

CURRICULUM VITAE

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Elizabeth R. Brown, ScD

1. Biographical Information

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2. Education

B.S., Mechanical Engineering, University of Virginia, 1994
M.S., Biometrics, University of Colorado, 1998
Sc.D., Biostatistics, Harvard University, 2002

3. Licensure

Not applicable

4. Professional Positions

Applications Programmer, Survey Research Unit, Colorado Department of Public Health and the Environment, Denver, CO. February 1995 - February 1997

Teaching Assistant, Introduction to S-Plus, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center. Fall 1997

Statistical Research Assistant/UNIX Systems Administrator, Cardiac Research Unit, Department of Veterans Affairs Medical Center, Denver, CO. March 1997 - July 1998.

Instructor, Statistical Computing Environments, Department of Biostatistics, HSPH. Fall 1999 and 2000.

Teaching Assistant, Advanced Statistical Computing, Department of Biostatistics, HSPH. Spring 2001

Computing Coordinator, Department of Biostatistics, Harvard School of Public Health (HSPH), Boston, MA. September 1998 - June 2002

Research Assistant Professor, Department of Biostatistics, University of Washington, Seattle, WA. September 2002 - June 2009.

Assistant Member, Fred Hutchinson Cancer Research Center, Seattle, WA. 2004-2009.

Research Associate Professor, Department of Biostatistics, University of Washington, Seattle, WA. July 2009 - present.

Associate Member, Fred Hutchinson Cancer Research Center, Seattle, WA. 2009-present

5. Honors, Awards and Scholarships

University of Colorado Health Sciences Center Master's Fellowship, 1997.

Statistical Graphics Section of the ASA Student Paper Competition Winner, 1998.

Maurice Davies Award as the outstanding masters student of the year, University of Colorado Health Sciences Center, 1998.

National Research Service Award (NRSA) Training Grant, National Institute of Allergic and Infectious Diseases, NIH, 1998-2000.

Student Award Winner, ENAR, 2002.

NIH Travel Award, ENAR Young Investigators Meeting, Tampa, FL, 2006.

6. Professional Activities

Referee for: *American Journal of Epidemiology, Biometrics, Biostatistics, Circulation, Journal of Computational and Graphical Statistics, Journal of the American Medical Association, Journal of the American Statistical Association, Lifetime Data Analysis, Statistics in Medicine, Radiology*

Professional Membership: American Statistical Association, ENAR, IBS

Other:

Member, ad hoc NHLBI Special Emphasis Panel for the evaluation of the Data Coordinating Center for the Microbiome of the Lung and Respiratory Tract in HIV-Infected Individuals and HIV-Uninfected Controls RFA, June 2009.

Consultant, The evaluation of the impact of prevention of mother-to-child transmission of HIV (PMTCT) programmes in low- and middle-income countries in averting new infections in children and improving child survival. UNICEF, February 2009.

7. Bibliography

a) Refereed Research Articles

Published or In Press

1. MaWhinney S, **Brown ER**, Malcolm J, VillaNueva C, Groves BM, Quaife RA, Lindenfeld J, Warner BA, Hammermeister KE, Grover FL, and Shroyer ALW. Identification of risk factors for increased cost, charges and length of stay for cardiac patients. *Annals of Thoracic Surgery*, 70:702–710, 2000.
2. **Brown ER**, MaWhinney S, Jones RH, Kafadar K, and Young B. Using bivariate smoothing splines to model the impact of multiple treatment changes on longitudinal immunological markers in HIV patients. *Statistics in Medicine*, 20(16):2489–2504, 2001.
3. **Brown ER** and Ibrahim JG. A Bayesian semiparametric joint hierarchical model for longitudinal and survival data. *Biometrics*, 59:221–228, 2003.
4. **Brown ER** and Ibrahim JG. Bayesian approaches to joint cure rate and longitudinal models with applications to cancer vaccine trials. *Biometrics*, 59:686–693, 2003.
5. Eshleman SH, Guay LA, Mwatha A, **Brown ER**, Cunningham SP, Musoke P, Mmiro F, and Jackson JB. Characterization of nevirapine resistance mutations in women with subtype A vs. D HIV-1 6–8 weeks after single-dose nevirapine (HIVNET 012). *Journal of Acquired Immune Deficiency Syndromes*, 35:126–130, 2004.
6. Eshleman SH, Guay LA, Mwatha A, Cunningham SP, **Brown ER**, Musoke P, Mmiro F, and Jackson JB. Comparison of nevirapine (NVP) resistance in Ugandan women 7 days vs. 6–8 weeks after single dose NVP prophylaxis: HIVNET 012. *AIDS Research and Human Retroviruses*, 20:595–599, 2004.
7. Horton NJ, **Brown ER**, and Qian LJ. Use of R as a toolbox for mathematical statistics exploration. *The American Statistician*, 58:343–357, 2004.
8. **Brown ER**, Ibrahim JG, and DeGruttola V. A flexible B-spline model for multiple longitudinal biomarkers and survival. *Biometrics*, 61:64–73, 2005.
9. Eshleman SH, Guay LA, Mwatha A, **Brown ER**, Musoke P, Mmiro F, and Jackson JB. Comparison of mother-to-child transmission rates in Ugandan women with subtype A vs. D HIV-1 who received single dose NVP prophylaxis: HIVNET 012. *Journal of AIDS*, 39(5):593–597, 2005.
10. Eshleman SH, Guay LA, Wang J, Cunningham SP, Mwatha A, **Brown ER**, Musoke P, Mmiro F, and Jackson JB. Distinct patterns of emergence and fading of K103N and Y181C in women with subtype A vs. D after single dose NVP: HIVNET 012. *Journal of AIDS*, 40:24–29, 2005.
11. Chi BH, Wang L, Read JS, Sheriff M, Fiscus S, **Brown ER**, Taha TE, Valentine M, and Goldenberg R. Timing of maternal and neonatal dosing of nevirapine and the risk of mother-to-child transmission of HIV-1: HIVNET 024. *AIDS*, 19:1857–1864, 2005.

12. Goldenberg RL, Mwatha A, Read JS, Adeniyi-Jones S, Sinkala M, Msmanga G, Martinson F, Hoffman I, Fawzi W, Valentine M, Emel L, **Brown E**, Mudenda V, Taha TE, and the HPTN024 Team. The HPTN 024 study: The efficacy of antibiotics to prevent chorioamnionitis and preterm birth. *American Journal of Obstetrics and Gynecology*, 194(3):650–651, 2006.
13. Taha TE, **Brown ER**, Hoffman I, Fawzi W, Read JS, Sinkala M, Martinson F, Kafulafula G, Msamanga G, Valentine M, Emel L, Mwatha A, Adeniyi-Jones S, Goldenberg R, and the HPTN024 Team. A phase III clinical trial of antibiotics to reduce chorioamnionitis-related perinatal HIV-1 transmission. *AIDS*, 20:1313–1321, 2006.
14. Goldenberg RL, Mudenda V, Read JS, **Brown ER**, Sinkala M, Kamiza S, Martinson F, Kaaya E, Hoffman I, Fawzi W, Valentine M, and Taha TE. HIVNET 024: Histologic chorioamnionitis, antibiotics and adverse infant outcomes in a predominantly HIV-1-infected African population. *Obstetrics and Gynecology*, 195(4):1065–1074, 2006.
15. Otieno PA, **Brown ER**, Mbori-Ngacha DA, Nduati RW, Farquhar C, Obimbo EM, Bosire RK, Emery S, Overbaugh J, Richardson B, and John-Stewart GC. HIV-1 disease progression in breast feeding and formula feeding mothers: A prospective 2-year comparison of T-cell subsets, HIV-1 RNA levels and mortality. *The Journal of Infectious Diseases*, 195(2):220–229, 2007.
16. Goldenberg RL, Andrews WW, Hoffman I, Fawzi W, Valentine M, Young A, Read JS, **Brown ER**, Mudenda V, Kafulafula G, Mwinga K, and Taha TE. HPTN 024: fetal fibronectin and adverse infant outcomes in a predominantly HIV-infected African population. *Obstetrics and Gynecology*, 109:392–401, 2007.
17. Walson JL, **Brown ER**, Otieno PA, Mbori-Ngacha DA, Wariua G, Obimbo EM, Bosire RK, Farquhar C, Wamalwa D, and John-Stewart GC. Morbidity among HIV-1 infected postpartum mothers in Kenya: Prevalence and correlates of illness during 2-year postpartum follow-up. *Journal of AIDS*, 46: 208–215, 2007.
18. Chi BH, Wang L, Read JS, Taha TE, Sinkala B, **Brown ER**, Valentine M, Martinson F, Goldenberg RL. Predictors of stillbirth in Sub-Saharan Africa. *Obstetrics and Gynecology*, 110:989-997, 2007.
19. Sathyanarayana S, Karr CJ, Lozano P, **Brown E**, Calafat AM, Liu F, and Swan SH. Baby care products: Sources of infant phthalate exposure. *Pediatrics*, 121(2):e260-e268, 2008.
20. Miglioretti DL and **Brown ER**. A marginalized diffusion model for estimating age at first lower endoscopy use from current status data. *Applied Statistics*, 57(1):61–74, 2008.
21. **Brown ER**, Kronmal RA, Bluemke DA, Guerci AD, Carr JJ, Goldin JG, and Detrano R. The coronary calcium coverage score: Determination, correlates and prediction of events. *Radiology*, 247:669-675, 2008.
22. Mehta S, Manji KP, Young AM, **Brown ER**, Taha TE, Read JS, Goldenberg RL, Fawzi WW. Nutritional indicators of adverse pregnancy outcomes and mother-

- to-child transmission of HIV among HIV-infected women. *American Journal of Clinical Nutrition*, 87:1639–49, 2008.
23. Gard CG* and **Brown ER**. A censored multinomial regression model with application to perinatal mother to child transmission of HIV. *BMC Medical Research Methodology*, 8:46, 2008.
 24. Chilongozi D, Wang L, Brown L, Taha T, Valentine M, Emel L, Sinkala M, Kafulafula G, Noor A, Read JS, **Brown ER**, Goldenberg RL, Hoffman I. Morbidity and mortality among a cohort of HIV-1-infected and uninfected pregnant women and their infants from Malawi, Zambia and Tanzania. *The Pediatric Infectious Diseases Journal*, 9:808-814, 2008.
 25. Musoke PM, Young AM, Owor MA, Lubega IR, **Brown ER**, Mmiro FA, Mofenson LM, Jackson JB, Fowler MG and Guay LA. Total Lymphocyte Count: not a surrogate marker for risk of death in HIV infected Ugandan children. *Journal of AIDS*, 49:171-178, 2008.
 26. Ding J, Kritchevsky SB, Hsu F, Harris TB, Burke GL, Detrano RC, Szklo M, Criqui M, Allison M, Ouyang P, **Brown ER**, Carr JJ. The association between non-subcutaneous adiposity and calcified coronary plaque: A substudy of The Multi-Ethnic Study of Atherosclerosis. *American Journal of Clinical Nutrition*, 88(3):645-650, 2008.
 27. **Brown ER**, Chi B, Read JS, Taha, TE, Sharma U, Hoffman IF, Goldenberg R, and Fiscus SA. Determining an optimal testing strategy for infants at risk for mother-to-child transmission of HIV-1 during the late postnatal period. *AIDS*, 22:2341–2346, 2008.
 28. Delaney JAC, McClelland RL, **Brown E**, Bluemke DA, Vogel-Claussen J, Lai S and Heckbert SR. Multiple imputation for missing data with cardiac magnetic resonance imaging: results from the Multi-Ethnic Study of Atherosclerosis. *The Canadian Journal of Cardiology*, in press.
 29. **Brown ER**, Otieno P, Mbori-Ngacha DA, Farquhar C, Obimbo EM, Nduati R, Overbaugh J and John-Stewart GC. Comparison of CD4, viral load, and other markers for prediction of mortality in HIV-1 infected Kenyan pregnant women. *Journal of Infectious Diseases*, 199:1292-1300, 2009.
 30. Koehler E, **Brown ER** and Haneuse S. On the assessment of Monte Carlo error in statistical experiments. *The American Statistician*, 63:155-162, 2009.
 31. **Brown ER**. A joint longitudinal and survival model for assessing the association between trends in a biomarker and risk of event. *Annals of Applied Statistics*, 3:1163-1182, 2009.
 32. Buzkova P, **Brown ER** and John-Stewart G. Longitudinal Data Analysis for Generalized Linear Models under Participant-driven Informative Follow-up: An Application in Maternal Health Epidemiology. *American Journal of Epidemiology*, in press.

*Student under Dr. Brown's supervision

d) Other Non-Refereed Scholarly Publications

33. Otieno PA, **Brown ER**, Richardson B, and John-Stewart G. Reply to Kuhn et al. *Journal of Infectious Diseases*, 195(11):1729-1730, 2007.
34. Sathyanarayana S, Calafat AM, Karr CJ, Lozano P, **Brown E**, and Swan SH. Baby Care Products: In Reply. *Pediatrics*, 121: 1292-1293, 2008.