Jessie K. Edwards

CONTACT INFORMATION

Department of Epidemiology
University of North Carolina at Chapel Hill
2101 McGavran-Greenberg Hall CB 7435
Chapel Hill, NC 27599 USA

Mobile: +1 404.545.5667
E-mail: jessedwards@unc.edu

ACADEMIC APPOINTMENTS

Research Assistant Professor — 2015 to present
Department of Epidemiology
University of North Carolina at Chapel Hill

Postdoctoral Research Associate — 2013 to 2015
Department of Epidemiology
University of North Carolina at Chapel Hill

EDUCATION

PhD, Epidemiology — 2013
University of North Carolina at Chapel Hill

MSPH, Epidemiology — 2010
University of North Carolina at Chapel Hill

BS, International Affairs — 2007
Georgia Institute of Technology

AWARDS

Berton H. Kaplan Student Publication Award — 2013
University of North Carolina at Chapel Hill

Sidney Kark Award for Distinguished Teaching Assistant — 2013
University of North Carolina at Chapel Hill

Delta Omega Public Health Honor Society, Theta Chapter — 2013

Society for Epidemiologic Research Student Poster Award — 2012

Travel Award — 2010
UNC Gillings School of Global Public Health

Graduate Merit Assistantship — 2008–2009
UNC Gillings School of Global Public Health

President's Undergraduate Research Award — 2005–2007
Georgia Institute of Technology

President's Scholarship — 2003–2007
Georgia Institute of Technology

PEER-REVIEWED PUBLICATIONS

[1] **Edwards JK**, Hileman S, Donastorg Y, Zadrozny S, Baral S, Hargreaves J, Fearon E, Zhao J, Datta A, Weir S. Estimating sizes of key populations at the national level: considerations for study design and analysis. Epidemiology. 2018; *In press.*

[2] Stoner MCD, Nguyen N, Kilburn K, Gomez-Olive FX, **Edwards JK**, Selin A, Hughes JP, Agyei Y, MacPhail C, Kahn K, Pettifor A. Age-disparate partnerships and incident HIV infectionin adolescent girls and young women in rural South Africa: an HPTN 068 analysis. AIDS. 2018; *In press.*

[3] **Edwards JK**, Cole SR, Moore RD, Mathews WC, Kitahata M, Eron JJ. Sensitivity analyses for misclassification of cause of death in the parametric g-formula. American Journal of Epidemiology. 2018; *In press.*

[4] Keil AP and **Edwards JK**. A review of time scale fundamentals in the g-formula and insidious selection bias. Current Epidemiology Reports. 2018; *In press.*

[5] Herce M, Miller W, Bula A, **Edwards JK**, Sapalalo P, Lancaster K, Mofolo I, Mendes Furtado M, Weir S. Achieving the first 90 for key populations in sub-Saharan Africa through venue-based outreach: Challenges and opportunities for HIV prevention based on PLACE study findings from Malawi and Angola. Journal of the International Aids Society. 2018; *In press.*

[6] Stoner MCD, **Edwards JK**, Miller WC, Aiello AE, Halpern CT, Julien A, Rucinski KB, Selin A, Twine R, Hughes JP, Wang J, Agyei Y, Gomez-Olive FX, Wagner RG, Laeyendecker O, MacPhail C, Kahn K, Pettifor A. Does partner selection mediate the relationship between school attendance and HIV/HSV-2 among adolescent girls and young women in South Africa: An analysis of HPTN 068 data. JAIDS. 2018; *In press.*

[7] Keil AP and **Edwards JK**. You are smarter than you think: (super) machine learning in context. European Journal of Epidemiology. 2018; *In press.*

[8] Bengtson AM, Pence BW, Eaton EF, **Edwards JK**, Eron JJ, Mathews WC, Mollan K, Moore RD, O'Cleirigh C, Geng E, Mugavero MJ. Patterns of Efavirenz Use as First Line Antiretroviral Therapy in the United States: 1999-2015. Antiviral Therapy. 2018; *In press.*

[9] **Edwards JK**, Cole SR, Hall HI, Mathews WC, Moore RD, Mugavero MJ, Eron JJ. Virologic suppression and CD4 cell count recovery after initiation of raltegravir- or efavirenz- containing HIV treatment regimens. AIDS. 2018; 32(2): 261-266

[10] Keil AP, Mooney S, Jonsson Funk M, Cole SR, **Edwards JK**, Westreich D. Resolving an apparent paradox in double-robust estimators. American Journal of Epidemiology. 2018; 187(4): 891-892

[11] Rudolph JE, Cole SR, **Edwards JK**, Moore R, O'Cleirigh C, Mathews WC, Christopoulos K. At-risk alcohol use among HIV-positive patients and completion of patient-reported outcomes. AIDS and Behavior. 2018; 22(4): 1313-1322

[12] Weir S, Baral SD, **Edwards JK**, Zadrozny S, Hargreaves J, Zhao J, Sabin K. HIV Surveillance of Key Populations: Opportunities for Enhanced Strategic Use of Surveys, Health Records, and Program Data. JMIR Public Health and Surveillance. 2018; *In press.*

[13] Cole SR, **Edwards JK**, Westreich D, Lesko CR, Lau B, Mugavero MJ, Mathews WC, Eron JJ, Greenland S. Estimating multiple time-fixed treatment effects using a semi-Bayes semiparametric marginal structural Cox proportional hazards regression model. Biometrical Journal. 2018; 60(1): 100-114

[14] Lesko CR, **Edwards JK**, Cole SR, Moore RD, Lau B. When to censor? American Journal of Epidemiology. 2018; 187(1): 623-632

[15] Kilburn K, Pettifor A, **Edwards JK**, Selin A, Delong S, Twine R, Hughes J, Wang J, Gomez-Olive X, Macphail C, and Kahn K. Conditional cash transfers and the reduction of partner violence for young women: An investigation of causal pathways using evidence from a randomized experiment in South Africa (HPTN 068). Journal of the International AIDS Society. 2018; 21(S1), e25043

[16] Hong J, Funk MJ, LoCasale R, Dempster S, Cole SR, Webster-Clark M, **Edwards JK**, Stürmer T. Generalizing randomized clinical trial results: Implementation and challenges related to missing data in the target population. American Journal of Epidemiology. 2018; 187(4): 817-827

[17] Stoner MCD, **Edwards JK**, Miller WC, Aiello AE, Halpern CT, Julien A, Selin A, Hughes JP, Wang J, Gomez-Olive FX, Wagner RG, MacPhail C, Kahn K, Pettifor A. The effect of schooling on age-disparate relationships and number of sexual partners among young women in rural South Africa enrolled in HPTN 068. AIDS. 2017; 76(5): e107-e114

[18] **Edwards JK**, Lesko CR, Keil AP. Causal inference through space and time: quixotic quest, worthy goal, or both? American Journal of Epidemiology. 2017; 186 (2), p143-145

[19] Lesko CR, Todd JV, Cole SR, Edmonds A, Pence BW, **Edwards JK**, Mack WJ, Bacchetti P, Rubtsova A, Gange SJ, Adimora, AA. Mortality under plausible interventions on antiretroviral treatment and depression in HIV-infected women: an application of the parametric g-formula. Annals of Epidemiology. 2017; 27(12): 783-789

[20] Rao A, Stahlman S, Hargreaves J, Weir S, **Edwards JK**, Rice B, Kochelani D, Mavimbela M, Baral S. Sampling Key Populations for HIV Surveillance: Results from Eight Cross-Sectional Studies using Respondent-Driven Sampling and Venue-Based Snowball Sampling. JMIR Public Health and Surveillance. 2017; 3(4)

[21] Bengtson AM, Pence BW, Moore RD, O'Cleirigh C, Eaton EF, **Edwards JK**, Eron JJ, Kitahata MM, Mathews WC, Mollan K, Mugavero MJ. The relationship between efavirenz as initial antiretroviral therapy and suicidal thoughts among HIV-infected adults in routine care. JAIDS. 2017; 76(4): 402-408

[22] Stoner MC, Pettifor A, **Edwards JK**, Aiello AE, Halpern CT, Julien A, Selin A, Twine R, Hughes JP, Wang J, Agyei Y, Gomez-Olive FX, Wagner RG, Macphail C, Kahn K. The effect of school attendance and school dropout on incident HIV and HSV-2 among young women in rural South Africa enrolled in HPTN 068. AIDS. 2017; 31(15): 2127-2134

[23] Fatukasi T, Cole SR, Moore RD, Mathews WC, **Edwards JK**, Eron JJ. Risk factors for delayed antiretroviral therapy initiation among HIV-seropositive patients. PLoS ONE. 2017; 12 (7), e0180843

[24] Keil AP, Daza EJ, Engle SM, Buckley JP, **Edwards JK**. A Bayesian approach to the g-formula. Statistical Methods in Medical Research. 2017; *In press.*

[25] **Edwards JK**, Keil AP. Measurement error and environmental epidemiology: a policy perspective. Current Environmental Health Reports. 2017; 4(1), 79-88

[26] Cole SR, **Edwards JK**, Hall HI, Brookhart MA, Mathews WC, Moore RD, Crane HM, Kitahata MM, Mugavero MJ, Saag MS, Eron JJ. Incident AIDS or death after initiation of HIV treatment regimens including raltegravir or efavirenz among adults in the United States. Clinical Infectious Diseases. 2017; 64 (11), 1591-1596

[27] Westreich D, **Edwards JK**, Lesko CR, Stuart E, Cole SR. Transportability of trial results using inverse odds of sampling weights. American Journal of Epidemiology. 2017; 186(8): 1010-1014

[28] Lesko CR, Buchanan AL, Westreich D, **Edwards JK**, Hudgens MG, Cole SR. Generalizing study results: a potential outcomes perspective. Epidemiology. 2017; 28(4), 553-561

[29] Cole SR, Chu H, Brookhart MA, **Edwards JK**. Dogmatists cannot learn. Epidemiology. 2017; 28(2), e10-e11

[30] **Edwards JK**, Hester L, Gokhale M, Lesko CR. Methodologic issues when estimating risks in pharmacoepidemiology. Current Epidemiology Reports. 2016; 3(4), 285-296

[31] **Edwards JK**, Cole SR, Lesko CR, Mathews WC, Moore RD, Mugavero MJ, Westreich D. Illustration of inverse probability weighting to estimate policy-relevant causal effects. American Journal of Epidemiology. 2016;184(4), 336-344

[32] Lesko CR, **Edwards JK**, Moore RD, Lau B. A longitudinal, HIV care continuum: 10-year restricted mean time in each care continuum stage after enrollment in care, by history of injection drug use. AIDS. 2016;20(14), 2227-2234

[33] 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

[34] Cole SR, Hudgens MG, **Edwards JK**. A fundamental equivalence between randomized experiments and observational studies. Epidemiologic Methods. 2016; 5(1), 113-117

[35] **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.

[36] 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

[37] Westreich D, **Edwards JK**. Every good randomization deserves observation. American Journal of Epidemiology. 2015; 182(10), 857-860

[38] **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.

[39] **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. Breaking Bias: Improved Methods for Analyzing HIV/AIDS Data. Epidemiology. 2015;26(5):625-7

[40] **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.

[41] 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

[42] 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

[43] 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

[44] **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

[45] 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.

[46] **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

[47] 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.

[48] **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

[49] **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

[50] 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

[51] **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

[52] 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

[53] 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

[54] 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

[55] 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

Letters and Book Chapters

[1] Lesko CR, Buchanan, AL, Westreich D, **Edwards JK**, Hudgens MG, Cole SR. Re: Generalizing study results: a potential outcomes perspective. The authors respond. Epidemiology. 2018; 29(2), e14-e15

[2] Cole SR, Chu H, Brookhart MA, **Edwards JK**. Re: Dogmatists cannot learn. The authors respond. Epidemiology. 2017; 28(6), e62-e63

[3] Keil A, **Edwards JK**. Bias in environmental epidemiology. In: Encyclopedia of Environmental Health, 2e. 2017; *In press.*

Invited presentations

[1] *An imputation approach to account for measurement error in marginal structural models*, International Biometric Society Eastern North American Regional Meeting, Atlanta, GA, 27 March 2018

[2] *Integrating data from key population surveys into surveillance efforts*, Measurement and Surveillance of HIV Epidemics Scientific Symposium, Johannesburg, South Africa, 7 December 2017

[3] *Estimating sizes of key populations as a missing data problem*, UNAIDS Reference Group Meeting, London, United Kingdom, 19 October 2017

[4] *A randomized trial of data adaptive doubly robust estimators versus standard practice*, Society for Epidemiologic Research Annual Meeting, Seattle, WA, 22 June 2017

[5] *A method to compare viral suppression over time in observational studies with competing events: Applied example to estimate the comparative effectiveness of raltegravir vs efavirenz*, International Workshop on HIV Observational Databases, Lisbon, Portugal, 31 March 2017

[6] *A geographic approach to extrapolating characteristics of key populations*, Population Size Estimation Technical Consultation, CDC, Atlanta, GA, 31 January 2017

[7] *Estimating the size, location and key characteristics of most-at-risk populations*, Measurement and Surveillance of HIV Epidemics Scientific Symposium, Tallinn, Estonia, 27 October 2016

[8] *Disparities in the HIV care continuum in the Dominican Republic*, Social Epidemiology Seminar, UNC, Chapel Hill, NC, 12 October 2016

[9] *Extrapolation of data from key population surveys and programs*, AIDS, Durban, South Africa, 18 July 2016

[10] *Scaling up interventions on the HIV care continuum: a practical example of meeting in the middle*, Epidemiology Congress of the Americas, Miami, FL, 24 June 2016

[11] *External validity and the transportability of internally valid effects*, Epidemiology Congress of the Americas, Miami, FL, 22 June 2016

[12] *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

[13] *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

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

[15] *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

[16] *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

[17] *Missing data in epidemiologic analyses*, UNC Annual Epidemiologic Methods Workshop,10 October 2014

[18] *Estimating effects of interventions*, Society for Epidemiologic Research, Seattle, WA, 27 June 2014

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

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

[21] *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

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

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

Teaching

University of North Carolina at Chapel Hill

Instructor

Spring 2018	Epidemiologic Analysis of Time-To-Event Data
Fall 2012	SAS Programming and Data Management

Guest lecturer

Spring 2012–2017	Epidemiologic Analysis of Time-To-Event Data
Fall 2015–2016	Fundamentals of Epidemiology
Fall 2013	Epidemiologic Analysis of Binary Data
Fall 2011	SAS Programming and Data Management

Teaching assistant

Spring 2012–2013	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

Funding

Pending

NIH/NIAID R21 (PI: J. Edwards)
01/01/2019 – 12/31/2021 $275,000
Evaluation of intervention portfolios in HIV cohorts using new two-stage study designs
The goal of this work is to develop and illustrate novel two-stage parametric g-computation methods to quantify impacts of comprehensive intervention portfolios in observational HIV cohorts when exposure to candidate interventions is incompletely measured. Results from this work will provide investigators with tools to leverage fragmented real world data to answer important public health care delivery questions among HIV-positive populations and guide clinical decision making.

Current

NIH/NIAID K01AI125087 (PI: J. Edwards)
12/15/2016 – 12/14/2021 $658,028
Comparative effectiveness of tailored HIV treatment plans and mortality
The overall goal of this K01 application is to optimize clinical care decisions for people living with HIV. Specifically, this project will explore how antiretroviral therapy regimens affect cause-specific mortality and how treatment plans can be tailored or personalized based on patient characteristics to improve survival.

USAID AID-OAA-L-14-00004 (PI: J. Thomas)
Monitoring and Evaluation to Assess and Use Results (MEASURE) Evaluation Phase IV Project

- *Effect of mobility on treatment outcomes among mobile populations infected with HIV and TB in East Africa Cross-Border Regions*
  (Activity Lead: J. Edwards)
  01/01/2018 – 6/31/2019 $1,000,000 (total)
  To estimate the impact of mobility on TB and HIV treatment outcomes among mobile and vulnerable populations coinfected with TB and HIV in East Africa cross brorder regions.

Completed

UNC CFAR Developmental Award (PI: J. Edwards)
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.

NIH/NIAID R01AI100654 (PI: S. Cole)
03/19/2013 – 02/28/2017 $1,000,000 (direct, all years)
Structural models for treatment and exposure effects in clinical HIV cohorts
The overall goal of this proposed research is to develop, apply and disseminate advanced, yet practical quantitative methods to enable accurate inference from complex longitudinal data on individuals infected with HIV.

NIH/NIAID DP2HD084070 (PI: D. Westreich)
09/15/2014 – 08/31/2019 $1,500,000 (direct, all years)
From patients to policy: innovative epidemiology for implementation science
To innovate and extend epidemiologic methods to create usable tools for translating scientific results of typical studies into public health policy.

USAID AID-OAA-L-14-00004 (PI: J. Thomas)
07/01/2014 – 06/28/2017 $12,102,280 (total)
Monitoring and Evaluation to Assess and Use Results (MEASURE) Evaluation Phase IV Project

- *Impact evaluation of the Cross Border Health Integrated Partnership Project*
  (Activity Lead: J. Edwards)
  06/01/2015 – 12/31/2016 $1,871,000 (total)
  To estimate the impact of the cross border health integrated partnership project, a multifaceted structural intervention implemented in 10 cross border sites in 5 countries in East Africa
- *Phylogenetic analysis of HIV infections in cross border sites in East Africa*
  (Activity Lead: J. Edwards)
  08/01/2016 – 05/01/2017 $790,000 (total)
  To identify and describe HIV transmission clusters occurring among key populations in cross border sites in East Africa and to describe patterns of resistance to antiretroviral medications in these populations.
- *Estimation of the sizes of key populations in the Dominican Republic*
  (Activity Lead: S. Hileman)
  08/01/2016 – 12/31/2017
  To estimate the sizes of key populations in the Dominican Republic, including female sex workers, men who have sex with men, and transgender people.

Gates Foundation PHSEZE81 (PI: S. Weir)
01/01/15 – 06/30/17 $711,007 (total, current year)
MESH Consortium: Key Populations Working Group
The unique contribution of the consortium will be to maximize the potential of data routinely collected through HIV surveillance and service delivery platforms to provide timely information on key outcomes in relevant populations at a level appropriate to support resource allocation and realignment.

FHI 100303/W0936 (PI: S. Weir)
07/03/2014 – 03/10/2017 $812,030 (total, current year)
Linkages across the continuum of HIV services for key populations affected by HIV

- *Improving estimates related to the HIV care continuum in the Dominican Republic* (Activity Lead: J. Edwards)
  10/01/2015 – 12/31/2016 $300,000 (total)
  To improve estimates of virologic suppression for sex workers and men who have sex with men in care for HIV in the Dominican Republic

New Aid Foundation Grant for the study of neglected tropical diseases. (PI: J .Edwards)
7/1/2010 - 7/1/2011 $4000 (total)
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.

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

Associate editor for *BMC Infectious Diseases*

Reviewer for

American Journal of Epidemiology
Epidemiology
Biometrics
Statistics in Medicine
Annals of Applied Statistics
Journal of Causal Inference
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
Lifetime Data Analysis
Plos ONE
Scientific Reports

Environmental Health Perspectives
Paediatric and Perinatal Epidemiology

Society for Epidemiologic Research:

Member, 2009–Present.
Publication Committee, 2015–present
Symposium session chair
2018 - "Epidemiologic research with incomplete and imperfect data: making progress in the face of uncertainty" (accepted)
2017 - "Putting the 'Implementation' back into Implementation Science: Moving beyond the 'Implications' of Epidemiologic Research"
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

Masters thesis committees

Grace Mulholland, Epidemiology, UNC, 2016
Jackie Rudolph, Epidemiology, UNC, 2016

Doctoral thesis committees

Completed

Marie Stoner, Epidemiology, UNC, 2017: "The influence of school attendance on partner selection and sexually transmitted infections among young South African women"
Bradley Saul, Biostatistics, UNC, 2017: "Applications of and Tools for Causal Inference"
Marie-Josephe Horner, Epidemiology, UNC, 2018: "Cancer Burden Among HIV-Infected Individuals On Antiretroviral Therapy In Malawi: A Record Linkage Study"

In progress

Lisa Albert, Epidemiology, UNC
Terra Mack, Epidemiology, UNC
Jackie Rudolph, Epidemiology, UNC
Grace Mulholland, Epidemiology, UNC
Tiffany Breger, Epidemiology, UNC
Michael Webster-Clark, Epidemiology, UNC