

CURRICULUM VITAE
(updated on October 20, 2024)

Bryan E. Shepherd

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Education

Brigham Young University, Provo, UT

B.S. in Statistics, 1999

University Honors and Magna Cum Laude

Minors in Mathematics and Botany

University of Washington, Seattle, WA

M.S. in Biostatistics, 2001

Ph.D. in Biostatistics, 2005

Dissertation: “Causal Inference in HIV Vaccine Trials: Sensitivity analyses comparing outcomes only existing in a subset chosen post-randomization”

Academic Appointments

Assistant Professor, Department of Biostatistics, Vanderbilt University School of Medicine,
2005-2011

Associate Professor (with tenure), Department of Biostatistics, Vanderbilt University
School of Medicine, 2011-2017

Professor (with tenure), Department of Biostatistics, Vanderbilt University School of
Medicine, 2017-present

Vice Chair of Research, Department of Biostatistics, Vanderbilt University School of
Medicine, 2017-2019

Vice Chair of Faculty Affairs, Department of Biostatistics, Vanderbilt University School of Medicine, 2019-present

Affiliate Appointments

Visiting Scientist, Fundacion Huesped, Buenos Aires, Argentina, summer 2013

Visiting Scientist, Fred Hutchinson Cancer Research Center, Seattle, summer 2016

Visiting Scholar (Volunteer Appointment), UC San Diego, summer 2019

Vanderbilt Institute for Global Health, 2006-present

Vanderbilt Tuberculosis Center, 2013-present

Director of the Data Science Core of the Tennessee Center for AIDS Research (TN-CFAR), 2015-2024

Associate Director of the Data Science Core of the Tennessee Center for AIDS Research (TN-CFAR), 2024-present

Secondary Appointment, Vanderbilt Department of Biomedical Informatics, 2021-present

Adjunct Professor in the Department of Mathematical Sciences, Bayero University Kano, Nigeria, 2024-present

Other Employment

Computer Programmer, Department of Statistics, Brigham Young University, 1997

SAS Programmer, McBride Biostatistical Research, Morristown, NJ, summer 1998.

Teaching Assistant, Department of Statistics, Brigham Young University, 1998-1999

Research Assistant, Kenya Medical Research Institute and University of Washington, Nairobi, Kenya, summer 2000.

Teaching Assistant, Department of Biostatistics, University of Washington, 2000-2001

Research Assistant, Department of Biostatistics, University of Washington, 2002-2005

Professional Organizations

American Statistical Association

Chapter Representative, Middle Tennessee Chapter, 2006-2008

International Biometric Society

Professional Activities

Intramural

Chair of Allocation Committee, 2005-2012

Department of Biostatistics, Vanderbilt University

Member of Faculty Search Committee, 2005-present

Department of Biostatistics, Vanderbilt University

Member of Graduate Program Committee, 2008-present

Department of Biostatistics, Vanderbilt University

Member of Biostatistics Faculty Appointments and Promotions Committee, 2011-present

Department of Biostatistics, Vanderbilt University

Member of Biostatistics Promotions Committee, 2014-2018

Department of Biostatistics, Vanderbilt University

Member of Admissions Committee, 2010-2014

Department of Biostatistics, Vanderbilt University

Member of Vanderbilt Clinical and Translational Research Scholar program (VCTRS/VPSD)

Selection Committee, 2012-present

Reviewer for Vanderbilt Edge for Scholars program, 2013-present

Chair of Publication Award Committee, 2014-18

Department of Biostatistics, Vanderbilt University

Member of the Vanderbilt Biostatistics Summer Internship Program for Underrepresented Undergraduates, Department of Biostatistics, 2022-present

Member of the Vanderbilt School of Medicine Faculty Appointments and Promotions Committee, 2023-present

Extramural

Ad hoc reviewer for The Bill and Melinda Gates Foundation, 2007

Member of Technical Expert Panel, 2010

“Future Research Priorities in Clinically Localized Prostate Cancer,” Blue Cross Blue Shield Association project sponsored by Agency for Healthcare Research and Quality

Member of Scientific Organizing Committee, “Causal Inference in Health Research,”
Centre de Recherche Mathematiques, Montreal, Canada, May 9-13, 2011

Ad hoc reviewer for Wellcome Trust, 2011

Ad hoc reviewer for National Institute of Allergy and Infectious Diseases, National Institutes of Health, “Targeted Clinical Research to Address Select Viral Infections,” April 2011

Ad hoc reviewer for National Institute of Allergy and Infectious Diseases, National Institutes of Health, “Targeting Inflammation and Immune Activation in HIV Disease,” October 2012

Ad hoc reviewer for the Medical Research Council, United Kingdom, November 2013

Chair of Data Safety and Monitoring Board, “Discontinuation of trimethoprim-sulfamethoxazole prophylaxis in adults on antiretroviral therapy in Kenya: a randomized trial,” 2012-2013

Member of Data Safety and Monitoring Board, “CAPRISA 008: Open-label randomized controlled trial to assess the implementation effectiveness and safety of 1% tenofovir gel provision through family planning services in KwaZulu-Natal, South Africa,” 2012-2015

Board of Directors, Nashville Health Management Foundation, 2014-2016

Member of Data Safety and Monitoring Board, “Providing Online Counseling for Home-Based HIV Testing with MSM Couples,” 2015-2020

Ad hoc reviewer for National Institutes of Health, “National Institute of Allergy and Infectious Diseases Special Emphasis Panel: NIAID Clinical Trial Planning Grant (R34) and Clinical Trial Implementation Cooperative Agreement (U01),” January 2015

Ad hoc reviewer for National Institutes of Health, “National Institute of Allergy and Infectious Diseases Special Emphasis Panel: Investigator Initiated Clinical Trial Applications (R34) and NIAID Clinical Trial Implementation Cooperative Agreement (U01),” December 2015

Ad hoc reviewer for Medical Research Council, January 2017

Chair of Data Safety and Monitoring Board, “Mobile WACHX: Evaluation of mHealth strategies to optimize adherence and efficacy of PMTCT/ART,” 2016-2019

Ad hoc reviewer for the National Institutes of Health, AIDS Clinical Epidemiology Study Section, November 2017

Ad hoc reviewer for the Medical Research Council, United Kingdom, January 2018

Ad hoc reviewer for Washington University at St. Louis Clinical and Translational Research Funding Program: Innovative analytical methodology projects, October 2018

Ad hoc reviewer for the National Institutes of Health, Special Emphasis Panel: Member conflict: AIDS and Related Research, March 2019

Ad hoc reviewer for the Medical Research Council, United Kingdom, April 2020

External Review Team, Department of Biostatistics, Yale School of Public Health, December 2020

Ad hoc reviewer for the National Institutes of Health, Population and Public Health Approaches to HIV/AIDS Study Section, March 2021

Member of Data Safety and Monitoring Board, “Immediate Fast-Track versus Standard Care for Persons Living with HIV in Haiti: a Randomized Pilot Study,” 2018-present

Member of the Safety Monitoring Committee for the Adolescent Medicine Trials Network (ATN) for HIV/AIDS Interventions, 2019-2022.

Ad hoc reviewer for the National Institutes of Health, Fogarty HIV Research Training Program for Low- and Middle-Income Country Institutions, December 2022

Ad hoc reviewer for the National Institutes of Health, Population and Public Health Approaches to HIV/AIDS, July 2023

Chair of Data Safety and Monitoring Board, “The HIV, Adipose Tissue Immunology, and Metabolism (HATIM) Study,” 2019-present.

Co-chair of Methods Working Group, North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD), 2019-present.

Member of Data Safety Monitoring Board, HLB-SIMPLe, 2023-present.

Associate Editor for the *American Journal of Epidemiology*, 2016-present

Associate Editor for *Biometrics*, 2018-present

Have reviewed papers for the following journals

AIDS

AIDS Research and Human Retroviruses

Australian and New Zealand Journal of Statistics

American Journal of Epidemiology

American Journal of Drug and Alcohol Abuse

American Journal of Public Health

Annals of Applied Statistics

Biometrical Journal

Biometrics

Biometrika

Biostatistics

Blood

BMC Health Services Research

BMC Infectious Diseases

BMC Medical Research Methodology

Canadian Journal of Statistics

Communication in Statistics - Simulation and Computation

Contemporary Clinical Trials

Clinical Trials

Drug and Alcohol Dependence

Epidemiologic Reviews

Epidemiology

Methods of Information in Medicine

International Journal of Biostatistics

International Journal of Epidemiology

International Journal of Women's Health

International Statistical Review

Journal of Acquired Immune Deficiency Syndromes

Journal of Applied Statistics

Journal of Biopharmaceutical Statistics

Journal of Clinical and Translational Science

Journal of Clinical Epidemiology

Journal of Computational and Graphical Statistics

Journal of Infectious Diseases

Journal of Statistical Software

Journal of the American Medical Association

JAMA Oncology

Journal of the American Statistical Association

Journal of the International AIDS Society

Journal of the Royal Statistical Society, Series B

Journal of the Royal Statistical Society, Series C

Lancet HIV
Nature Communications
Pharmacoepidemiology and Drug Safety (“Best Reviewer” 2018)
PLoS Computational Biology
PLoS ONE
PLoS Medicine
Proceedings of the Royal Society B: Biological Sciences
Scandinavian Journal of Statistics
Statistical Communications in Infectious Diseases
Statistics in Medicine
Statistical Methods in Medical Research
The American Statistician
Trials

Academic Awards

Trustees Scholarship, 1993, Brigham Young University
Edwin Hinckley Scholarship, 1998, Brigham Young University
Undergraduate Research Award, 1998, Brigham Young University
Graduate Merit Award, 1999, Department of Biostatistics, University of Washington
Senior Student Award, 2005, Department of Biostatistics, University of Washington
Shayle Searle Fellow, 2016, School of Mathematics and Statistics, Victoria University of Wellington, New Zealand

Outstanding Faculty Mentor, 2016, Vanderbilt Department of Biostatistics
Canadian Journal of Statistics Award, 2016, Statistical Society of Canada
Methods Publication Award, 2016, Vanderbilt Department of Biostatistics
Methods Publication Award, 2017, Vanderbilt Department of Biostatistics
Fellow of the American Statistical Association, 2018
Methods Publication Award, 2021, Vanderbilt Department of Biostatistics
MERIT (Method to Extend Research in Time) Award, 2023, U.S. National Institutes of Health
Best Paper in *Biometrics* by an IBS Member, 2023, International Biometric Society
Methods Publication Award, 2023, Vanderbilt Department of Biostatistics

Teaching Activities

Courses

Introduction to Probability and Statistical Theory

- Fall 2011
- Fall 2012
- Fall 2013
- Fall 2014
- Fall 2015
- Fall 2016
- Fall 2017

Causal Inference

- Spring 2018
- Spring 2020
- Spring 2022
- Fall 2024

Individualized Courses for Specific Students

Advanced Methods for Epidemiology (Epidemiology 332) (Spring 2012); Lan Zhang; *Respondent Driven Sampling*

Independent Study in Biostatistics (Biostatistics 393) (Fall 2011 - Spring 2012); Nate Mercaldo; *Dynamic optimal treatment regimens applied to initiating therapy in HIV*

Advanced Methods for Epidemiology (Epidemiology 332) (Spring 2021); Cassandra Oliver; *Analysis of Cluster Data*

Research Supervision

Primary Advisor:

Valentine Wanga (Biostatistics MS 2014, took position at Institute for Health Metrics and Evaluation, Seattle, WA)

Qi Liu (Biostatistics PhD 2016, took position at Merck, Rahway, NJ)

Lingjun Fu (Biostatistics MS 2017, took position at Amazon, Seattle, WA)

Mark Giganti (Biostatistics PhD 2018, took position at Center for Biostatistics in AIDS Research, Harvard, Boston, MA)

Svetlana Eden (Biostatistics PhD, 2020, took position at Vanderbilt University Medical Center, Nashville, TN)

Sarah Lotspeich (Biostatistics PhD, 2021, took position at University of North Carolina Chapel Hill)

Yuqi Tian (Biostatistics PhD, 2022, took position at Uber, San Francisco, CA)

Shengxin Tu (Biostatistics PhD, 2024, took position at US Food and Drug Administration, Washington DC)

Julia Thome (Biostatistics PhD, 2024)

Joshua Slone (Biostatistics PhD student, 2022-present)

Jeffrey Liang (Biostatistics PhD student, 2023-present)

PhD Student Committees:

Sangsoo Park (Economics PhD 2008)

Jisong Wu (Economics PhD 2009)

Stephany Duda (Biomedical Informatics PhD 2011)

Heng Chen (Economics PhD 2012)

Lan Zhang (Epidemiology PhD 2013)

Webster Kasongo (Epidemiology PhD 2013)

Xi Huo (Mathematics PhD 2014)

Jun Tao (Epidemiology PhD 2016)

Laurie Samuels (Biostatistics PhD 2016)

Chen Zhang (Epidemiology PhD 2017)

Nate Mercaldo (Biostatistics PhD 2017)

Harold Chiang (Economics PhD 2020)

Ryan Jarrett (Biostatistics PhD 2021)

Daniel Sacks (Epidemiology PhD 2022)

Cassandra Oliver (Epidemiology PhD 2022)

Nathan James (Biostatistics PhD 2022)

Michael Williams (Biostatistics PhD 2022)

Jacqueline O'Neal (Biostatistics PhD 2022)

Elizabeth Sigworth (Biostatistics PhD 2022)

Chiara Di Gravio (Biostatistics PhD 2023)

Jamie Joseph (Biostatistics PhD 2023)

Faculty Mentoring Committees:

Pingsheng Wu (Research Assistant Professor, Department of Medicine)
Carolyn Audet (Assistant/Associate Professor, Institute for Global Health)
April Pettit (Assistant Professor, Division of Infectious Diseases)
Celestine Wanjalla (Research Fellow, Division of Infectious Diseases)
Peter Rebeiro (Assistant Professor, Division of Infectious Diseases)
James Carlucci (Assistant Professor, Pediatric Infectious Diseases)
Ran Tao (Assistant/Associate Professor, Biostatistics)
Andrew Spieker (Assistant Professor, Biostatistics)
Gustavo Amorim (Assistant Professor, Biostatistics)
Svetlana Eden (Research Assistant Professor, Biostatistics)
Qingyan Xiang (Assistant Professor, Biostatistics)

International Trainees:

Yanink Caro-Vega (Fogarty International Mentoring Program, Mexico, 2017-2021)
Lara Coelho (Fogarty International Mentoring Program, Brazil, 2017-2021)
Ibrahim Yusuf Ibrahim (Vanderbilt Nigeria Biostatistics Training Program, 2022-2023)
Abdurrahman Abdulhamid (Vanderbilt Nigeria Biostatistics Training Program, 2022-2023)
Safiya Sada (Vanderbilt Nigeria Biostatistics Training Program, 2023-2024)
Rukayya Alkassim (Vanderbilt Nigeria Biostatistics Training Program, 2023-2024)
Habebah Kakudi (Vanderbilt Nigeria Biostatistics Training Program, 2024-2025)

Undergraduate Trainees:

Joseph Sherrill (summer 2019)
Terrence Smith (Vanderbilt Biostatistics Summer Internship Program for Underrepresented Undergraduates, 2023)
Naij Taylor (Vanderbilt Biostatistics Summer Internship Program for Underrepresented Undergraduates, 2024)

Other Mentoring:

James Carlucci (Medical School Emphasis project, 2007)

Tera Howard (Medical School Emphasis project, 2008)
Diana Lemly (Medical School Emphasis project, 2008)
Keipp Talbot (Infectious Diseases Fellow, 2008-2009)
Vlada Melekhin (Infectious Diseases Fellow, 2007-2011)
Yuri Van der Heijden (Infectious Diseases Fellow, 2012-2016)

Internal Seminars, Internal Lectures, and Workshops

1. Stochastic modeling of hematopoiesis.
Department of Biostatistics, Vanderbilt University, November 9, 2005
2. An analysis problem arising in HIV vaccine trials and our proposed solution.
Infectious Disease Grand Rounds, Vanderbilt University, February 1, 2006
3. The causal effect of finasteride on the severity of prostate cancer.
Department of Biostatistics, Vanderbilt University, September 20, 2006
4. Baseline CD4 lymphocyte percentage and HIV/AIDS disease progression on therapy: the promise and problems of predictive modeling.
Vanderbilt-Meharry Center for AIDS Research Work in Progress Seminar, May 24, 2007
5. Guest lectures to Vanderbilt Master of Science in Clinical Investigation Program
Design of medical studies, September 20, 2007
Some analysis advice, September 24, 2008
6. Sensitivity analyses comparing time-to-event outcomes only existing in a subset selected post-randomization, with application to HIV vaccine trials.
Department of Economics, Vanderbilt University, Statistics Study Group Seminar Series, February 14, 2008
7. Biostatistics 101.
2nd Annual Administrative Retreat, Department of Biostatistics, Vanderbilt University, April 4, 2008
8. The cost of checking proportional hazards.
Department of Biostatistics, Vanderbilt University, April 23, 2008
9. An introduction to linear mixed effects models.
MS Continuing Education Meeting, Department of Biostatistics, Vanderbilt University, April 17 and May 1, 2008
10. Statistical methods to account for data errors discovered from an audit.
Department of Biostatistics, Vanderbilt University, July 15, 2009

11. This American Statistician's Life.
School for Math and Science at Vanderbilt, December 3, 2009
12. Test of Association between Two Ordinal Variables while Adjusting for Covariates.
Department of Mathematics, Vanderbilt University, Biomathematics Group, April 6, 2010
13. Multiple imputation strategies for handling missing data.
National Institute of Mental Health International HIV/AIDS Conference, Nashville, June 17, 2010
14. Presentations to the James Crowe Jr. Lab, Vanderbilt University
Power and sample size, September 8, 2006
T-tests and Wilcoxon rank sum tests, February 2, 2007
Power and sample size, June 21, 2007
Linear regression, December 7, 2007
Analyzing neut data, June 6, 2008
Analyzing correlated data, December 5, 2008
Sample size and power calculations, May 15, 2009
Assessing the effect of vaccination on post-infection outcomes, October 30, 2009
Statistical issues to consider in translational research, March 19, 2010
15. Ordered logistic regression.
Guest Lecture to Epidemiology Graduate Students: November 9, 2010; October 27, 2011; October 25, 2012; October 17, 2013; November 20, 2014; November 1, 2016; October 24, 2017; October 30, 2018; October 22, 2019; October 7, 2021; September 28, 2022; October 31, 2023; September 24, 2024.
16. Estimating the optimal CD4 count for HIV-infected individuals to start antiretroviral therapy.
Department of Biostatistics, Vanderbilt University, January 12, 2011
17. Estimating the optimal CD4 count for HIV-infected individuals to start antiretroviral therapy.
Vanderbilt Institute for Global Health Faculty Meeting, January 25, 2011
18. Design of Medical Studies and Some Analysis Advice.
Vanderbilt Institute for Global Health Institute in Research Development and Ethics: May 16, 2011; August 17, 2012; October 18, 2013; September 19, 2014; October 29, 2015; October 13, 2016; October 6, 2017; October 9, 2018; October 9, 2019; October 5, 2022; October 6, 2023; October 15, 2024.
19. IeDEA Network Coordinating Center (INCC) at Vanderbilt. With Bill Wester and Mary Louise Lindegren. Vanderbilt Institute for Global Health Faculty Research Development Meeting, November 29, 2011
20. The Caribbean, Central and South America network for HIV Epidemiology: experiences from an observational HIV cohort. With Catherine McGowan.
Infectious Diseases Grand Rounds, Vanderbilt University, December 7, 2011

21. Contemporary statistical inference (Biostatistics 342); guest lecture.
January 18 and 20, 2012; January 16 and 18, 2013
22. Advanced statistical inference (Biostatistics 362); guest lecture.
February 13, 2013
23. Principal stratification: an analysis approach for dealing with post-randomization selection and truncation by death.
Health Services Research Work in Progress Seminar, Vanderbilt University, March 12, 2013
24. Probability-scale residuals.
Department of Biostatistics, Vanderbilt University, January 22, 2014
25. Comparing different methods for assessing when to start antiretroviral therapy.
Infectious Diseases Grand Rounds, Vanderbilt University, March 13, 2014
26. The Caribbean, Central and South American Network for HIV Research (CCASAnet).
Vanderbilt Institute for Global Health Faculty Research Development Meeting, May 5, 2014.
27. Incorporating partially validated data into analyses of error-prone datasets to improve estimation.
Center for Quantitative Sciences Seminar, April 17, 2015.
28. Methods for Research in Implementation Science.
Short course co-taught with Sten Vermund and Meridith Blevins as part of Vanderbilt-UEM Partnership for Research in Implementation Science Mozambique (PRISM).
Universidade Eduardo Mondlane. Maputo, Mozambique. December 5-9, 2016.
29. Modeling continuous response variables using ordinal regression.
Department of Biostatistics, Vanderbilt University, January 17, 2018.
30. TuLHIP Study: Tuberculosis Treatment Length and Adherence in HIV-positive Persons.
Centro de Investigacao em Saude de Manica, Mozambique. October 18, 2018.
31. Modeling continuous response variables using ordinal regression.
Continuing Education - Method Implementation Workshop. Department of Biostatistics, Vanderbilt University, August 16, 2019.
32. New statistical methods motivated and illustrated using data from Tennessee Center for AIDS Research (TN-CFAR) investigators.
Work in Progress Seminar. TN-CFAR. June 8, 2020.
33. Multi-wave validation sampling for error-prone electronic health records.
Department of Biostatistics, Vanderbilt University, October 5, 2022.
34. Regression.
Fogarty IeDEA Mentorship Program, virtual. November 17, 2022.

R01 AI094562 PI: Vermund 03/15/11-02/28/15
Multi-component HIV Intervention Packages for Chinese MSM
Role: Co-Investigator

R34 AI091446 PI: Vermund 08/01/11-07/31/14
Expanding Testing, Linkage, and Treatment for AIDS Prevention Among MSM in China
Role: Co-Investigator

R01 HD075075 PI: Aliyu 09/28/12-06/30/14
Optimizing integrated PMTCT services in rural North-Central Nigeria
Role: Co-Investigator

U01 AI069923 PI: McGowan 06/15/06-present
Caribbean, Central and South America Network for HIV epidemiology (CCASAnet)
Role: Co-Investigator

P30 AI110527 PI: Mallal 04/01/15-present
Tennessee Center for AIDS Research (TN-CFAR)
Role: Co-Investigator and Director of Biostatistics and Biomedical Informatics Core

K08 AI106420 PI: Van der Heijden 08/01/14-07/31/19
Fluoroquinolone Resistance in Patients with Multidrug-Resistant Tuberculosis
Role: Co-Investigator

R24 AI124872 PI: Duda 04/30/16-03/31/21
Harmonist: A Scalable Toolkit for Standardizing and Coordinating Data Sharing Across
International Research Networks
Role: Co-Investigator

R01 MH113478-01 PI: Audet 05/12/17-present
Partners-based HIV Treatment for Sero-concordant Couples attending Antenatal Care
Role: Co-Investigator

U01 DK112271-01 PI: Wester 9/15/17-present
Optimal Management of HIV Infected Adults at Risk for Kidney Disease in Nigeria
Role: Co-Investigator

R01 MH113438-01A1 PI: Pettit 12/01/17-11/30/20
Multi-level Social and Behavioral Determinants of Health and Missed HIV Healthcare
Provider Visits

Role: Co-Investigator

R01 AI093234 PI: Shepherd 05/18/11-present
Statistical Methods for Ordinal Variables in HIV/AIDS Studies
Role: Principal Investigator

R-1609-36207 PI: Shepherd 12/01/17-11/30/22
Patient-Centered Outcomes Research Institute (PCORI)
Statistical methods and designs for addressing correlated errors in outcomes and covariates in studies using electronic health records data
Role: Principal Investigator

R01/R37 AI131771 PI: Shepherd 01/01/18-present
Statistical methods and designs for correlated outcome and covariate errors in studies of HIV/AIDS
Role: Principal Investigator

D43 TW012268 PI: Shepherd 04/01/22-present
Vanderbilt Nigeria Biostatistics Training Program (VN-BioStat)
Role: Principal Investigator

Publications and Presentations

Peer-Reviewed Publications

1. Shepherd BE, Schaalje GB, Smith MJ, Murray BK, O'Neill KL. Statistical analysis of the comet assay using a mixture of gamma distributions. *Quantitative Microbiology* 2000; 2: 69–79.
2. Mwachari CW, Shepherd BE, Cleopa O, Odhiambo JA, Cohen CR. Mortality and burden of disease in a cohort of HIV-seropositive adults in Nairobi, Kenya. *International Journal of STD and AIDS* 2004; 15: 120–126.
3. Shepherd BE, Guttorp P, Lansdorp PM, Abkowitz JL. Estimating human hematopoietic stem cell kinetics using granulocyte telomere lengths. *Experimental Hematology* 2004; 32: 1040–1050.
4. Gilbert PB, Ackers M, Berman PW, Francis DP, Popovic V, Hu D, Heyward WL, Sinangil F, Shepherd BE, Gurwith M. HIV-1 virologic and immunologic progression and antiretroviral therapy initiation among HIV-1-infected participants in an efficacy trial of recombinant glycoprotein 120 vaccine. *Journal of Infectious Diseases* 2005; 192: 974–983.

5. Shepherd BE, Rossini AJ, Soto RJ, de Rivera IL, Mullins JI. Sampling designs for HIV molecular epidemiology with application to Honduras. *AIDS Research and Human Retroviruses* 2005; 21: 907–914.
6. Shepherd BE, Gilbert PB, Jemai Y, Rotnitzky A. Sensitivity analyses comparing outcomes only existing in a subset selected post-randomization, conditional on covariates, with application to HIV vaccine trials. *Biometrics* 2006; 62: 332–342.
7. Parham GP, Sahasrabudde VV, Mwanahamuntu MH, Shepherd BE, Hicks ML, Stringer EM, Vermund SH. Prevalence and predictors of squamous intraepithelial lesions of the cervix in HIV-infected women in Lusaka, Zambia. *Gynecologic Oncology* 2006; 103: 1017–1022.
8. Drake WP, Dhason MS, Nadaf M, Shepherd BE, Vivedulu S, Hajizadeh R, Newman LS, Kalams SA. Cellular recognition of Mycobacterium ESAT-6 and katG peptides in systemic sarcoidosis. *Infection and Immunity* 2007; 75: 527–530.
9. Hulgán T, Shepherd BE, Raffanti SP, Fusco JS, Beckerman R, Barkanic G, Sterling TR. Absolute and percentage CD4+ lymphocytes are independent predictors of disease progression in HIV-infected persons initiating HAART. *Journal of Infectious Diseases* 2007; 195: 425–431.
10. Tian C, Luskin GK, Dischert KM, Higginbotham JN, Shepherd BE, Crowe JE Jr. Evidence for preferential Ig gene usage and differential TdT and exonuclease activities in human naive and memory B cells. *Molecular Immunology* 2007; 44: 2173–83.
11. Shepherd BE, Gilbert PB, Mehrotra DV. Eliciting a counterfactual sensitivity parameter. *The American Statistician* 2007; 61: 56–63.
12. Shepherd BE, Gilbert PB, Lumley T. Sensitivity analyses comparing time-to-event outcomes only existing in a subset selected post-randomization. *Journal of the American Statistical Association* 2007; 102: 573–582.
13. Hajizadeh R, Sato H, Carlisle J, Nadaf MT, Evans W, Shepherd BE, Miller RF, Kalams SA, Drake WP. Mycobacterium tuberculosis antigen 85A induces Th-1 immune responses in systemic sarcoidosis. *Journal of Clinical Immunology* 2007; 27: 445–454.
14. Williams JV, Chen Z, Cseke G, Wright DW, Keefer CJ, Tollefson SJ, Hessell A, Podsiad A, Shepherd BE, Sanna PP, Burton DR, Crowe JE Jr, Williamson RA. A Recombinant Human Monoclonal Antibody to Human Metapneumovirus Fusion Protein that Neutralizes Virus in Vitro and is Effective Therapeutically in Vivo. *Journal of Virology* 2007; 81: 8315–8324.
15. Shepherd BE, Kiem HP, Lansdorp PM, Aubert G, Dunbar CE, LaRochelle A, Seggewiss R, Guttorp P, Abkowitz JL. Hematopoietic stem cell behavior in non-human primates. *Blood* 2007; 110: 1806–1813.

16. Mok H, Lee S, Utley TJ, Shepherd BE, Polosukhin VV, Collier ML, Davis NL, Johnston RE, Crowe JE Jr. Venezuelan equine encephalitis replicon particles encoding respiratory syncytial virus surface glycoproteins induce protective mucosal responses in mice and cotton rats. *Journal of Virology* 2007; 81: 13710–13722.
17. Jemai Y, Rotnitzky A, Shepherd BE, Gilbert PB. Semiparametric estimation of treatment effects given baseline covariates on an outcome measured after a post-randomization event occurs. *Journal of the Royal Statistical Society, Series B* 2007; 69: 879–901.
18. Riviello ED, Sterling TR, Shepherd B, Fantan T, Makhema J. HIV in the workplace in Botswana: incidence, prevalence, and disease severity. *AIDS Research and Human Retroviruses* 2007; 23: 1453–1460.
19. Carlisle J, Evans W, Hajizadeh R, Shepherd BE, Ott RD, Richter K, Drake WP. Multiple Mycobacterium antigens induce interferon-gamma production from sarcoidosis peripheral blood mononuclear cells. *Journal of Clinical and Experimental Immunology* 2007; 150: 460–468.
20. Tian C, Luskin GK, Dischert KM, Higginbotham JN, Shepherd BE, Crowe JE Jr. Immunodominance of the VH1-46 antibody gene segment in the primary repertoire of human rotavirus-specific B cells is reduced in the memory compartment through somatic mutation of nondominant clones. *Journal of Immunology* 2008; 180: 3279–3288.
21. Shepherd BE. The cost of checking proportional hazards. *Statistics in Medicine* 2008; 27: 1248–1260.
22. Carlucci JG, Kamanga A, Sheneberger R, Shepherd BE, Jenkins CA, Spurrier J, Vermund SH. Predictors of adherence to antiretroviral therapy in rural Zambia. *Journal of Acquired Immune Deficiency Syndromes* 2008; 47: 615–622.
23. Allen SS, Evans W, Carlisle J, Hajizadeh R, Nadaf M, Pride DT, Shepherd BE, Johnson JE, Drake WP. Superoxide dismutase A antigens derived from molecular analysis of sarcoidosis granulomas elicit systemic Th-1 immune responses. *Respiratory Research* 2008; 9: 36.
24. Utley TJ, Ducharme NA, Varthakavi V, Shepherd BE, Santangelo PJ, Lindquist ME, Goldenring JR, Crowe JE Jr. Respiratory syncytial virus uses a Vps4-independent budding mechanism controlled by Rab11-FIP2. *Proceedings of the National Academy of Sciences* 2008; 105: 10209–10214.
25. Morel KR, Shepherd BE. Developing a symptom validity test for posttraumatic stress disorder: application of the binomial distribution. *Journal of Anxiety Disorders* 2008; 22: 1297–1302.
26. Mok H, Tollefson SJ, Podsiad AB, Shepherd BE, Polosukhin VV, Johnston RE, Williams JV, Crowe JE Jr. An alphavirus replicon-based human metapneumovirus

- vaccine is immunogenic and protective in mice and cotton rats. *Journal of Virology* 2008; 82: 11410–11418.
27. Shepherd BE, Redman MW, Ankerst DP. Does finasteride affect the severity of prostate cancer? A causal sensitivity analysis. *Journal of the American Statistical Association* 2008; 103: 1392–1404.
 28. Tsai CS, Shepherd BE, Vermund SH. Does douching increase risk for sexually transmitted infections? A prospective study in high-risk adolescents. *American Journal of Obstetrics and Gynecology* 2009; 200: 38.e1–8.
 29. Pettit AC, Barkanic G, Stinnette S, Rebeiro P, Blackwell R, Raffanti SP, Shepherd BE, Sterling TR. Potentially-preventable tuberculosis among HIV-infected persons in the era of highly active antiretroviral treatment. *International Journal of Tuberculosis and Lung Disease* 2009; 13: 355–359.
 30. Aliferis CF, Statnikov A, Tsamardinos I, Schildcrout JS, Shepherd BE, Harrell FE Jr. Factors influencing the statistical power of complex data analysis protocols for molecular signature development from microarray data. *PLoS ONE* 2009; 4: e4922.
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236. *Eden S, Li C, Shepherd BE. Spearman-like correlation measure adjusting for covariates in bivariate survival data. *Biometrical Journal* 2023; 65: 2200137.
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239. Amorim G, Tao R, Lotspeich SC, Shaw PA, Lumley T, Patel RC, Shepherd BE. Three-phase generalized raking and multiple imputation estimators to address error-prone data. *Statistics in Medicine* 2024; 43: 379–394.
240. Brown LL, Perkins J, Shepherd BE, Ramasamy S, Wilkins M, Osman A, Turner M, Link T, Edgerton R, Suiter SV, Pettit AC. Piloting safety and stabilization: a multi-component trauma intervention to improve HIV viral suppression, retention in care, and post-traumatic stress disorder in a southern United States HIV service organization. *AIDS in Behavior* 2024; 28: 174–185.
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244. *#Lotspeich SC, Amorim G, Shaw PA, Tao R, Shepherd BE. Optimal multi-wave validation of secondary use data with outcome and exposure misclassification. *The Canadian Journal of Statistics* 2024; 52: 532-554.

245. Audet CM, Graves E, Shepherd BE, Prigmore HL, Brooks HL, Emilio A, Matino A, Paulo P, Diemer MA, Frisby M, Sack DE, Aboobacar A, Barreto E, Van Rompaey S, De Shacht C. Partner-based HIV treatment for seroconcordant couples attending antenatal and postnatal care in rural Mozambique: a cluster randomized controlled trial. *Journal of Acquired Immune Deficiency Syndromes* 2024; 96: 259–269.
246. *Tian Y, Li C, Tu S, James NT, Harrell FE, Shepherd BE. Addressing multiple detection limits with semiparametric cumulative probability models. *Journal of the American Statistical Association* 2024; 119: 864–874.
247. Norwood J, Jenkins CA, Bhatta M, Turner M, Bian A, Nelson J, Ransby I, Hughes D, Koethe JR, Sterling TR, Shepherd BE, Castilho JL. Hormonal contraception and risk of cardiometabolic disease in women with HIV. *Journal of Women's Health* 2024; 33: 966–974.
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249. Rebeiro PF, Thome JC, Gange SJ, Althoff KN, Berry SA, Horberg MA, Moore RD, Silverberg MJ, Sack DE, Sterling TR, Sant'Anna P, Shepherd BE. The impact of Medicaid expansion under the Affordable Care Act on HIV care continuum outcomes across the United States. *Health Affairs Scholar* 2024; 2: qxae128.
250. Kana SA, Alkassim RS, Adamu AL, Ibrahim IY, Shepherd BE, Sani MU, Wester CW, Aliyu MH. Prevalence and predictors of right ventricular dysfunction among adults living with HIV in northwest Nigeria. *Cardiovascular Diagnosis and Therapy* 2024; 14: 753–770.

In Press

251. *Abdulhamid A, Shepherd BE, Wudil U, Van Wyk C, Dankishiya F, Hussaini N, Wester CW, Aliyu M. Sick cell trait, APOL1 risk allele status and chronic kidney disease among ART-experienced adults living with HIV in northern Nigeria. *International Journal of STD and AIDS* (in press).
252. Yang JB, Shepherd BE, Lumley T, Shaw PA. Optimum allocation for adaptive multi-wave sampling in R: the R package 'optimall'. *Journal of Statistical Software* (in press).
253. Castilho JL, Fonseca FF, Kim A, Jalil E, Tu S, Beber AMB, Benzaken AS, Veloso VG, Grinsztejn B, Shepherd BE, Miranda AEB. Prenatal syphilis and adverse pregnancy outcomes in women with HIV receiving ART in Brazil. *The Lancet Regional Health - Americas* (in press).
254. *Tu S, Li C, Shepherd BE. Between- and within-cluster Spearman rank correlation. *Statistics in Medicine* (in press).

255. Castillo-Rozas G, Fonseca FF, Castilho JL, Rebeiro PF, Machado DM, Luque MT, Jalil EM, Mejia F, Kim A, Shepherd BE, Cortes CP. Antiretroviral therapy to prevent vertical transmission in Latin America: Where are we in the Treat-All era? *Journal of the International AIDS Society*

* First author is student supervised by Dr. Shepherd.

+ Won the *Methods Publication Award* for the Vanderbilt Department of Biostatistics, given annually to recognize one paper published by department members. Recipient in 2016, 2017, 2021, and 2023.

** Won the 2016 *Canadian Journal of Statistics Award*, given annually by the Statistical Society of Canada to one paper published in *CJS*.

Won the David P. Byar Early Career Award for 2023, given to one paper led by an early career investigator (Sarah Lotspeich) in the Biometrics section of the American Statistical Association.

† Won Best Paper in *Biometrics* by an IBS Member in 2023.

Invited Discussion

Shepherd BE, Liu Q. Discussion of ‘Regularized regression for categorical data.’ *Statistical Modelling* 2016; 16: 238–248.

Liu D, Shepherd BE, Discussion on ‘Assessing the goodness of fit of logistic regression models in large samples: a modification of the Hosmer-Lemeshow test’ by Giovanni Nattino, Michael L. Pennell, and Stanley Lemeshow. *Biometrics* 2020; 76: 572–574.

Book Chapter

Shepherd BE, Liu Q, Wanga V, Li C. Probability-scale residuals in HIV/AIDS research: diagnostics and inference. *Quantitative Methods for HIV/AIDS Research*, editors Chan C, Hudgens MG, Chow SC. 2017. Chapman and Hall/CRC.

Book Reviews

Shepherd BE. Review of “Global Sensitivity Analysis. The Primer” by Saltelli A et al. *Biometrics* 2009; 65: 1311–1312.

Shepherd BE, Jarrett R, Fu L. Review of “Causal Inference for Statistics, Social, and Biomedical Sciences: An Introduction” by Imbens G and Rubin D. *Biometrics* 2016; 72: 1387-1388.

Letter to the Editor

Morel KR, Shepherd BE (2008). Meta-analysis of the Morel Emotional Numbing Test for PTSD: comment on Sing, Avasthi, and Grover. *German Journal of Psychiatry* 11: 128-131.

Presentations

Invited

1. An analysis problem arising in HIV vaccine trials and our proposed solution.
Department of Statistics, Brigham Young University, February 28, 2006.
2. Comparing outcomes that only exist in a group chosen after randomization.
Causal Inference Working Group, Department of Biostatistics, Johns Hopkins University, December 14, 2006.
3. Design of medical studies and some analysis advice.
The Caribbean, Central, and South American network, Educational Visit, Huesped Foundation, Buenos Aires, Argentina, September 26, 2007.
4. Kaplan-Meier survival estimates.
The Caribbean, Central, and South American network, Educational Visit, Hospital Universitario Clementino Fraga Filho, Rio de Janeiro, Brazil, November 7, 2007.
5. Assessing causal effects in the doomed.
Western North American Region of the International Biometric Society, University of California, Davis, June 25, 2008.
6. Vaccine efficacy among the doomed when monotonicity is unreasonable.
Joint Statistical Meetings. Denver. August 5, 2008.
7. Assessing the effect of vaccination in the doomed.
Department of Health Studies, University of Chicago, October 22, 2008.
8. The cost of checking proportional hazards.
Biostatistics Research Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, November 14, 2008.
9. Data analysis: science and art.
Workshop on behavior intervention for people with high-risk for AIDS, National Center for STD/AIDS Control and Prevention, China Centers for Disease Control, Beijing, China, April 25, 2009.
10. Assessing the effect of vaccination on post-infection outcomes.
Department of Economics, Indiana University Purdue University Indianapolis, October 15, 2009.
11. Test of association between two ordinal variables while adjusting for covariates.
Department of Biostatistics, Johns Hopkins University, October 21, 2009.
12. The Caribbean, Central and South America Network for HIV Epidemiology: outcomes and errors.
Infectious Diseases / Center for AIDS Research Conference, University of North Carolina, Chapel Hill, November 6, 2009.

13. Estimating the optimal CD4 count for HIV-infected individuals to start antiretroviral therapy.
Causal Inference Group, Department of Epidemiology, University of North Carolina, Chapel Hill, November 6, 2009.
14. Eliciting a counterfactual sensitivity parameter.
Atlantic Causal Inference Conference, New York City, May 20, 2010.
15. Sensitivity analyses to assess the effect of vaccination on those who would have been infected regardless of treatment assignment.
Western North American Region of the International Biometric Society, University of Washington, June 21, 2010.
16. Estimating the optimal CD4 count for HIV-infected individuals to start antiretroviral therapy.
Division of Epidemiology, University of Utah, July 6, 2010.
17. A new residual for ordinal outcomes and a new test of association for ordinal predictors.
Department of Biostatistics and Epidemiology, University of Pennsylvania, April 12, 2011.
18. Accounting in analysis for data errors discovered through sampling.
University of Pennsylvania Annual Conference on Statistical Issues in Clinical Trials, Philadelphia, April 13, 2011.
19. Sensitivity analysis of per-protocol treatment efficacy in randomized blinded trials.
Workshop on Causal Inference in Health Research, Centre de Recherches Mathématiques, Université de Montréal, May 11, 2011.
20. Practical applications of principal stratification in HIV research.
Eastern North American Region of the International Biometric Society, Washington DC, April 3, 2012.
21. Discussion of four papers on ‘Mismeasurement of time-to-event outcomes: issues and methods of analysis.’
Joint Statistical Meetings, Montreal, August 4, 2013.
22. Comparing results from two methods for estimating the optimal CD4 threshold for initiating antiretroviral therapy.
Joint Statistical Meetings, Montreal, August 8, 2013.
23. Comparing different methods for assessing when to start treatment.
Division of Biostatistics, University of Minnesota, December 4, 2013.
24. Methods to use audit data in observational studies.
Joint Statistical Meetings, Boston, August 5, 2014.

25. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. School of Mathematics and Statistics, Victoria University of Wellington, New Zealand, February 2, 2016.
26. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. Department of Epidemiology and Biostatistics, Case Western Reserve University, February 17, 2016.
27. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. Department of Bioinformatics and Biostatistics, University of Louisville, February 19, 2016.
28. Let's make America great again: principal stratification is the principal way forward. (pro side of debate) Epidemiology Congress of the Americas, Miami, June 24, 2016.
29. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. Biostat and Biomath Seminar, Fred Hutchinson Cancer Research Center, 5 July, 2016.
30. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. International Chinese Statistical Association Conference, Shanghai, China, December 20, 2016.
31. Probability-scale residuals for continuous, discrete, and censored data. Canadian Journal of Statistics Award Address. 45th Annual Meeting of the Statistical Society of Canada, Winnipeg, Manitoba, June 14, 2017.
32. Lengthening TB therapy in persons co-infected with HIV and tuberculosis: Challenges and considerations for designing a multi-national pragmatic trial. Workshop on Risk Modeling, Management and Mitigation in Health Sciences. Centre de Recherches Mathematiques. University of Montreal, December 12, 2017.
33. Correcting for errors in variables derived from electronic health records using validation sampling and multiple imputation. Joint Statistical Meetings, Vancouver, July 31, 2018.
34. Opportunities and challenges using data from large observational HIV cohorts. Workshop on Innovative Data Driven Strategies for Infectious Diseases. National Institute of Allergy and Infectious Diseases. Rockville, Maryland, September 24, 2018.
35. Covariate-adjusted Spearman's rank correlation with probability-scale residuals. Emory University, November 8, 2018.
36. Correcting for errors in variables derived from electronic health records using validation sampling and multiple imputation. UC Davis, February 5, 2019.

37. Errors in multiple variables in HIV cohort and EHR data: statistical challenges and opportunities.
Workshop on Statistical Challenges and Opportunities in HIV/AIDS Research in the Era of Getting-to-Zero HIV infections. National Institute of Allergy and Infectious Diseases. Philadelphia, March 23, 2019.
38. Multiple imputation to address errors in data errors in electronic health record analyses: advantages and disadvantages.
ENAR, Philadelphia, March 27, 2019.
39. Modeling continuous response variables using ordinal regression.
UC San Diego, June 5, 2019.
40. A pragmatic approach approach for reproducible research with sensitive data.
Society for Epidemiologic Research, Minneapolis, Minnesota, June 20, 2019.
41. Errors in electronic health records: what two-phase sampling teaches us about data validation.
Joint Statistical Meetings, Denver, Colorado, July 30, 2019.
42. Covariate-adjusted Spearman's rank correlation with probability-scale residuals.
Washington University, September 20, 2019.
43. Addressing outcome detection limits using semiparametric cumulative probability models.
ENAR, Nashville (virtual), March 24, 2020.
44. Analyzing continuous longitudinal response data with ordinal regression models.
Joint Statistical Meetings, Philadelphia (virtual), August 6, 2020.
45. Statistical approaches to improve HIV studies with error-prone data.
Emory Center for AIDS Research, Atlanta (virtual), February 18, 2021.
46. Statistical approaches to improve studies with error-prone data.
The Ohio State University, Columbus (virtual), March 12, 2021.
47. Analyzing continuous response data with ordinal cumulative probability models.
Harvard, Boston (virtual), November 5, 2021.
48. Fitting semiparametric linear transformation models with ordinal regression models.
ENAR, Houston, March 29, 2022.
49. Strengthening biostatistics resources at Aminu Kano Teaching Hospital and Bayero University Kano, Nigeria in collaboration with Vanderbilt University, USA.
Strengthening Biostatistics Resources in sub-Saharan Africa: Networking and Collaborations. Banjul, Gambia (virtual), September 1, 2022.
50. Multi-wave validation sampling to improve estimates derived from electronic health record data.
ENAR, Nashville, March 20, 2022.

51. The Vanderbilt-Nigeria Biostatistics Training Program.
Center for AIDS Research Symposium on Statistics and Data Science in HIV. Brown University, Providence, RI. June 6, 2023.
52. Statistical methods and designs for addressing data quality in studies of HIV/AIDS.
Division of Biostatistics, University of Utah, June 26, 2023.
53. Multi-wave validation sampling to improve estimates derived from electronic health record data.
FDA Sentinel Innovation Center (virtual), July 11, 2023.
54. Addressing multiple detection limits with semiparametric cumulative probability models.
School of Statistics, University of Minnesota, September 27, 2023.
55. Statistical methods and designs to address data quality in studies that use electronic health record data.
Department of Biostatistics and Epidemiology, Memorial Sloan Kettering Cancer Center, October 4, 2023.
56. Synthetic HIV cohort data to bridge open science and privacy protections.
International Chinese Statistical Association Symposium, Nashville, TN, June 17, 2024.
57. Multi-wave validation sampling for error-prone electronic health records.
Showcase Session, International Biometric Conference, Atlanta, GA, December 12, 2024.
58. Design and analysis of a multi-wave two phase study to address errors in a multi-national HIV research network.
International Joint Conference CFE-CMStatistics, London, UK (virtual), December 16, 2024.

Contributed

1. Shepherd BE, O'Neill K. Analysis of tail moments in the comet assay. American Microbiology Association. Idaho Falls. May 28, 1998.
2. Shepherd BE, Schaalje GB. Statistical analysis of the comet assay using a mixture of gamma distributions. 42nd Annual Conference on Cardiovascular Disease Epidemiology and Prevention. Honolulu. April 23, 2002.
3. Shepherd BE, Gilbert PB. Causal inference in HIV vaccine trials: Comparing biomarkers measured only in a subgroup chosen post-randomization. Joint Statistical Meetings. San Francisco. August 5, 2003.

4. Shepherd BE, Gutterop P, Abkowitz JL. Estimating human hematopoietic stem cell kinetics using granulocyte telomere lengths. American Society of Hematology. San Diego. December 7, 2003.
5. Shepherd BE, Gilbert PB, Gurwith M, Francis D. Assessment of HIV vaccine effects on viral load in the first Phase III trial of AIDSVAX B/B. Eleventh Conference on Retroviruses and Opportunistic Infections. San Francisco. February 11, 2004.
6. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Department of Biostatistics, UCSF, April 6, 2005.
7. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Department of Statistics, Simon Fraser University, March 7, 2005.
8. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Department of Biostatistics, Harvard University, March 3, 2005.
9. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Statistics Group, RAND Corporation, February 21, 2005.
10. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Department of Biostatistics, Emory University, February 18, 2005.
11. Shepherd BE. Comparing outcomes that only exist in a group chosen after randomization. Department of Biostatistics, Vanderbilt University, January 19, 2005.
12. Shepherd BE, Kiem HP, Dunbar CE, Larochelle A, Donahue RE, Seggewiss R, Lansdorp PM, Gutterop P, Abkowitz JL. Estimating the replication rate of hematopoietic stem cells in non-human primates: a test of Hayflick's hypothesis. American Society of Hematology. Atlanta. December 10, 2005.
13. Shepherd BE. The causal effect of finasteride on the severity of prostate cancer. Joint Statistical Meetings. Seattle. August 7, 2006.
14. Shepherd BE, Sterling TR, Moore RD, Raffanti SP, Hulgán T. Evaluation of a prognostic model for HIV disease progression after initiation of HAART. 11th International Workshop on HIV Observational Databases. Monte Carlo, Monaco. March 23, 2007.
15. Shepherd BE. Modelling HIV disease progression among persons initiating HAART: the cost of checking and correcting violations of the proportional hazards assumption. 11th International Workshop on HIV Observational Databases. Monte Carlo, Monaco. March 23, 2007.
16. Shepherd BE. The cost of checking proportional hazards. Joint Statistical Meetings. Salt Lake City. August 1, 2007.

17. Shepherd BE, Jenkins CA, Rebeiro PF, Stinnette SE, Bebawy SS, Kheshti A, Blackwell R, Raffanti S, Hulgán T, Sterling TR. When to start highly active antiretroviral therapy: a pilot study of inverse probability weighted methods. 12th International Workshop on HIV Observational Databases. Malaga, Spain. March 29, 2008.
18. Shepherd BE, Jenkins CA, Rebeiro PF, Stinnette SE, Bebawy SS, McGowan CC, Hulgán T, Sterling TR. When to start highly active antiretroviral therapy: estimates of an optimal rule based on CD4 count. 13th International Workshop on HIV Observational Databases. Lisbon, Portugal. March 26, 2009.
19. Shepherd BE, Yu C. Statistical methods to account for data errors discovered from an audit. Joint Statistical Meetings. Washington DC. August 4, 2009.
20. Shepherd BE, Jenkins CA, Rebeiro PF, Stinnette SE, McGowan CC, Hulgán T, Sterling TR. Comparing three methods for estimating the optimal CD4-threshold for HAART initiation. 14th International Workshop on HIV Observational Databases. Sitges, Spain. March 26, 2010.
21. Shepherd BE, Li C. Tests for conditional association between an ordinal predictor and continuous, binomial, or ordinal outcomes. Joint Statistical Meetings. Vancouver, BC. August 1, 2010.
22. Shepherd BE. Statistical methods to account for data errors discovered from an audit. Executive Committee Meeting for the International Epidemiologic Databases to Evaluate AIDS. Boston, MA. March 3, 2011.
23. Shepherd BE, Li C. Methods for leveraging the order information in ordered categorical variables. 15th International Workshop on HIV Observational Databases. Prague, Czech Republic. March 25, 2011.
24. Shepherd BE, Jenkins CA, Sterling TR for the ART-CC. Higher rates of AIDS during the first year of therapy among those born outside Europe, the United States, and Canada. 16th International Workshop on HIV Observational Databases. Athens, Greece. March 29, 2012.
25. Shepherd BE. Multiple imputation methods to account for data errors discovered by an audit. 16th International Workshop on HIV Observational Databases. Athens, Greece. March 30, 2012.
26. Shepherd BE, Giganti MJ. Comparing different approaches to account for cohort heterogeneity in the Cox proportional hazards model. 17th International Workshop on HIV Observational Databases. Cavtat, Croatia. April 11, 2013.
27. Shepherd BE. Assessing and interpreting the association between continuous covariates and outcomes using splines. 19th International Workshop on HIV Observational Databases. Catania, Sicily. March 27, 2015.

28. Shepherd BE, Jenkins C, Luque M, Cesar C, Rouzier V, Machado D, Maia M, Padgett D, Pinto J, McGowan C. 19th International Workshop on HIV Observational Databases. Mortality and regimen change among children starting antiretrovirals in Latin America. Catania, Sicily. March 27, 2015.
29. Shepherd BE, Li C, Liu Q. Probability-scale residuals for continuous, discrete, and censored data. Joint Statistical Meetings. Seattle, WA. August 9, 2015.
30. Shepherd BE, Blevins M. Reproducible research with observational HIV cohort data. 20th International Workshop on HIV Observational Databases. Budapest, Hungary. April 8, 2016.
31. Shepherd BE, Liu Q, Li C, Harrell FE. Analyzing continuous data with ordinal regression models. International Workshop on HIV and Hepatitis Observational Databases. Fuengirola, Spain. March 23, 2018.
32. Amorim G, Tao R, Lotspeich S, Shaw P, Patel R, Shepherd BE. Three-phase generalized raking to address errors in routinely collected data. Sevilla, Spain. March 24, 2022.
33. Shepherd BE. Design and analysis of a multi-wave two phase study that addresses data errors in a large observational HIV network. Joint Statistical Meetings. Toronto, CA. August 8, 2023.