

## Jessie K. Edwards

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ACADEMIC APPOINTMENTS	<b>Research Assistant Professor</b> Department of Epidemiology University of North Carolina at Chapel Hill  <b>Postdoctoral Research Associate</b> Department of Epidemiology University of North Carolina at Chapel Hill	2015 to present  2013 to 2015
EDUCATION	<b>PhD, Epidemiology</b> University of North Carolina at Chapel Hill  <b>MSPH, Epidemiology</b> University of North Carolina at Chapel Hill  <b>BS, International Affairs</b> Georgia Institute of Technology	2013  2010  2007
AWARDS	Berton H. Kaplan Student Publication Award University of North Carolina at Chapel Hill  Sidney Kark Award for Distinguished Teaching Assistant University of North Carolina at Chapel Hill  Delta Omega Public Health Honor Society, Theta Chapter  Society for Epidemiologic Research Student Poster Award  Travel Award UNC Gillings School of Global Public Health  Graduate Merit Assistantship UNC Gillings School of Global Public Health  President's Undergraduate Research Award Georgia Institute of Technology  President's Scholarship Georgia Institute of Technology	2013  2013  2013  2012  2010  2008–2009  2005–2007  2003–2007
PEER-REVIEWED PUBLICATIONS	[1] <b>Edwards JK</b> , Cole SR, Lesko CR, Mathews WC, Moore RD, Mugavero MJ, Westreich D. Estimating population intervention effects with inverse probability weights. <i>American Journal of Epidemiology</i> . 2016 <i>In press</i> .	

- [2] Cole SR, Chu H, Brookhart MA, **Edwards JK**. Dogmatists cannot learn. *Epidemiology*. 2016 *In press*.
- [3] Westreich D, **Edwards JK**, Rogowski ET, Hudgens MG, Stuart EA, Cole SR. Causal impact: Epidemiological approaches for a public health of consequence. *American Journal of Public Health*. 2016; 106(6), 1011-1012
- [4] Cole SR, Hudgens MG, **Edwards JK**. A fundamental equivalence between randomized experiments and observational studies. *Epidemiologic Methods*. 2016 *In press*.
- [5] **Edwards JK**, Cole SR, Westreich D, Mugavero MJ, Eron JJ, Moore RD, Mathews WC, Hunt P, Williams C. Age at entry into care, timing of antiretroviral therapy initiation, and 10-year mortality among HIV-seropositive adults in the United States. *Clinical Infectious Diseases*. 2015; 61(7), 1189-1195. *With commentary:* Walensky RP, Hirsch MS. Age-Old Questions: When to Start Antiretroviral Therapy and in Whom? *Clinical Infectious Diseases*. 2015; 61(17), 1196-1198.
- [6] Westreich D, **Edwards JK**, Cole SR, Platt RW, Mumford SL, Schisterman EF. Imputation approaches for potential outcomes in causal inference. *International Journal of Epidemiology*. 2015; 44(5), 1731-1737
- [7] Westreich D, **Edwards JK**. Every good randomization deserves observation. *American Journal of Epidemiology*. 2015; 182(10), 857-860
- [8] **Edwards JK**, Cole SR, Martin J, Moore R, Mathews WC, Kitahata M, Eron J, Saag M, Mugavero MJ. Dynamic visual display of treatment response in HIV-infected adults. *Clinical Infectious Diseases*. 2015; 61(1), e1-e4.
- [9] **Edwards JK**, Cole SR, Westreich D, Crane H, Eron J, Mathews WC, Moore R, Stephen BL, Lesko CR, Mugavero MJ. Multiple imputation to account for measurement error in marginal structural models. *Epidemiology* 2015; 26(5), 645-652 *With commentary:* Sullivan PS, Rosenberg ES. Commentary: Breaking Bias: Improved Methods for Analyzing HIV/AIDS Data. *Epidemiology*. 2015;26(5):625-7
- [10] **Edwards JK**, Cole SR, Westreich D. All your data are always missing: incorporating bias due to measurement error into the potential outcomes framework. *International Journal of Epidemiology*. 2015; 44(4), 1452-1459.
- [11] Lesko CR, Cole SR, Miller WC, Westreich D, Eron JJ, Adimora AA, Moore RD, Mathews WC, Martin JN, Drozd DR, Kitahata MM, **Edwards JK**, Mugavero MJ. Ten-year survival by race/ethnicity and sex among treated, HIV-infected adults in the United States. *Clinical Infectious Diseases*. 2015; 60(11), 1700-1707
- [12] Figueroa JP, Cooper CJ, **Edwards JK**, Byfield L, Eastman S, Hobbs M, Weir SS. Understanding the high prevalence of HIV and other sexually transmitted infections among socio-economically vulnerable men who have sex with men in Jamaica. *PLOS ONE*. 2015; 10(2), e0117686
- [13] Butler AM, Olshan AF, Kshirsagar AV, Wang L, **Edwards JK**, Nielsen ME, Wheeler SB, Brookhart, MA. Cancer incidence among U.S. Medicare end-stage renal disease patients on hemodialysis, 1996-2009. *American Journal of Kidney Diseases*. 2015; 65(5), 763-772

- [14] **Edwards JK**, Cole SR, Adimora A, Fine J, Martin J, Eron J. Illustration of a measure to combine viral suppression and viral rebound in studies of HIV therapy. *Journal of AIDS*. 2015; 68(2), 241-244
- [15] Buckley JP, Keil A, McGrath LJ, **Edwards JK**. Evolving methods for inference in the presence of the healthy-worker survivor bias. *Epidemiology*. 2015; 26(2): 204-212. *With commentary:* Picciotto S, Hertz-Picciotto I. Commentary: Healthy Worker Survivor Bias: A Still-Evolving Concept. *Epidemiology*. 2015;26(2):213-5.
- [16] **Edwards JK**, McGrath L, Buckley JP, Schubauer-Berigan MK, Cole SR, Richardson DB. Occupational radon exposure and lung cancer mortality: estimating intervention effects using the parametric g-formula. *Epidemiology*. 2014; 25(6), 829-834
- [17] Keil AP, **Edwards JK**, Richardson DB, Naimi AI, Cole SR. The parametric G-formula for time-to-event data: towards intuition with a worked example. *Epidemiology*. 2014; 25(6), 889-897. *With commentary:* Petersen ML. Commentary: Applying a causal road map in settings with time-dependent confounding. *Epidemiology (Cambridge, Mass.)*. 2014;25(6):898-901.
- [18] **Edwards JK**, Cole SR, Westreich D, Moore R, Mathews WC, Geng E, Eron JJ, Mugavero MJ. Loss to clinic and five-year mortality among HIV-infected antiretroviral therapy initiators. *PLOS ONE*. 2014; 9(7):e102305
- [19] **Edwards JK**, Cole SR, Chu H, Olshan AF, Richardson DB. Accounting for outcome misclassification in estimates of the effect of occupational asbestos exposure on lung cancer death. *American Journal of Epidemiology*. 2014;179(5):641-7
- [20] Weir SS, Figueroa JP, Byfield LL, Scott MA, Hobbs MM, **Edwards JK**, Duncan JP. "Do you think your main partner has other sex partners?" A simple question provides insight into sexual risk in Jamaica. *International Journal of STDs and AIDS*. 2014; 26(1): 37-41
- [21] **Edwards JK**, Cole SR, Troester MA, Richardson DB. Accounting for Misclassified Outcomes in Binary Regression Models Using Multiple Imputation With Internal Validation Data. *American Journal of Epidemiology*. 2013;177(9):904-912
- [22] Weir SS, Li J, **Edwards JK**, Gandhi AD, Yingying H, Suchindran CM, Chen X. Exploring Venue-Associated Risk: A Comparison of Multiple Partnerships and Syphilis Infection Among Women Working at Entertainment and Service Venues. *AIDS and Behavior*. 2013; 18(2), 153-160
- [23] Weir SS, Merli MG, Li J, Gandhi AD, Neely WW, **Edwards JK**, Suchindran CM, Henderson GE, Chen X. A comparison of respondent-driven and venue-based sampling of female sex workers in Liuzhou, China. *Sexually Transmitted Infections* 2012; 88 (Suppl 2), i95-i101
- [24] Pettaway CA, Lamerato LE, Eaddy MT, **Edwards JK**, Hogue SL, Crane MM. Benign prostatic hyperplasia: racial differences in treatment patterns and prostate cancer prevalence. *BJU International*, 2011; 108(8), 1302-308
- [25] Denslow SA, **Edwards JK**, Horney J, Peñas R, Morgan D. The effect of water and sanitation infrastructure on the prevalence of diarrheal disease in rural Nicaragua. *BMC International Health and Human Rights* 2010; 10(1), 30

INVITED PRESENTATIONS

Measurement error and causal inference: Incorporating measurement error into the potential outcomes framework  
Workshop on Measurement Error and Complex Data, College Station, TX  
22 April 2016

Estimating risk functions for cause-specific mortality when cause of death may be misclassified  
International Workshop on HIV Observational Databases, Budapest, Hungary  
8 April 2016

Quantitative methods to extrapolate size estimates: a geographic approach  
Strategic information for key populations technical consultation, UNAIDS, Geneva, Switzerland  
9 March 2016

Benefits of unique identifiers for studying the HIV care and treatment cascade  
Strategic information for key populations technical consultation, UNAIDS, Geneva, Switzerland  
8 March 2016

Age at entry into care, timing of antiretroviral therapy initiation, and 10-year mortality among HIV-seropositive adults in the United States.  
International Workshop on HIV Observational Databases, Catania, Sicily  
27 March 2015

Missing data in epidemiologic analyses  
UNC Annual Epidemiologic Methods Workshop  
10 October 2014

Estimating effects of interventions  
Society for Epidemiologic Research, Seattle, WA  
27 June 2014

Loss to follow-up and mortality among US HIV-infected antiretroviral therapy initiators  
Society for Epidemiologic Research, Seattle, WA  
26 June 2014

Missing data and causal inference  
Causal inference research group, University of North Carolina, Chapel Hill  
7 February 2014

Incorporating retention in care into estimates from observational HIV cohort studies: implications for evaluation and inference  
Biostatistics seminar, University of California, Berkeley, School of Public Health  
13 November 2013

Methods to account for misclassification of cause-specific mortality  
Society for Epidemiologic Research, Boston, MA  
21 June 2013

Comparison of three causal models to control time-varying confounding in a cohort of bone marrow transplant recipients  
Causal inference research group, University of North Carolina, Chapel Hill  
7 September 2012

## GRANTS

*Current*

UNC CFAR Developmental Award

(J. Edwards, PI)

11/1/2015 - 10/31/2016 \$30,000

*Examining causes of death among patients with HIV in the United States*

To present critical information on trends in causes of death among patients with HIV in the United States.

*Completed*

New Aid Foundation Grant for the study of neglected tropical diseases.

(J. Edwards, PI)

7/1/2010 - 7/1/2011 \$4000

*t. cruzi infection and cognitive development in primary school children in rural Nicaragua*

To provide information to local public health leaders on the prevalence of Chagas disease among children in rural Nicaragua and to assess the extent to which Chagas disease affects cognitive development.

## TEACHING

*University of North Carolina at Chapel Hill*

Instructor

Fall 2012

SAS programming and data management

Guest lecturer

Spring 2016

Epidemiologic analysis of time-to-event data

Fall 2015

Fundamentals of Epidemiology

Spring 2015

Epidemiologic analysis of time-to-event data

Spring 2014

Epidemiologic analysis of time-to-event data

Fall 2013

Epidemiologic analysis of binary data

Spring 2013

Epidemiologic analysis of time-to-event data

Spring 2012

Epidemiologic analysis of time-to-event data

Fall 2011

SAS programming and data management

Teaching assistant

Spring 2013

Epidemiologic analysis of time-to-event data

Spring 2012

Epidemiologic analysis of time-to-event data

Spring 2011

Quantitative methods in Epidemiology

Fall 2009

Fundamentals of Epidemiology

*Short courses*

January 2016: Instructor, Priorities for local AIDS control efforts workshop, Cape Town, South Africa

ACADEMIC  
SERVICE

Coordinator, Causal inference research group, University of North Carolina, Chapel Hill, 2013–2015

Coordinator, Infectious disease epidemiology journal club, University of North Carolina, Chapel Hill, 2009–2010

Reviewer for

*American Journal of Epidemiology*  
*Epidemiology*  
*Biometrics*  
*Statistics in Medicine*  
*Annals of Applied Statistics*  
*Epidemiologic Methods*  
*Journal of Acquired Immune Deficiency Syndromes*  
*Pharmacoepidemiology and Drug Safety*  
*Journal of Clinical Epidemiology*  
*Annals of Epidemiology*  
*Occupational and Environmental Medicine*  
*Antiviral Therapy*  
*Computational and Mathematical Methods in Medicine*  
*Plos ONE*  
*Scientific Reports*  
*Environmental Health Perspectives*

Society for Epidemiologic Research:

*Member*, 2009–Present.  
*Publication Committee*, 2015–present  
*Symposium session chair*  
2016 - "Meeting in the middle: systems science and causal inference"  
2015 - "Bayesian methods and causal inference"  
2014 - "Selection bias due to loss: An old and often ignored problem revisited"  
2013 - "Recording nature's answers: Measurement bias in epidemiology"

Sidney Kark Distinguished Teaching Assistant Award Committee, 2015