilson-Barthes M (co-first author), Dulin AJ, Hogan JW, Mugavero MJ, Napravnik S, Carey MP, Fava JL, Earnshaw VA, Dale SK, Johnson B, Dougherty-Sheff S, Agil D, Howe CJ. Multilevel resilience and HIV virologic suppression among African American/Black adults in the southeastern U.S. *J Racial Ethn Health Disparities*. 2024 Feb;11(1):313-325. doi: 10.1007/s40615-023-01520-w. Epub 2023 Apr 12.
4. Park J (mentee), Dulin AJ, Scarpaci MM, Dionne LA, Needham BL, Sims M, Kanaya AM, Kandula NR, Loucks EB, Fava JL, Eaton CB, Howe CJ. Examining the relationship between multilevel resilience resources and cardiovascular disease incidence overall and by psychosocial risks among participants in JHS, MESA, and MASALA. *Am J Epidemiol*. 2023 Nov 3;192(11):1864-1881. doi: 10.1093/aje/kwad159.
5. Kahler CW, Janssen T, Gruber S, Howe CJ, Laws MB, Walthers J, Magill M, Mastroleo NR, Monti PM. Change talk subtypes as predictors of alcohol use following brief motivational intervention. *Psychol Addict Behav*. 2023 Nov;37(7):875-885. doi: 10.1037/adb0000898. Epub 2022 Nov 28.
6. Gantenberg JR*, McConeghy KW, Howe CJ, Steingrimsson J, van Aalst R, Chit A, Zullo AR. Predicting seasonal influenza hospitalization using an ensemble super learner: a simulation study. *Am J Epidemiol*. 2023 Oct 10;192(10):1688-1700. doi: 10.1093/aje/kwad113. PMID: 37147861.
7. Silva JBB*, Howe CJ, Jackson JW, Bardenheier BH, Riester M, van Aalst R, Loiacono MM, and Zullo AR. Geospatial Distribution of Racial Disparities in Influenza Vaccine Use in Nursing Homes. *J Am Med Dir Assoc*. 2023 Sep 19:S1525-8610(23)00742-9. doi: 10.1016/j.jamda.2023.08.018. Online ahead of print. PMID: 37739348.

8. Silva JBB*, Howe CJ, Jackson JW, Riester M, Bardenheier BH, Xu L, Puckrein G, van Aalst R, Loiacono MM, and Zullo AR. Geographic Variation in Racial Disparities in Receipt of High-Dose Influenza Vaccine among US Older Adults. *Journal of Racial and Ethnic Health Disparities*. 2023 May 15. doi: 10.1007/s40615-023-01628-z. Online ahead of print.
9. Robison K, Wohlrab K, Howe CJ, Richter HE, Sung V, Bevis KS, Luis C, McCourt C, Lowder J, Occhino J, Glaser G, Lokich L, Dunivan G, Brown A, Tunistky E, Wethington S, Chen G, Rahn D, Carlson M, Cram C, Raker C, Clark M. Endometrial cancer surgery with or without concomitant stress urinary incontinence surgery. *Obstet Gynecol*. 2023 Apr 1;141(4):642-652. doi: 10.1097/AOG.0000000000005059. Epub 2023 Mar 9. PMID: 36897162.
10. Nassel A (co-first author), Wilson-Barthes M (co-first author), Howe CJ, Napravnik S, Mugavero MJ, Agil D, Dulin AJ. Characterizing the Neighborhood Risk Environment in Multisite Clinic-Based Cohort Studies: A Practical Geocoding and Data Linkages Protocol for Protected Health Information. *PLoS One*. 2022 Dec 29;17(12):e0278672. doi: 10.1371/journal.pone.0278672. eCollection 2022.
11. Park J (mentee), Howe CJ, Dionne L, Scarpaci MM, Needham BL, Sims M, Kanaya AM, Kandula NR, Fava JL, Loucks EB, Eaton CB, Dulin AJ. Social support, psychosocial risks, and cardiovascular health: Using harmonized data from the Jackson Heart Study, Mediators of Atherosclerosis in South Asians Living in America Study, and Multi-Ethnic Study of Atherosclerosis. *SSM Popul Health*. 2022 Dec;20:101284. doi: 10.1016/j.ssmph.2022.101284. eCollection 2022 Dec.
12. Riester MR, Roberts AI, Silva JBB, Howe CJ, Bardenheier BH, van Aalst R, Loiacono MM, and Zullo AR. Geographic Variation in Influenza Vaccination Disparities Between Hispanic and Non-Hispanic White U.S. Nursing Home Residents. *Open Forum Infect Dis*. 2022 Nov 24;9(12):ofac634. doi: 10.1093/ofid/ofac634. eCollection 2022 Dec.
13. Howe CJ, Bailey ZD, Raifman JR, Jackson JW. Recommendations for using causal diagrams to study racial health disparities. [Commentary] *Am J Epidemiol*. 2022 Nov 19;191(12):1981-1989. doi: 10.1093/aje/kwac140.
14. Dulin AJ, Park J, Scarpaci MM, Dionne LA, Sims M, Needham BL, Fava JL, Eaton CB, Kanaya AM, Kandula NR, Loucks EB, Howe CJ. Examining relationships between perceived neighborhood social cohesion and ideal cardiovascular health and whether psychosocial stressors modify observed relationships among JHS, MESA, and MASALA participants? *BMC Public Health*. 2022 Oct 11;22(1):1890. doi: 10.1186/s12889-022-14270-x.
15. Lu H*, Cole SR, Howe CJ, Westreich DJ. Toward a clearer definition of selection bias when estimating causal effects. *Epidemiology*. 2022 Sept 1;33(5):699-706. doi: 10.1097/EDE.0000000000001516. Epub 2022 Jun 6.
16. Dulin AJ, Fava JL, Earnshaw VA, Dale SK, Carey MP, Wilson-Barthes M, Mugavero MJ, Dougherty-Sheff S, Johnson B, Napravnik S, Agil D, Howe CJ. Development of long and

short forms of the multilevel resilience resource measure for African-American/Black people living with HIV. *AIDS Behav.* 2022 Jul;26(7):2469-2484. doi: 10.1007/s10461-022-03579-8. Epub 2022 Jan 29. PMID: 35092536.

17. Fox MP, Nianogo R, Rudolph JE, Howe CJ. Illustrating how to simulate data from directed acyclic graphs to understand epidemiologic concepts. *Am J Epidemiol.* 2022 Jun 27;191(7):1300-1306. doi: 10.1093/aje/kwac041.
18. Park J (mentee), Mealy R, Saldanha IJ, Loucks EB, Needham BL, Sims M, Fava JL, Dulin AJ, Howe CJ. Multilevel resilience resources and cardiovascular disease: a systematic review and meta-analysis. *Health Psychol.* 2022 Apr; 41(4):278-290. doi: 10.1037/hea0001069. Epub 2021 Jun 17.
19. Choy CC* (mentee), Howe CJ, Soti-Ulberg C, Naseri T, Reupena MS, Duckham RL, and Hawley NL. Is overweight or obesity associated with anemia in children? Follow-up of Samoans in the *Ola Tuputupua'e* "Growing Up" study. *Obes Res Clin Pract.* Mar-Apr 2022;16(2):144-150. doi: 10.1016/j.orcp.2022.02.008. Epub 2022 Mar 4.
20. Sears CG, Eliot M, Raaschou-Nielsen O, Poulsen AH, Harrington J, Howe CJ, James KA, Roswall N, Overvad K, Tjønneland A, Meliker J, Wellenius GA. Urinary cadmium and incident heart failure: a case-cohort analysis among never-smokers in Denmark. *Epidemiology.* 2022 March 1; 33(2):185-192. doi: 10.1097/EDE.0000000000001446.
21. Park J (mentee), Dulin AJ, Needham BL, Sims M, Loucks EB, Fava JL, Dionne L, Scarpaci MM, Eaton CB, Howe CJ. Examining optimism, psychosocial risks, and cardiovascular health using Life's Simple 7 metrics in the Multi-Ethnic Study of Atherosclerosis and the Jackson Heart Study. *Front. Cardiovasc. Med.*, 15 December 2021. <https://doi.org/10.3389/fcvm.2021.788194>.
22. Ozdemir S, Sears CG, Harrington JM, Poulsen AH, Buckley J, Howe CJ, James KA, Tjønneland, A, Wellenius GA, Raaschou-Nielsen O, Meliker J. Relationship between urine creatinine and urine osmolality in spot samples among men and women in the Danish Diet Cancer and Health Cohort. *Toxics.* 2021 Nov 1, 9(11), 282. <https://doi.org/10.3390/toxics9110282>.
23. Poulsen AH, Sears CG, Harrington J, Howe CJ, James KA, Roswall N, Overvad K, Tjønneland A, Wellenius GA, Meliker J, Raaschou-Nielsen O. Urinary cadmium and stroke - a case-cohort study in Danish non-smokers. *Environ Res.* 2021 Sep;200:111394. doi: 10.1016/j.envres.2021.111394. Epub 2021 May 29. PMID: 34062200
24. Yang B, Huang AT, Garcia-Carreras B, Hart WE, Staid A, Hitchings MDT, Lee EC, Howe CJ, Grantz K, Wesolowski A, Lemaitre JC, Rattigan S, Moreno C, Borgert B, Dale C, Quigley N, Cummings A, McLorg A, Lomonaco K, Schlossberg S, Barron-Kraus D, Shrock H, UFCOVID Interventions Team, Lessler J, Laird CD, Cummings DAT. Effect of specific non-pharmaceutical intervention policies on SARS-CoV-2 transmission in the counties of the United States. *Nat Commun.* 2021 Jun 11;12(1):3560. doi: 10.1038/s41467-021-23865-8.

25. Sears CG, Poulsen AH, Eliot M, Howe CJ, James KA, Harrington J, Roswall N, Overvad K, Tjønneland A, Raaschou-Nielsen O, Wellenius GA, Meliker J. Urinary cadmium and risk of acute myocardial infarction among never smokers in the Danish Diet Cancer and Health Cohort. *Environ Int.* 2021 May;150:106428. doi: 10.1016/j.envint.2021.106428. Epub 2021 Feb 8.
26. Dulin AJ, Earnshaw VA, Dale SK, Carey MP, Fava JL, Wilson-Barthes M, Mugavero MJ, Dougherty-Sheff S, Johnson B, Napravnik S, Howe CJ. A concept mapping study to understand multilevel resilience resources among African-American/Black adults living with HIV in the southern United States. *AIDS and Behavior.* 2021 Mar;25(3):773-786. doi: 10.1007/s10461-020-03042-6. Epub 2020 Sep 17.
27. Cressman AE* (mentee), Howe CJ, Nunn AS, Adimora AA, Williams DR, Kempf M, Chandran A, Wentz EL, Blackstock OJ, Kassaye SG, Cohen J, Cohen MH, Wingood GM, Metsch LR, Wilson TE. The relationship between discrimination and missed scheduled HIV care appointments among women living with HIV. *AIDS and Behavior.* 2020 Jan;24(1):151-164. doi: 10.1007/s10461-019-02522-8.
28. Trudel-Fitzgerald C, Millstein R, von Hippel C, Howe CJ, Tomasso LP, Wagner GR, VanderWeele TJ. Psychological well-being as part of the public health debate? Insight into dimensions, interventions, and policy. *BMC Public Health.* 2019 Dec 19;19(1):1712. doi: 10.1186/s12889-019-8029-x.
29. Zullo AR (co-first author), Adams JW* (co-first author, mentee), Gantenberg JR, Marshall BDL, Howe CJ. Examining neighborhood poverty-based disparities in HIV/STI prevalence: an analysis of ADD Health data. *Annals of Epidemiology.* 2019 Nov;39:8-14.e4. doi: 10.1016/j.annepidem.2019.09.010. Epub 2019 Oct 9.
30. Janssen T, Magill M, Mastroleo NR, Laws MB, Howe CJ, Walthers JW, Monti PM, Kahler CW. The role of therapist MI skill and client change talk class membership on dual alcohol and sex risk outcomes. *J Clin Psychol.* 2019 Sep;75(9):1527-1543. doi: 10.1002/jclp.22798. Epub 2019 Apr 29.
31. Dulin AJ (co-first author), Dale SK (co-first author), Earnshaw VA, Fava JL, Mugavero MJ, Napravnik S, Hogan JW, Carey MP, Howe CJ. Resilience and HIV: a review of the definition and study of resilience. *AIDS Care.* 2018 Aug;30(sup5):S6-S17. doi: 10.1080/09540121.2018.1515470. Epub 2019 Jan 11.
32. Laws MB, Magill M, Mastroleo N, Gamarel K, Howe CJ, Walthers J, Monti PM, Souza T, Wilson IB, Rose GS, Kahler C. A sequential analysis of motivational interviewing technical skills and client responses. *Journal of Substance Abuse Treatment.* 2018 Sept; 29: 27-34. doi: <https://doi.org/10.1016/j.jsat.2018.06.006>. Erratum in: *Journal of Substance Abuse Treatment.* 2019 Mar; 98: 26-27.

33. Howe CJ, Robinson WR. Survival-related selection bias in studies of racial health disparities: the importance of the target population and study design. [Brief Report] *Epidemiology*. 2018 Jul;29(4):521-524. doi: 10.1097/EDE.0000000000000849.
34. Rebeiro PF (mentee), Howe CJ, Rogers WB, Bebawy SS, Turner M, Kheshti A, McGowan CC, Raffanti SS, Sterling TR. The relationship between adverse neighborhood socioeconomic context and HIV continuum of care outcomes in a diverse HIV clinic cohort in the Southern United States. *AIDS Care*. 2018 Apr 20:1-9. doi: 10.1080/09540121.2018.1465526. [Epub ahead of print].
35. Dulin A, Risica PM, Mello J, Ahmed R, Carey KB, Cardel M, Howe CJ, Nadimpalli S, Gans K. Examining neighborhood and interpersonal norms and social support on fruit and vegetable intake in low-income communities. *BMC Public Health*. 2018 Apr 5;18(1):455. doi: 10.1186/s12889-018-5356-2.
36. Howe CJ, Dulin-Keita A, Cole SR, Hogan JW, Lau B, Moore RD, Mathews WC, Crain HM, Drozd DR, Geng E, Boswell SL, Napravnik S, Eron JJ, Mugavero MJ for the CFAR Network of Integrated Clinical Systems (CNICS). Evaluating the population impact on racial/ethnic disparities in HIV in adulthood of intervening on specific targets: a conceptual and methodological framework. *Am J Epidemiol*. 2018 Feb 1;187(2):316-325. doi: 10.1093/aje/kwx247.
37. Adams JW* (mentee), Howe CJ, Andrews A, Allen S, Vinnard C. Tuberculosis screening among HIV-infected patients: tuberculin skin test vs. interferon-gamma release assay. *AIDS Care*. 2017 Dec;29(12):1504-1509. doi: 10.1080/09540121.2017.1325438. Epub 2017 May 9.
38. Howe CJ, Siegel H, Dulin-Keita A. Neighborhood environments and sexual risk behaviors for HIV infection among U.S. women: a systematic review. *AIDS Behav*. 2017 Dec;21(12):3353-3365. doi: 10.1007/s10461-017-1771-0.
39. Liu Q*, Lichtenstein AH, Matthan NR, Howe CJ, Allison MA, Howard BV, Martin LW, Valdiviezo C, Manson JE, Liu S, Eaton CB. Higher lipophilic index indicates higher risk of coronary heart disease in postmenopausal women. *Lipids*. 2017 Aug;52(8):687-702. doi: 10.1007/s11745-017-4276-8. Epub 2017 Jul 8.
40. Zullo AR* (mentee), Howe CJ, Galárraga O. Estimating the effect of health insurance on personal prescription drug importation. *Med Care Res Rev*. 2017 Apr 1; 74(2):178-207. doi: 10.1177/1077558716629039. Epub 2016 Feb 2.
41. Howe CJ. Reducing HIV racial/ethnic disparities: what's good data got to do with it? [Commentary] *Epidemiology*. 2017 Mar;28(2):221-223. doi: 10.1097/EDE.0000000000000583.
42. Gao TY* (mentee), Howe CJ, Zullo AR, Marshall BDL. Risk factors for self-report of not receiving an HIV test among adolescents in NYC with a history of sexual intercourse, 2013 YRBS. *Vulnerable Children and Youth Studies*. 2017; 12(4): 277-291. doi:

- 10.1080/17450128.2016.1268741. Epub 2016 Dec 12. Corrigendum in: *Vulnerable Children and Youth Studies*. 26 July 2017.
43. Kahler CW, Caswell AJ, Laws MB, Walthers J, Magill M, Mastroleo NR, Howe CJ, Souza T, Wilson I, Bryant K, Monti PM. Using topic coding to understand the nature of change language in a motivational intervention to reduce alcohol and sex risk behaviors in emergency department patients. *Patient Education and Counseling*. 2016 Oct;99:1595-1602. <http://dx.doi.org/10.1016/j.pec.2016.05.003>
 44. Cerdá M, Prins SJ, Galea S, Howe CJ, Pardini D. When psychopathology matters most: identifying sensitive periods when within-person changes in conduct problems, depression, and anxiety are associated with male adolescent substance use. *Addiction*. 2016 May;111(5):924-35. doi: 10.1111/add.13304. Epub 2016 Feb 18.
 45. Merchant AT, Georgantopoulos P, Howe CJ, Virani SS, Morales DA, Haddock KS. Effect of long term periodontal care on hemoglobin A1c in individuals with type 2 diabetes. *Journal of Dental Research*. 2016 Apr;95(4):408-15. doi: 10.1177/0022034515622197. Epub 2015 Dec 23.
 46. Loucks EB, Britton WB, Howe CJ, Gutman R, Gilman SG, Brewer J, Eaton CB, Buka SL. Associations of dispositional mindfulness with obesity and central adiposity: The New England Family Study. *Int J Behav Med*. 2016 Apr;23(2):224-33. doi: 10.1007/s12529-015-9513-z.
 47. Howe CJ, Cole SR, Lau B, Napravnik S, Eron JJ. Selection bias due to loss to follow up in cohort studies. *Epidemiology*. 2016 Jan;27(1):91-7. doi: 10.1097/EDE.0000000000000409.
 48. Howe CJ, Cain LE, Hogan JW. Are all biases missing data problems? *Curr Epidemiol Rep*. 2015 Sep 1;2(3):162-171. Epub 2015 Jul 12.
 49. Loucks EB, Britton WB, Howe CJ, Eaton CB, Buka SL. Positive associations of mindfulness with cardiovascular health: The New England Family Study. *Int J Behav Med*. 2015 Aug;22(4):540-50. doi: 10.1007/s12529-014-9448-9.
 50. Loucks EB, Gilman SE, Howe CJ, Kawachi I, Kubzanksy LD, Rudd RE, Martin LT, Nandi A, Wilhelm A, Buka SL. Education and coronary heart disease risk: potential mechanisms such as literacy, perceived constraint and depressive symptoms. *Health Educ Behav*. 2015 Jun;42(3):370-9. doi: 10.1177/1090198114560020. Epub 2014 Nov 27.
 51. Gebrekristos HT, Howe CJ. Ratio of observed and expected joint effects. [Research Letter] *Epidemiology*. 2015 Jan;26(1):e3-e4.
 52. Kinnard EN*, Howe CJ, Kerr T, Hass VS, Marshall BDL. Self-reported changes in drug use behaviors and syringe disposal methods following the opening of a supervised injecting facility in Copenhagen, Denmark. *Harm Reduction J*. 2014 Oct 28; 11(1):29. doi: 10.1186/1477-7517-11-29.

53. Braun JM, Lanphear BP, Calafat AM, Deria S, Khoury J, Howe CJ, Venners SA. Early-life Bisphenol A exposure and child body mass index: A prospective cohort study. *Environ Health Perspect*. 2014 Nov; 122(11):1239-1245. doi: <http://ehp.niehs.nih.gov/1408258/>. Epub 2014 Jul 29.
54. Sahlu I* (mentee), Howe CJ, Clark MA, Marshall BDL. HIV status, knowledge of mother-to-child transmission of HIV and antenatal care use among Ethiopian women. *J Epidemiol Glob Health*. 2014 Sep;4(3):177-184. doi: 10.1016/j.jegh.2014.01.001. Epub 2014 Feb 13.
55. Howe CJ, Napravnik S, Cole SR, Kaufman JS, Adimora AA, Elston B, Eron JJ, Mugavero MJ. African American race and HIV virologic suppression: beyond disparities in clinic attendance. *Am J Epidemiol*. 2014 Jun 15;179(12):1484-92. doi: 10.1093/aje/kwu069. Epub 2014 May 8.
56. Howe CJ, Cole SR, Napravnik S, Kaufman JS, Adimora AA, Elston B, Eron JJ, Mugavero MJ. The role of at-risk alcohol/drug use and treatment in appointment attendance and virologic suppression among HIV+ African Americans. *AIDS Res Hum Retroviruses*. 2014 Mar;30(3):233-40.
57. Escudero DJ*, Lurie MN, Kerr T, Howe CJ, Marshall BDL. HIV Pre-exposure prophylaxis (PrEP) for people who inject drugs: A systematic review and agenda for future research. *J Int AIDS Soc*. 2014 Mar 27;17(1):18899. doi: 10.7448/IAS.17.1.18899. eCollection 2014.
58. Howe CJ, Cole SR, Mehta SH, Kirk GD. Estimating the effects of multiple time-varying exposures using joint marginal structural models: alcohol consumption, injection drug use, and HIV acquisition. *Epidemiology*. 2012 Jul;23(4):574-82. Erratum in: *Epidemiology*. 2015 Jul;26(4):623.
59. Howe CJ, Cole SR, Westreich DJ, Greenland S, Napravnik S, Eron JJ. Splines for trend analysis and continuous confounder control. [Research Letter] *Epidemiology*. 2011 Nov; 22(6): 874-875.
60. Howe CJ, Cole SR, Chmiel JS, Muñoz A. Limitation of Inverse Probability-of-Censoring Weights in Estimating Survival in the Presence of Strong Selection Bias. *Am J Epidemiol*. 2011 March; 173(5):569-577.
61. Howe CJ, Cole SR, Ostrow DS, Mehta SH, Kirk GD. A prospective study of alcohol consumption and HIV acquisition among injection drug users. *AIDS*. 2011 Jan; 25(2):221-228.
62. Howe CJ, Cole SR, Napravnik S, Eron JJ. Enrollment, retention, and visit attendance in the University of North Carolina Center for AIDS Research HIV clinical cohort, 2001-2007. *AIDS Res Hum Retroviruses*. 2010 Aug; 26(8):875-881.
63. Howe CJ, Sander PM, Plankey MW, Cole SR. Effects of time-varying exposures adjusting for time-varying confounders: The case of alcohol consumption and risk of incident human immunodeficiency virus infection. [Commentary] *Int J Public Health*. 2010 Jun; 55(3):227-228.

64. Smith LB, Fadrowski JJ, Howe CJ, Fivush BA, Neu AM, Furth SL. Secondary hyperparathyroidism and anemia in children treated by hemodialysis. *Am J Kidney Dis*. 2010 Feb; 55(2):326-33.
65. Howe CJ, Fuller CM, Ompad DC, Galea S, Koblin B, Thomas D, Vlahov D. Association of sex, hygiene, and drug equipment sharing with hepatitis C virus infection among non-injecting drug users in New York City. *Drug Alcohol Depend*. 2005 Sep 1; 79(3):389-95.

Non-peer-reviewed Journal Articles or Book Reviews

1. Gilman SE, Aiello A, Galea S, Howe CJ, Kawachi I, Lovasi GS, Dean LT, Oakes JM, Siddiqi A, Glymour MM. Advancing the Social Epidemiology Mission of the American Journal of Epidemiology. [Invited Commentary] *Am J Epidemiol*. 2022 Mar 24; 191(4):557-560. doi: 10.1093/aje/kwab277.
2. Naimi AI, Kaufman JS, Howe CJ, Robinson WR. Mediation considerations: serum potassium and the racial disparity in diabetes risk. [Letter to the Editor] *Am J Clin Nutr*. 2011 Aug;94(2):614-6.
3. Howe CJ, Cole SR. Applying Quantitative Bias Analysis to Epidemiologic Data (book review). *Am J Epidemiol*. 2009; 170(10):1316-1317.

Presentations

Talks (Invited)

1. Howe CJ. Using Causal DAGs to Quantify a Racial Health Disparity in the Presence of Non-random Selection. Department of Epidemiology Seminar Series. New York University School of Global Public Health. 2/9/2024.
2. Howe CJ. Using Causal DAGs to Quantify a Racial Health Disparity in the Presence of Non-random Selection. The Dartmouth Institute Seminar Series. 10/27/2023.
3. Howe CJ. Revisiting the Classics: Hernán and Colleagues' A Structural Approach to Selection Bias – A Foundation for Better Unifying Biases Arising from Selection. Symposium: Back to the Future: "I Guess You Guys Aren't Ready for That Yet. But Your Kids are Gonna Love It". 56th Annual Meeting of the Society for Epidemiologic Research. 6/15/2023.
4. Howe CJ. Quantifying a Health Disparity: Considerations Concerning Non-random Selection. Symposium: Emerging Perspectives on Selection Bias. 56th Annual Meeting of the Society for Epidemiologic Research. 6/14/2023.
5. Howe CJ. Using Causal Diagrams to Study and Eliminate Racial Health Disparities: Considerations and Recommendations. Data Science and Health Disparities. Harvard Catalyst Biostatistics Annual Symposium. 3/24/2023.

6. Howe CJ. Using Causal Diagrams to Study and Eliminate Racial Health Disparities: Considerations and Recommendations. Seminars in Epidemiology. Department of Epidemiology, Biostatistics and Occupational Health. McGill University. 1/30/2023.
7. Howe CJ. Teaching Advanced Epidemiologic Methods: Lessons Learned Over a Decade. Symposium: On Teaching Advanced Epidemiologic Methods. 55th Annual Meeting of the Society for Epidemiologic Research. 6/2022.
8. Howe CJ. Using Causal Diagrams to Study and Eliminate Racial Health Disparities: Considerations and Recommendations. Race and Racism in Research Seminar Series. Cincinnati Children's Hospital Medical Center Division of Biostatistics & Epidemiology. 5/11/2022.
9. Howe CJ. Using Causal Diagrams to Study and Eliminate Racial Health Disparities: Considerations and Recommendations. Causal Inference for Social Impact, Society for Causal Inference. 6/2/2021.
10. Howe CJ. (Part 1) Epidemiology and Race: Why and How We Study Race - Etiology. Department of Epidemiology, School of Public Health, Boston University. Cohosted with the Society for Epidemiologic Research. 2/25/2021.
11. Howe CJ. Recommendations for Using Causal Directed Acyclic Graphs to Study Racial Health Disparities. CAAS Rounds, Center for Alcohol and Addiction Studies, Brown University School of Public Health. 2/5/2021.
12. Howe CJ. Performing Causal Mediation Analyses Based on Case-cohort Data: Considerations and Approaches. Causal Inference Working Group, Johns Hopkins University. 11/18/2020.
13. Howe CJ. Selection Bias in Health Disparities Studies. Causal Inference Seminar Series, Boston University. 12/16/2019.
14. Howe CJ. Selection Bias in Health Disparities Studies. Causal Inference Research Group, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC. 11/1/2019.
15. Howe CJ. The Baddest of the Bad: The Case for Selection Bias. Symposium: The Baddest of the Bad: Ranking the Most Pernicious Biases Facing Observational Studies. 52nd Annual Meeting of the Society for Epidemiologic Research. 6/21/2019.
16. Howe CJ. Causal mediation analyses when studying racial/ethnic disparities in HIV and other health disparities. Department of Epidemiology, School of Public Health, Boston University. 2/6/2018.
17. Howe CJ. Causal mediation analyses when studying racial/ethnic disparities in HIV and other health disparities. Quantitative Methods Core Methods Seminars, Department of Quantitative Health Sciences, University of Massachusetts Medical School. 1/16/2018.

18. Howe CJ. Causal mediation analyses when studying HIV racial/ethnic and other health disparities. Department of Biostatistics Seminar/Workshop Series, School of Medicine, Vanderbilt University. 8/30/2017.
19. Howe CJ (presenting author), Cole SR, Hogan JW, Lau B, Crane H, Drozd D, Moore R, Mathews WC, Geng E, Boswell SL, Napravnik S, Eron, Jr. JJ, Mugavero MJ for the CFAR Network of Integrated Clinical Systems (CNICS). A methodological framework for evaluating the long-term population impact of intervening on specific targets to reduce HIV-related racial/ethnic disparities. University of Pittsburgh Graduate School of Public Health. 4/1/2016.

Talks (Conferences)

1. Silva JBB* (presenting author), Howe CJ, Jackson JW, Riester MR, Bardenheier H, Xu L, Puckrein G, van Aalst R, Loiacono MW, Zullo AR. High-Dose Influenza Vaccine Receipt: Geographic Variation in Racial Health Disparities. 39th International Conference on Pharmacoepidemiology and Therapeutic Risk Management (ICPE 2023). 8/23/23-8/27/23.
2. Nolen S* (presenting author), Howe CJ, Sullivan PS, Goedel WC, Brawner BM, Biello KB, Marshall BDL. Gentrification may do more than displace residents: an ecological analysis examining gentrification and HIV diagnoses in four US cities. 56th Annual Meeting of the Society for Epidemiologic Research. 6/14/23.
3. Ozdemir S, Sears CG, Harrington JM, Poulsen AH, Buckley J, Howe CJ, James KA, Tjonneland, A, Wellenius GA, Raaschou-Nielsen O, Meliker J (presenting author). Relationship between urine creatinine and urine osmolality in spot samples among men and women in the Danish Diet Cancer and Health Cohort. International Society of Exposure Science 2022 Annual Meeting. 9/2022.
4. Park J (presenting author and mentee), Mealy R, Saldanha IJ, Loucks EB, Needham BL, Sims M, Fava JL, Dulin AJ, Howe CJ. Systematic review and meta-analysis of the relationship between resilience resources and cardiovascular disease in the United States. 54th Annual Meeting of the Society for Epidemiologic Research. 6/2021.
5. Dulin AJ (presenting author), Earnshaw VA, Dale SK, Carey MP, Fava JL, Wilson-Barthes M, Dougherty-Sheff S, Johnson B, Howe CJ. Identifying multilevel resilience resources among African-American/Black adults living with HIV in the southern United States. Society of Behavioral Medicine's 2021 Annual Meeting & Scientific Sessions. 3/2021.
6. Noshad S* (presenting author), Howe CJ, LaMonte MJ, Eaton CB. Role of physical activity in lowering racial inequalities in heart failure incidence: A Women's Health Initiative Study. 53rd Annual Meeting of the Society for Epidemiologic Research. 12/2020.
7. Sears CG (presenting author), Raaschou-Nielsen O, Poulsen AH, Harrington J, Howe CJ, James KA, Wellenius GA, Meliker J. Urinary cadmium and risk of incident heart failure and acute myocardial infarction among never-smokers in the Danish Diet, Cancer, and Health Cohort. Annual Meeting for the International Society for Environmental Epidemiology (ISEE). 8/2020.

8. Noshad S* (presenting author and mentee), Howe CJ, LaMonte MJ, Liu S, Roberts MB, Allison M, Shadyab AH, Sun Y, Evenson K, Martin LW, Reding K, Panjrath G, Brinkley TE, Manson JE, Eaton CB. Effect of longitudinally measured physical activity on the 10-year risk of heart failure among postmenopausal women: A Women's Health Initiative study. 52nd Annual Meeting of the Society for Epidemiologic Research. 6/2019.
9. Glaser G (presenting author), Miller K, Bevis K, Howe CJ, Wohlrab K, Sung V, Richter HE, Lokich L, McCourt C, Brown A, Wethington S, Carlson M, DiSilvestro P, Lowder J, Rahn D, Occhino J, Dunivan G, Tunistky E, Chen G, Luis C, Raker C, Clark M, Robison K. Opportunities to improve sexual health and quality of life in endometrial cancer survivors. Society for Gynecologic Oncology 50th Annual Meeting on Women's Cancer. 3/2019.
10. Robison K (presenting author), Bevis K, Howe CJ, Wohlrab K, Sung V, Richter HE, Lokich L, McCourt C, Glaser G, Brown A, Wethington S, Carlson M, DiSilvestro P, Lowder J, Rahn D, Occhino J, Dunivan G, Tunistky E, Chen G, Luis C, Raker C, Clark M. Concomitant surgical treatment of urinary incontinence at the time of the endometrial cancer surgery is associated with improved quality of life: Cancer of the Uterus and Treatment of Incontinence (CUTI) Study. Society for Gynecologic Oncology 50th Annual Meeting on Women's Cancer. 3/2019.
11. Wohlrab KJ (presenting author), Sung VW, Robison K, Howe CJ, Raker, C, Bevis K, Lowder J, Occhino J, Dunivan G, Rahn D, Tunistky E, Chen G, Lokich L, McCourt C, Glaser G, Brown A, Wethington S, Carlson M, Luis C, Clark M, Richter HE. Clinical characteristics of women choosing concurrent anti-incontinence surgery at time of hysterectomy for endometrial cancer. American Urogynecologic Society PFD Week 2018 meeting. 10/11/2018.
12. Howe CJ. Minimizing survival-related and other sources of selection bias in studies of racial health disparities: the importance of the target population and study design. 51st Annual Meeting of the Society for Epidemiologic Research. 6/21/2018.
13. Cressman AE* (presenting author and mentee), Howe CJ, Nunn AS, Adimora AA, Williams DR, Kempf M, Chandran A, Wentz EL, Blackstock OJ, Kassaye SG, Cohen J, Cohen MH, Wingood GM, Metsch LR, Wilson TE for the WIHS Investigators. The relationship between discrimination and missed scheduled HIV care appointments among women living with HIV. 51st Annual Meeting of the Society for Epidemiologic Research. 6/20/2018.
14. Shangani S* (presenting author), Operario D, Zullo AR, Kipruto K, Howe CJ. Prevalence and predictors of concurrent sexual partnerships among sexually active men in Kenya. APHA 2017 Annual Meeting & Expo. 11/2017.
15. Howe CJ (presenting author), VanderWeele TJ, Lee H, Wellenius GA, Meliker J. A methodological approach for performing causal mediation analyses based on case-cohort data. 50th Annual Meeting of the Society for Epidemiologic Research. 6/22/2017.
16. Kahler CW (presenting author), Laws MB, Walthers J, Caswell A, Magill M, Mastroleo N, Howe CJ, Souza T, Wilson I, Bryant K, Monti, P. MI theory meets communication theory: A

multi-dimensional system for rating MI sessions that target multiple risk behaviors. 38th Annual Meeting of the Research Society on Alcoholism. 6/2015.

17. Okidi EA* (presenting author), Hogan JW, Howe CJ, Bloomfield GS, Kimaiyo S. The impact of analysis method and model specification for handling missing covariate data in survival analysis: A case study of the effect of hypertension on mortality among HIV-infected persons in Kenya. 48th Annual Meeting of the Society for Epidemiologic Research. 6/17/2015.
18. Loucks EB (presenting author), Britton WB, Howe CJ, Gilman SE, Brewer J, Eaton CB, Buka SL. Associations of Dispositional Mindfulness With Obesity and Central Adiposity: The New England Family Study. American Psychosomatic Society Annual Meeting. 3/19/2015.
19. Braun JM (presenting author), Lanphear BP, Calafat AM, Deria S, Howe CJ, Venners SA. Early life bisphenol A exposure and child body-mass index: A prospective cohort study. 2014 Meeting of the International Society for Environmental Epidemiology. 8/28/2014.
20. Howe CJ (presenting author), Napravnik S, Cole SR, Kaufman JS, Adimora AA, Elston B, Eron JJ, Mugavero MJ. African American race and HIV virologic suppression beyond disparities in clinic attendance: a causal mediation analysis approach. 47th Annual Meeting of the Society for Epidemiologic Research. 6/25/2014.
21. Howe CJ (presenting author), Cole SR, Lau B. Absolute and relative selection bias due to loss in cohort studies: sources and non-standard approaches. 47th Annual Meeting of the Society for Epidemiologic Research. 6/26/2014.
22. Howe CJ. Rationale: why perform effect decomposition? 45th Annual Meeting of the Society for Epidemiologic Research. 6/29/2012.
23. Howe CJ (presenting author), Cole SR, Mehta SH, Kirk GD. Estimation of joint effects of multiple time-varying exposures in infectious disease research. 2012 Eastern North American Region of the International Biometric Society. 4/3/2012.
24. Howe CJ (presenting author), Cole SR, Chmiel J, Muñoz A. Pitfalls of methods for estimating survival in the presence of strong selection bias induced by artificial censoring. 42nd Annual Meeting of the Society for Epidemiologic Research. 6/25/2009.

Posters (Conferences)

1. Silva JBB* (presenting author), Howe CJ, Jackson JW, Riester MR, Bardenheier BH, Xu L, Puckrein G, van Aalst R, Loiacono MM, Zullo AR. High-Dose Influenza Vaccine Receipt: Geographic Variation in Racial Health Disparities. AcademyHealth's 2023 Annual Research Meeting. 6/26/2023. Abstract no. C-372. Poster Session C.
2. Wilson-Barthes MG, Park J (presenting author and mentee), Hogan JW, Mugavero MJ, Napravnik S, Carey MP, Fava JL, Dale SK, Earnshaw VA, Johnson B, Dougherty-Sheff S, Agil D, Howe CJ, Dulin AJ. Multilevel resilience and visit adherence among African

American/Black adults living with HIV in the southeastern United States. 56th Annual Meeting of the Society for Epidemiologic Research. 6/15/23.

3. Sears CG, Eliot M, Poulsen AH, Harrington JM, Howe CJ, James KA, Raaschou-Nielsen O, Wellenius GA, Meliker J (presenting author). Comparing Creatinine and Osmolality Adjustment for Urinary Dilution in Case-cohort Studies of Urine Cadmium and Cardiovascular Disease Endpoints. International Society of Exposure Science 2022 Annual Meeting. 9/2022.
4. Silva JBB* (presenting author), Howe CJ, Jackson JW, Bardenheier BH, Riester MR, Van Aalst R, Loiacono MM, Zullo AR. Influenza Vaccine Uptake among United States Nursing Home Residents: Measuring Geographic Variation in Racial Health Disparities. International Conference on Pharmacoepidemiology and Therapeutic Risk Management. 8/2022.
5. Silva JBB* (presenting author), Howe CJ, Jackson JW, Bardenheier BH, Riester MR, Van Aalst R, Loiacono MM, Zullo AR. Estimation of Racial Disparities in Influenza Vaccine Use among Nursing Home Residents. 55th Annual Meeting of the Society for Epidemiologic Research. 6/2022.
6. Silva JBB* (presenting author), Howe CJ, Jackson JW, Bardenheier BH, Riester MR, Van Aalst R, Loiacono MM, Zullo AR. Disparities in Influenza Vaccine Use in Nursing Homes by Marginalized Racial Group Status and Geography. AcademyHealth's 2022 Annual Research Meeting. 6/2022.
7. Gantenberg JR* (presenting author), McConeghy KW, Howe CJ, Steingrimsson J, van Aalst R, Chit A, Zullo AR. Assessing the super learner as a tool for predicting seasonal influenza hospitalizations: a simulation study. 54th Annual Meeting of the Society for Epidemiologic Research. 6/2021.
8. Sears CG (presenting author), Poulsen AH, Eliot M, Howe CJ, James KA, Harrington J, Roswall N, Overvad K, Tjønneland A, Raaschou-Nielsen O, Wellenius GA, Meliker J. Comparing creatinine and osmolality for urine dilution adjustment in case-cohort studies of urine cadmium and risk of incident heart failure in the Danish Diet, Cancer, and Health Cohort. Annual meeting for the International Society for Environmental Epidemiology (ISEE). 8/2020.
9. Miller K (presenting author), Lokich E, Bevis K, Howe CJ, Wohlrab K, Richter HE, Sung V, McCourt C, Glaser G, Brown A, Wethington S, Carlson M, DiSilvestro P, Lowder J, Rahn D, Occhino J, Dunivan G, Tunistky E, Chen G, Luis C, Raker C, Clark M, Robison K. Distance to referral center and race/ethnicity among women choosing pre-operative urogynecology referral: Cancer of the Uterus and Treatment of Incontinence (CUTI) Study. Society for Gynecologic Oncology 50th Annual Meeting on Women's Cancer. 3/2019.
10. Glassman D (presenting author), Wohlrab K, Bevis K, Sung V, Richter HE, Howe CJ, Lokich L, McCourt C, Glaser G, Brown A, Wethington S, Carlson M, DiSilvestro P, Lowder J, Rahn D, Occhino J, Dunivan G, Tunistky E, Chen G, Luis C, Raker C, Clark M, Robison K. Adverse outcomes among women after concurrent surgery for endometrial cancer and

pelvic floor disorders: The Cancer of the Uterus and Treatment of Incontinence (CUTI) Trial. Society for Gynecologic Oncology 50th Annual Meeting on Women's Cancer. 3/2019.

11. Dulin A (co-first author), Dale SK (co-first author and presenting author), Earnshaw VA, Fava JL, Mugavero MJ, Napravnik S, Hogan JW, Carey MP, Howe CJ. Resilience and HIV: a review of the definition and study of resilience. 2018 Annual Meeting of the American Psychosomatic Society. 3/10/2018.
12. Adams JW* (presenting author and mentee), Howe CJ, Zullo AR, Keita AD, Marshall BDL. Estimating the impact of intervening on adolescent binge drinking on neighborhood poverty-based disparities in HIV/STI prevalence: a causal mediation analysis. 2017 Annual Meeting of the Society for Adolescent Health and Medicine. 3/10/2017.
13. Adams JW* (presenting author and mentee), Howe CJ, Andrews AC, Allen SL, Vinnard C. Tuberculosis screening among HIV-infected patients: tuberculin skin test vs. interferon-gamma release assay. IDWeek Meeting. 10/27/2016.
14. Schwartz M* (presenting author), Trivedi A, Howe CJ. Examining the relationship between patient reported receipt and comprehension of discharge instructions and 30 day hospital readmissions. 22nd Annual NRSA Research Trainees Conference. 6/26/2016.
15. Howe CJ (presenting author), Dulin-Keita A, Cole SR, Hogan JW, Lau B, Crane H, Drozd D, Moore R, Mathews WC, Geng E, Boswell SL, Napravnik S, Eron, Jr. JJ, Mugavero MJ for the CFAR Network of Integrated Clinical Systems (CNICS). Evaluating the long-term population impact of intervening on specific targets to reduce HIV racial/ethnic disparities: a conceptual and methodological framework. 2016 Epidemiology Congress of the Americas Meeting. 6/23/2016.
16. Rebeiro PF (presenting author and mentee), Howe CJ, Rogers WB, Bebawy SS, Turner M, Kheshti A, McGowan CC, Raffanti SP, Sterling TR. Poor neighborhood socioeconomic context negatively influences retention in HIV care. 2016 Epidemiology Congress of the Americas meeting. 6/22/2016.
17. Zullo AR* (presenting author and mentee), Howe CJ, Galárraga O. Estimating the effect of health insurance on personal prescription drug importation in various subpopulations using complex survey data and marginal structural models. 48th Annual Meeting of the Society for Epidemiologic Research. 6/17/2015.
18. Merchant AT (presenting author), Gerogantopoulos P, Morales D, Howe CJ, Tang Y, Virani SS, Haddock KS. Effect of periodontal treatment and maintenance on glycated hemoglobin. 93rd General Session & Exhibition of the International Association for Dental Research Meeting. 3/11/15 - 3/14/15.
19. Braun JM (presenting author), Lanphear BP, Calafat AM, Deria S, Howe CJ, Venners SA. Early life bisphenol A exposure and child body-mass index: A prospective cohort study. 47th Annual Meeting of the Society for Epidemiologic Research. 6/25/2014.

20. Howe CJ (presenting author), Napravnik S, Cole SR, Kaufman JS, Adimora AA, Elston B, Eron JJ, Mugavero MJ. African American race and HIV virologic suppression beyond disparities in clinic attendance: a causal mediation analysis approach. 18th International Workshop on HIV Observational Databases. Abstract 18_4. 3/27/14.
21. Loucks EB (presenting author), Britton WB, Howe CJ, Eaton CB, Buka SL. Positive Associations of Mindfulness with Cardiovascular Health. 2014 American Psychosomatic Society Annual Meeting. 3/2014.
22. Escudero DJ* (presenting author), Howe CJ, Lurie M, Marshall BD. A systematic review of HIV pre-exposure prophylaxis (PrEP) among injection drug users. Controlling the HIV Epidemic with Antiretrovirals: From Consensus to Implementation Evidence Summit. Abstract 63. 9/23/2013.
23. Howe CJ (presenting author), Mugavero MJ, Cole SR, Napravnik S, Kaufman JS, Adimora AA, Eron JJ. The role of alcohol/drug abuse and treatment in appointment attendance and virologic response among HIV+ African Americans. 46th Annual Meeting of the Society for Epidemiologic Research. Abstract 180. 6/18/2013.
24. Howe CJ (presenting author), Cole SR, Westreich DJ, Greenland S, Napravnik S, Eron JJ. Splines for trend analysis and continuous confounder control in epidemiologic research. 3rd North American Congress of Epidemiology. 6/23/2011.
25. Howe CJ (presenting author), Cole SR, Mehta SH, Kirk GD. Estimating effects of alcohol consumption and drug injection frequency on HIV acquisition using joint marginal structural models. 15th International Workshop on HIV Observational Databases. Abstract 15_16. 3/24/11; 3rd North American Congress of Epidemiology. 6/21/2011.
26. Howe CJ (presenting author), Cole SR, Ostrow DS, Mehta SH, Kirk GD. Marginal structural models to estimate the effect of alcohol consumption on HIV acquisition. 14th International Workshop on HIV Observational Databases. Abstract 14_38. 3/25/10; 43rd Annual Meeting of the Society for Epidemiologic Research. Abstract 557. 6/25/2010.
27. Weiderkehr D (presenting author), Howe CJ, Casciano R, Motzer R, Zheng J, Baladi JF. Overall survival among metastatic renal cell carcinoma patients corrected for crossover using inverse probability-of-censoring weights: analyses from the RECORD-1 Phase 3 Trial. ECCO 15-34th ESMO Multidisciplinary Congress. Abstract 7.131. Poster Board 144. 9/21/2009.
28. Howe CJ (presenting author), Fuller CM, Ompad DC, Galea S, Koblin B, Thomas D, Vlahov D. Risk correlates for HCV infection among non-injecting drug users in New York City XV International AIDS Conference. Abstract TuPeB4681. 7/13/2004.

Research Grants

Current

1. 1R01AR081125-01A1 (J. Meliker, PI)
NIH/NIAMS

September 2021 to August 2026

Howe

16

*A portion of or all work completed as a student

Urine Cadmium and Risk of Fracture and Bone Loss

Mechanistic experiments and cross-sectional epidemiologic studies have linked cadmium to low bone mineral density, osteoporosis, and fracture; however, currently lacking are large prospective epidemiologic studies. We propose to leverage existing samples and data from the two largest prospective US osteoporosis cohort studies to perform an in-depth investigation of cadmium, bone loss, and fractures. These studies promise to transform the field of Cd-bone research and have high potential to impact policy decisions in the US and globally.

Role: Co-Investigator and Subcontract-PI

2. R01 HL150170-01A1 (C. Eaton, N. Allen, and C. Howe; MPIs) April 2021 to March 2025
NIH/NHLBI

Racial/Ethnic Disparities in Heart Failure: A Cross-Cohort Collaboration

This Racial/Ethnic Disparities in Heart Failure: A Cross-Cohort Collaboration study will evaluate the magnitude and potential causes of racial/ethnic and sex disparities in incident heart failure and its subtypes and their prognosis in over 130,000 men and women from 10 pooled cohorts. We will evaluate the impact of hypothetical lifestyle and clinical risk factors interventions on reducing the racial/ethnic disparities in developing HF. In addition using unsupervised machine learning phenomapping techniques, we will evaluate subtypes of HF and their prognosis, including models stratified by race/ethnicity.

3. R01 MH112386 (C. Howe, A. Dulin-Keita; MPIs) August 2017 to May 2024 (NCE)
NIH/NIMH

The Role of Resilience in Addressing Racial Disparities in Adverse HIV-Related Outcomes

The objective of this project is to develop a reliable and valid measure of multiple components of resilience (i.e., individual, interpersonal, and neighborhood) that reflects the experiences of HIV+ African Americans/Blacks (AAs); to document the measure's psychometric properties; and to assess whether multiple components of resilience as assessed by the developed measure facilitate positive HIV outcomes among HIV+ AAs.

Completed

1. U24 AA022003 (C. Kahler, PI) September 2016 to August 2023 (NCE)
NIH/NIAAA

Behavioral Science and Biostatistics Resource Core for Alcohol-HIV Research

This project supports a resource core that brings together expertise in (a) the effective implementation of contingency management and motivational interventions to reduce drinking and improve related HIV outcomes, (b) the study of mechanisms of behavior change in alcohol counseling and HIV care, and (c) the use of sophisticated data analytic methods for observational and experimental data.

Role: Co-Investigator

2. Sanofi Infection in LTCF Study (A. Zullo, PI) September 2021 to July 2023 (NCE)
The Burden of Infections in Long-Term Care Facilities Identification, Treatment, and Health Outcomes: Novel Combinations of Geospatial and Health Services Research Methods to Understand Variation in Vaccine and Other Health Service Use (The "GEO-HSR" Study) – Phase 4

This project aims to provide: 1) novel methods for examining geographic variation in racial-ethnic disparities in vaccination for use in a wide variety of datasets; 2) evidence describing racial-ethnic disparities in influenza vaccine use in LTCFs along with opportunities to target specific geographic areas to improve vaccination uptake and eliminate disparities; and 3) evidence on how racial-ethnic disparities in influenza vaccine use occur outside of LTCFs and additional opportunities for targeting specific geographic areas.

Role: Co-Investigator

3. R01 HL135200 (A. Dulin-Keita, C. Howe; MPIs) August 2018 to July 2023 (NCE)
NIH/NHLBI
Impact of Multilevel Risk and Resilience Factors on Cardiovascular Health in Racially/Ethnically Diverse Men and Women
Using longitudinal data in three United States cardiovascular (CV) health cohorts (i.e., JHS, MESA, and MASALA), this innovative project will: (a) determine whether multilevel resilience resources are associated with CV outcomes (i.e., ideal CV health and incident CV disease); (b) quantify the impacts of hypothetical multilevel resilience resource building interventions on racial/ethnic disparities and sex differences in CV outcomes; and (c) examine the degree to which the aforementioned relationships/impacts are moderated by multilevel psychosocial risks.
4. R01 ES026614 (J. Meliker, PI) March 2017 to November 2021 (NCE)
NIH/NIEHS
Urinary Cadmium and Risk of Cardiovascular Disease
The main objective of the proposed study is to investigate the association between markers of long-term cadmium exposure and incident cardiovascular events at cadmium levels that are relevant to the general population. This proposal represents a unique opportunity to leverage data from an established population-based prospective cohort with a large number of never-smokers, a well characterized population, baseline urinary samples available for cadmium analysis, and a large number of CVD events.
Role: Co-Investigator
5. R56 AI120830 (C. Howe, PI) August 2016 to July 2019 (NCE)
NIH/NIAID
Pathways Contributing To Racial Disparities in HIV Virologic Response
Bridge funding for the “Pathways Contributing to Racial Disparities in HIV Virologic Response” R01 grant (R01 AI120830) which proposed to establish if and quantify the extent to which inadequate insurance and food insecurity contribute to substantial and long-standing racial differences in virologic response between HIV-infected African American and Caucasian adults in the United States.
6. CER-1409-22034 (K. Robison, PI) July 2015 to February 2019 (NCE)
PCORI
Cancer of the Uterus and Treatment for Stress Urinary Incontinence
The goal of this study is to compare the quality of life among women with both endometrial cancer and stress urinary incontinence (SUI) that choose to have their SUI treated at the same time as their endometrial cancer surgery to women that do not have concurrent surgery.

Role: Co-Investigator and Subcontract-PI

7. U24 AA022003 (C. Kahler, PI) September 2012 to August 2016
 NIH/NIAAA
Mechanisms of behavior change resource core for alcohol-HIV interventions
 This project supports a resource core that will code clinical dialogues in five alcohol-HIV intervention trials to assess mechanisms of behavior change in both alcohol use and HIV-related behaviors such as HAART adherence, sexual risk behavior, and acceptance of alcohol pharmacotherapy.
 Role: Co-investigator

8. R03 DE022785 (A. Merchant, PI) April 2013 to March 2016 (NCE)
 NIH/NIDCR
Marginal structural models to get periodontal treatment effects on A1C in diabetes
 To use marginal structural models to evaluate the long-term effect (over 2 years) of the American Academy of Periodontology (AAP) recommended treatment for chronic periodontitis on A1C among individuals with diabetes mellitus (DM) using data from the Veterans Administration computerized database in a prospective study design.
 Role: Co-investigator and Subcontract-PI

9. K22 AI095021 (C. Howe, PI) February 2012 to July 2014 (NCE)
 NIH/NIAID
Missed visits and virologic failure among HIV infected African Americans receiving medical care
 To use rich prospective data and state of the art quantitative methods to examine pathways contributing to missed scheduled clinic visits and virologic failure among African Americans receiving HIV medical care.

10. R01 AA017594 (S. Cole, PI) June 2009 to July 2011
 NIH/NIAAA
Structural models and direct and indirect effects of alcohol use on HIV infection
 To use NIH-funded data sources to adapt, apply and refine novel analytic epidemiologic methods to characterize the relation, and estimate the impact, of alcohol intake and patterns on risk of infection with HIV.
 Role: Post Doctoral Research Associate

11. F31 DA022114 (C. Howe, PI) September 2006 to June 2009
 NIH/NIDA
Methods for informative censoring in HIV/AIDS cohorts
 To extend and characterize methods for addressing informative censoring in HIV/AIDS cohort studies.

Service

Brown University

- Director, Chair, or Faculty Advisor
 - Doctoral Program Director, Department of Epidemiology, Brown University School of Public Health, Summer 2021 to 2/7/2024
 - Chair, Methods Instructors Committee (also referred to as Methods Curriculum Review Committee), Department of Epidemiology, Brown University School of Public Health, Spring 2020 to Present
 - Master's Program Director, Department of Epidemiology, Brown University School of Public Health, Summer 2019 to Fall 2020
 - Chair, Doctoral Written Qualifying Examination Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2014 to Spring 2016 and Fall 2017 to Spring 2019
 - Faculty Advisor, Student Journal Club, Department of Epidemiology, Brown University School of Public Health, Fall 2016 and Fall 2017 to Spring 2018
 - Director of Epidemiology Track, Master of Public Health Program, Brown University School of Public Health, Spring 2014
- Member, Speaker, Panelist, or Reviewer
 - Member, Task Force on Standards, Criteria and Procedures for Faculty Actions, Department of Epidemiology, Brown University School of Public Health, Fall 2023 to Spring 2024
 - Member, Doctoral Written Qualifying Examination Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2012 to Spring 2014, Fall 2019 to Spring 2020, and Fall 2021 to Present
 - Member, Committee on Nominations, Brown University, Summer 2022 to Spring 2025
 - Member, Department Chair Search Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2014 to Spring 2015 and June 2020 to January 2021
 - Member, Operational Working Group on Mental Health, Resilience, and Mindfulness, Brown University School of Public Health, Summer 2019 to Fall 2019
 - Member, Targeted Hire Search Committee, Department of Epidemiology, Brown University School of Public Health, Spring 2018
 - Member, Curriculum Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2016 and Fall 2017 to Spring 2019
 - Panelist, Academic Search Panel for Brown Trainees, Brown University, 4/27/2016
 - Reviewer, Student Conference Abstract Competition, Department of Epidemiology, Brown University School of Public Health, Fall 2015
 - Member, Advisory Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2015 to Fall 2016, Fall 2017 to Spring 2018, and Fall 2019
 - Member, PhD Admissions Committee, Department of Epidemiology, Brown University School of Public Health, Spring 2014 to Spring 2016 and Fall 2018 to Spring 2019

- Member, Academic Programs Committee, Departmental Review Self-study, Department of Epidemiology, Brown University School of Public Health, Spring 2014
- Member, Seminar Series and Social Events Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2012 to Spring 2014
- Speaker, “Using graphical models to represent causal effects”, The Brown University Alcohol Research Center on HIV Summer Research Workshop: Causality 101, 7/13/2012
- Member, Methods Instructors Committee, Department of Epidemiology, Brown University School of Public Health, Spring 2012 to Spring 2013
- Member, Methods Curriculum Review Committee, Department of Epidemiology, Brown University School of Public Health, Fall 2011 to Spring 2012

Profession

- Editor Activities
 - Associate Editor, American Journal of Epidemiology, 11/1/2019 to 12/20/23
 - Editor, American Journal of Epidemiology, 12/21/2023 to Present
- Peer Review Activities
 - Journal Manuscript Reviewer
 - AIDS and Behavior, 2016
 - American Journal of Epidemiology, 2009, 2010, 2012 to 2023
 - American Journal of Nephrology, 2013
 - Annals of Epidemiology, 2014
 - Antiviral Therapy, 2010
 - Epidemiology, 2010 to 2014, 2016 to 2017, 2019 to 2021, 2023
 - Epidemiologic Methods, 2012
 - Epidemiologic Reviews 2022 to 2023
 - Evaluation Review, 2011
 - Health Education and Behavior, 2015
 - International Criminal Justice Review, 2015
 - International Journal of Epidemiology, 2010, 2018
 - International Journal of Public Health, 2011
 - Journal of Acquired Immune Deficiency Syndromes, 2013
 - Journal of Clinical Epidemiology, 2018
 - Medical Care, 2015, 2019
 - Scandinavian Journal of Statistics, 2012
 - Social Science Research, 2011
 - Statistical Methods in Medical Research, 2010
 - Statistics in Medicine, 2013 to 2016
 - Conferences/Meetings
 - Poster Judge
 - Poster Session 1, 51st Annual Meeting of the Society for Epidemiologic Research, 6/19/2018
 - Poster Session 2, 45th Annual Meeting of the Society for Epidemiologic Research, 6/28/2012
 - Grants and other proposals

- Ad hoc Reviewer
 - Study Concept Proposal, Center for AIDS Research Network for Integrated Clinic Systems (CNICS), 2018
 - AIDS Clinical Studies and Epidemiology (ACE) Study Section, NIH, 11/8/2011
 - Other
 - Abstract Reviewer
 - Jackson Heart Study, 2021
 - Other Activities
 - Invited Speaker
 - [Selection Bias and Generalizability](#), SERious Epidemiology Podcast, A podcast about epidemiologic methods for the Society for Epidemiologic Research, 5/30/2023
 - Panelist
 - Importance of Mentoring in Your Careers - Panel Discussion, Resources for Successful Transition to Academia and Research Opportunities, National Institute of Allergy and Infectious Diseases, National Institutes of Health, 5/4/2022
 - Roadblocks on Getting Your Dissertation Done, 54th Annual Meeting of the Society for Epidemiologic Research, 6/25/2021
 - The American Journal of Epidemiology Meet the Editors, 54th Annual Meeting of the Society for Epidemiologic Research, 6/2021
 - How Can Epidemiologists Ask Better Questions and Get Better Answers? UNC 2nd Annual Zoomposium on Epidemiology Methods. Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, 5/4/2021
 - The American Journal of (Social) Epidemiology Panel, 53nd Annual Meeting of the Society for Epidemiologic Research, 12/17/2020
 - Dissertation Survival Skills, 52nd Annual Meeting of the Society for Epidemiologic Research, 6/21/2019
 - Member, Education and Professional Development Committee, Society for Epidemiologic Research, Summer 2023 to Spring 2026
 - Faculty, Student Dissertation Workshop, 54th Annual Meeting of the Society for Epidemiologic Research, 6/21/2021 to 6/22/2021
 - Mentor, SER-SPC Speed Networking
 - 54th Annual Meeting of the Society for Epidemiologic Research, 6/24/2021
 - 53nd Annual Meeting of the Society for Epidemiologic Research, 12/17/2020
 - Member, Development Committee, Society for Causal Inference, June 2020 to June 2021
 - Member, Mentoring Committee, Society for Epidemiologic Research, Summer 2019 to Spring 2022
 - Instructor, Selection Bias – Concepts, Definitions, and Tools, Epi Tools Workshop Series, Department of Epidemiology and Biostatistics, University of California, San Francisco, 1/14/2019

- Speaker, Study designs for causal inference, First short course on strengthening causal inference in behavioral obesity research, University of Alabama at Birmingham, 7/20/2015
- Member, Organizing Committee, Atlantic Causal Inference Conference, Fall 2013 to Spring 2014
- Co-instructor, Pre-meeting Workshop, Introduction to analysis of discrete and continuous time-to-event data, 47th Annual Meeting of the Society for Epidemiologic Research, 6/24/2014
- Symposium or contributed abstracts session Chair/Co-chair/Facilitator/Co-Facilitator
 - Co-Chair, Preparing epidemiology master's students to meet careers goals and the needs of the public health workforce: the training landscape and opportunities for improvement, 57th Annual Meeting of the Society for Epidemiologic Research, 6/2024
 - Co-Chair, Overcoming gaps: missing data and pooled analyses, 55th Annual Meeting of the Society for Epidemiologic Research, 6/2022
 - Chair, Recent Developments in HIV and STI Research, 53rd Annual Meeting of the Society for Epidemiologic Research, 12/17/2020
 - Co-facilitator, A Facilitated Discussion with Keynote Speaker Professor Ibram X. Kendi, Plenary Session 1, 53rd Annual Meeting of the Society for Epidemiologic Research, 12/16/2020
 - Chair, Methods for mediation analysis: recent developments as well as comparing and integrating approaches, 51st Annual Meeting of the Society for Epidemiologic Research, 6/20/2018
 - Co-chair, Marching towards progress in causal inference for health disparities research, 51st Annual Meeting of the Society for Epidemiologic Research, 6/21/2018
 - Chair, Novel approaches to enhance inference and better inform decision-making, 2016 Epidemiology Congress of the Americas Meeting, 6/23/2016
 - Co-chair, Selection bias due to loss: an old and often ignored problem revisited, 47th Annual Meeting of the Society for Epidemiologic Research, 6/26/2014
 - Co-chair, Generalizing evidence from non-representative study populations, 2014 Atlantic Causal Inference Conference, 5/15/2014
 - Co-chair, Effect decomposition: the lost epidemiologic analysis, 45th Annual Meeting of the Society for Epidemiologic Research, 6/29/2012
- Discussion Leader, Roundtables, Methodological challenges in racial/ethnic disparities research, 46th Annual Meeting of the Society for Epidemiologic Research, 6/19/2013
- Coordinator, University of North Carolina Causal Inference Research Group, Fall 2010 to Spring 2011

Honors

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- Appointed as endowed RGSS Assistant Professor of Public Health at Brown University (2018)

- Named one of the 10 Best Reviewers of 2014 for the American Journal of Epidemiology
- National Institutes of Health Clinical Loan Repayment Program – National Institute on Alcohol Abuse and Alcoholism, Recipient (2010 to 2012)
- Society for Epidemiologic Research Poster Prize, Recipient (with Stephen R. Cole, David G. Ostrow, Shruti H. Mehta, and Gregory D. Kirk) (2010)
- Delta Omega National Public Health Honor Society - Alpha Chapter, Inductee (2010)
- Bloomberg School of Public Health Predoctoral Minority Health Scholarship, Recipient (2004 to 2006)
- Mailman School of Public Health Initiative for Maximizing Student Diversity Fellowship, Recipient (2002 to 2004)
- Mailman School of Public Health Phoenix Fellowship, Recipient (2002 to 2003)
- MIT Office of Minority Education Academic Excellence Award, Recipient
- MIT Office of Minority Education Multicultural Community Service Award, Recipient

Teaching

Primary Instructor, Department of Epidemiology, Brown University School of Public Health

- Racial/Ethnic, Socioeconomic, and Other Group-Based Health Disparities in the United States, Spring 2019 – 4 Graduate Students
- Applied Epidemiologic Analysis Using SAS, Spring 2016 and Spring 2018 – Typically 20 Graduate Students
- Advanced Quantitative Methods in Epidemiologic Research, Spring 2012, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023 – Typically 4-14 Graduate (or Other) Students

Co-instructor, Department of Epidemiology, Brown University School of Public Health

- Methodological Issues in the Epidemiology, Treatment, and Prevention of HIV, Spring 2013 – 4 Graduate Students

Guest Instructor or Prepared/Updated Course Materials, Department of Epidemiology, Brown University School of Public Health

- “Effect modification versus interaction”, Introduction to Methods in Epidemiologic Research, Fall 2017, Fall 2018, Fall 2019, and Fall 2020
- Communicable diseases – outbreak investigation, Public Health 101, Fall 2015 and Fall 2017
- “Standardization”, Intermediate Methods in Epidemiologic Research, Spring 2015, Spring 2016, and Spring 2018
- “Logistic regression and noncollapsibility of the odds ratio”, Intermediate Methods in Epidemiologic Research, Spring 2015
- “The epidemiology and health disparities of HIV in the United States”, Methodological Issues in Epidemiology, Treatment, and Prevention of HIV, Spring 2015
- “Effect modification versus interaction”, Fundamentals of Epidemiology, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, and Fall 2019
- “Observational studies of medical interventions”, Interpretation and Application of Epidemiology, Spring 2013, Spring 2014, Spring 2015

- “A graphical representation of causal effects” and “Assessing for confounding bias”, Intermediate Methods in Epidemiologic Research, Spring 2012
- “Random error and statistical testing”, Critical Epidemiology, Fall 2011

Guest Instructor, Department of Health Services, Policy, and Practice, Brown University School of Public Health

- “Introduction to causal inference methods”, Analysis of Population Based Datasets, Spring 2015

Small Group Leader, Department of Biostatistics, Brown University School of Public Health

- Biostatistics and Applied Data Analysis I and II, Fall 2011 to Spring 2014

Guest Instructor or Discussant, Department of Epidemiology and Biostatistics, Drexel University School of Public Health

- Proposal Writing Seminar, 10/30/2020
- “Marginal structural models: an introduction,” Challenges to Causal Inference Research, Spring 2011
- “Marginal structural models to estimate the effect of alcohol consumption on HIV acquisition,” Challenges to Causal Inference Research, Spring 2011

Guest Instructor, Department of Epidemiology, Gillings School of Global Public Health

- “Selection bias in cohort studies: sources, methods, and challenges,” Epidemiologic Analysis of Time-to-event Data, Spring 2010 and Spring 2011
- “Effect Decomposition,” Readings in Epidemiologic Modeling, Fall 2010

Advising and Mentoring

Postdoctoral or Junior Faculty Mentor

- Shilo McBurney, Assistant Professor, Department of Epidemiology, Brown University School of Public Health, Mentored: July 18, 2023 to Present
- Natasha Sokol, Assistant Professor, Department of Psychiatry and Human Behavior, Brown University Warren Alpert Medical School, K01 Mentored: April 1, 2022 to Present
- Jee Won Park, Postdoctoral Research Associate, Department of Epidemiology, Brown University School of Public Health, Mentored: July 29, 2019 to August 15, 2022

Dissertation Committee

- Member
 - Joe Silva, PhD Student (Degree Expected 2024), Department of Health Services, Policy & Practice, Brown University School of Public Health, Fall 2022 to Present
 - Shayla Nolen, PhD Student (Degree Expected 2024), Department of Epidemiology, Brown University School of Public Health, Spring 2020 to Present
 - Sina Noshad, PhD Student (Degree Received 2020), Department of Epidemiology, Brown University School of Public Health, Spring 2019 to Fall 2020

Oral Qualifying Exam Committee

- Nina Joyce, PhD Student (Degree Received 2015), Department of Epidemiology, Brown University School of Public Health, Exam Date: 5/9/2014

Masters Thesis Advisor

- Janelle Barnett, MPH Student (Degree Expected 2025), Epidemiology Concentration, Brown University School of Public Health, Advised: Spring 2024 to Present
- Nicholle Igbinyemi, MPH Student (Degree Received 2023), Epidemiology Concentration, Brown University School of Public Health, Advised: Fall 2021 to Fall 2022
- Andrew Cressman, ScM Student (Degree Received 2018), Department of Epidemiology, Brown University School of Public Health, Advised: Spring 2017 to Spring 2018
- Tina Gao, MPH Student (Degree Received 2016), Brown University School of Public Health, Advised: Spring 2015 to Spring 2016
- Andrew Zullo, ScM Student (Degree Received 2015), Department of Epidemiology, Brown University School of Public Health, Advised: Spring 2015

Masters Thesis Reader

- Evon Okidi, ScM Student (Degree Received 2014), Department of Biostatistics, Brown University School of Public Health, Served as Reader: Spring 2014 to Fall 2014

Undergraduate Honors Thesis Advisor

- Hayley Siegel, Public Health Concentrator (Degree Received 2017), Brown University, Advised: Fall 2016 to Spring 2017

Academic Advisor

- Ralph Welwean, PhD Student (Degree Expected 2025), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2021 to Present
- Rachel Gaither, PhD Student (Degree Expected 2024), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2020 to Present
- Olivia Sison, ScM Student (Degree Received 2021), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2019 to Spring 2021
- Rachel Yorlets, PhD Student (Degree Expected 2023), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2019
- Francisco Marquez, ScM Student (Degree Received 2020), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2018 to Spring 2020
- Hongseok Kim, PhD Student (Degree Received 2021), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2016 to Spring 2021
- Andrew Cressman, ScM Student (Degree Received 2018), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2016 to Spring 2018
- Shannon Holly, ScM Student, Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2015 to Fall 2016
- Francesca Beaudoin, PhD Student (Degree Received 2017), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2013 to Fall 2015
- Ida Sahlu, PhD Student (Degree Received 2017), Department of Epidemiology, Brown University School of Public Health, Advised: Fall 2012 to Fall 2017