

CURRICULUM VITAE

(07/2019)

Robert H. Lyles

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Department of Biostatistics and Bioinformatics
Rollins School of Public Health
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EDUCATION AND TRAINING

Ph.D./1996	University of North Carolina at Chapel Hill, Biostatistics
M.S./1991	University of North Carolina at Chapel Hill, Biostatistics
B.S./1988	Vanderbilt University, Mathematics (<i>summa cum laude</i>)

PROFESSIONAL EXPERIENCE

2013-present	Professor , Department of Biostatistics and Bioinformatics, The Rollins School of Public Health, Emory University.
2004-2013	Associate Professor with tenure, Department of Biostatistics and Bioinformatics, The Rollins School of Public Health, Emory University.
1999-2003	Assistant Professor , Department of Biostatistics, The Rollins School of Public Health, Emory University.
1997-1999	Assistant Scientist , The Johns Hopkins University, Department of Epidemiology, School of Hygiene and Public Health. Research Track faculty member and biostatistician for two large HIV cohort studies.
1996-1997	Research Associate , The Johns Hopkins University, Department of Epidemiology, School of Hygiene and Public Health.
1993-1995	Graduate Assistant , The University of North Carolina, Department of Environmental Sciences and Engineering. Collaborative/methodological research to study environmental exposure in the nickel industry.
1989-1993	Graduate Assistant , Collaborative Studies Coordinating Center, The University of North Carolina, Department of Biostatistics. Biostatistician for Atherosclerosis Risk in Communities (ARIC) study, and collaborative biostatistician for neurologists studying complications of HIV infection..

ADMINISTRATIVE LEADERSHIP ROLES

2007-2009	Director of Graduate Studies (DGS), Department of Biostatistics, Emory University
2009-2014	Director, Biostatistics Epidemiology Research Design (BERD) Program, Atlanta Clinical and Translational Sciences Institute (ACTSI), Emory University
2014-present	Director, Emory Center for AIDS Research (CFAR) Biostatistics Core
2016-present	Senior Biostatistician, Child Health and Mortality Prevention Surveillance (CHAMPS)

PROFESSIONAL/SERVICE ACTIVITIES

Member, The American Statistical Association
Member, International Biometric Society
Adjunct Faculty, UNC at Chapel Hill Department of Biostatistics (1999-2006)

Project Development

1996-1998 Co-investigator, Data Working Group, Multicenter AIDS Cohort Study
1997-1998 Co-investigator, Natural History Working Group, Women's Interagency HIV Study

Data Safety and Monitoring Boards

2012-2014 Improving Outcomes of Family Caregivers in Heart Failure Patients (COOL-HF; Emory University)
2012-2014 Promoting Health and Wellbeing in African American Dementia Family Caregivers (COOL-AD; Emory University)

Departmental, School, or University Committees and Service

1999 ADAP search committee, Department of Biostatistics, Emory University
1999-2000 Curriculum committee, Department of Biostatistics, Emory Univ.
2001-02 Clinical Research Review Committee, Winship Cancer Institute, Emory Univ.
2001-02 Student recruitment committee, Rollins School of Public Health, Emory Univ.
1999-2004 Student concerns committee, Department of Biostatistics, Emory Univ.
2000-03 Technical reports committee, Department of Biostatistics, Emory Univ.
2001-04 Exam committee, Department of Biostatistics, Emory Univ.
2003-04 Chair, Associate Faculty search committee, Dept. of Biostatistics, Emory Univ.
2004-05 Chair, Student concerns committee, Dept. of Biostatistics, Emory Univ.
2005--2008 Curriculum committee, Rollins School of Public Health, Emory Univ.
2005--06 Admissions committee, Department of Biostatistics, Emory Univ.
2005-06 Faculty search committee, Winship Cancer Institute, Emory Univ.
2006 MLK award presenter, 13th Annual Emory Univ. Community Awards Program
2007--08 Student funding committee, Department of Biostatistics, Emory Univ.
2007--09 Chair, Admissions committee, Department of Biostatistics, Emory Univ.
2008-- 09 Student recruiting committee, Department of Biostatistics, Emory Univ.
2008-09 Faculty search committee, Winship Cancer Institute, Emory Univ.
2009 Honor Council Committee Member, Graduate School of Emory Univ.
2010 Student concerns committee, Department of Biostatistics, Emory Univ.
2011--present Awards committee, Department of Biostatistics, Emory Univ.
2013-14 Exam committee, Department of Biostatistics, Emory Univ.
2015-16 Faculty Search Committee, Department of Biostatistics, Emory Univ.
2015--16 Admissions committee, Department of Biostatistics, Emory Univ.
2016-17 Co-Chair, Faculty Search Committee, Department of Biostatistics, Emory Univ.
2018-19 Associate Dean for Public Health Practice Search Committee, Emory Univ. Rollins School of Public Health

Review / Editorial Activities

May 2013-Dec. 2015 Associate Editor, *American Journal of Epidemiology*
April 2014-present Associate Editor, *Environmetrics*
Dec. 2015-Dec. 2017 Editorial Board (Statistics), *American Journal of Epidemiology*
Reviewer, *Applied Environmental and Occupational Hygiene* (1996)
Reviewer, *Journal of Agricultural, Biological, and Environmental Statistics* (1997; 2002; 2014)
Reviewer, *AIDS* (1997)
Reviewer, *Journal of Clinical Immunology and Immunopathology* (1997)
Reviewer, *Psychometrika* (1998)
Reviewer, *Annals of Occupational Hygiene* (1999; 2003; 2008)
Reviewer, *The American Statistician* (2000; 2019)
Reviewer, *American Journal of Epidemiology* (2001(2); 2002; 2004; 2005(2); 2006; 2007; 2008; 2009; 2013(2); 2015; 2016; 2017; 2018; 2019)
Reviewer, *Journal of the American Statistical Association* (2002)
Reviewer, *Biometrics* (2002; 2003; 2004; 2006; 2008; 2010; 2012; 2018)
Reviewer, *Annals of Epidemiology* (2003; 2015)
Reviewer, *Statistics in Medicine* (2003; 2005; 2006(3); 2007; 2008; 2009; 2010; 2011; 2012; 2013(2); 2014; 2016; 2017; 2019)
Reviewer, *Technometrics* (2003)
Reviewer, *Journal of Biopharmaceutical Statistics* (2004; 2015; 2019)
Reviewer, *Journal of the Royal Statistical Society, Series C* (2004; 2005)
Reviewer, *BioMed Central Medical Research Methodology* (2005)
Reviewer, *Epidemiology* (2007; 2018)
Reviewer, *Computational Statistics* (2007)
Reviewer, *Journal of Applied Statistics* (2008)
Reviewer, *Bulletin of the Malaysian Mathematical Sciences Society* (2009)
Reviewer, *Statistics in Biopharmaceutical Research* (2009)
Reviewer, *Statistics and Probability Letters* (2009; 2010)
Reviewer, *Environmental Health Perspectives* (2009; 2014)
Reviewer, *Pharmacology* (2010)
Reviewer, *AIDS Research and Human Retroviruses* (2010)
Reviewer, *Computational Statistics and Data Analysis* (2011)
Reviewer, *Biostatistics* (2012; 2014)
Reviewer, *Communications in Statistics-Simulation and Computation* (2012)
Reviewer, *Journal of Statistical Planning and Inference* (2014)
Reviewer, *Epidemiologic Methods* (2016)
Reviewer, *American Journal of Mathematical and Management Sciences* (2017)
Reviewer, *Journal of Statistical Distributions and Applications* (2017)

External Proposal / Book Reviewer:

External reviewer, FDA Office of Women's Health (OWH) Fiscal Year 2008 Scientific Funding Program
External reviewer, FDA Office of Women's Health (OWH) Fiscal Year 2007 Scientific Funding Program
Research Proposal Reviewer, National Science Foundation (NSF) Faculty Early Career Development (CAREER) program (2005)

Book Proposal Reviewer, Chapman and Hall / CRC Press (2005)
Book Reviewer, *Journal of the American Statistical Association* (2005)

Professional Meetings and Associations

Session Chair, Joint Statistical Meetings of American Statistical Association (ASA) and Biometric Society, Indianapolis, IN, August, 2000.

Local Assistance Committee Member, Joint Statistical Meetings of ASA and Biometric Society, Atlanta, GA, August, 2001.

Session Chair, 129th Annual Meeting of the American Public Health Association (APHA), Atlanta, GA, October, 2001.

Session Chair, Joint Statistical Meetings of ASA and Biometric Society, Toronto, Canada, August, 2004.

Roundtable Organizer, Section on Statistics in Epidemiology, Joint Statistical Meetings of ASA and Biometric Society, Toronto, Canada, August, 2004.

Manuscript reviewer, 2004, 2005, and 2006 Young Investigator Award competitions for the ASA Section on Statistics in Epidemiology

Program Chair, Section on Statistics in Epidemiology, The American Statistical Association (effective for 2005 Joint Statistical Meetings)

Program Committee, 2006 meeting, Eastern North American Region (ENAR) of the International Biometric Society

Session Chair, Joint Statistical Meetings of ASA and Biometric Society, Minneapolis, Minnesota, August, 2005.

Local Assistance Committee Chair, 2007 meeting, Eastern North American Region (ENAR) of the International Biometric Society, Atlanta, GA

Regional Advisory Board (RAB), Eastern North American Region (ENAR) of the International Biometric Society (2008—2010)

Student Paper / Van Ryzin Awards Committee, Eastern North American Region (ENAR) of the International Biometric Society (2008—2010)

Co-Program Chair / Session Chair, Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, June, 2009

Educational Advisory Committee, 2014 meeting, Eastern North American Region (ENAR) of the International Biometric Society

Senior Panelist, 2017 Workshop for Junior Biostatisticians in Health Research, ENAR meeting

Educational Short Courses

“Measurement Error in Statistical Data Analysis”, DREAMS Workshop Series (sponsored by Emory University Department of Sociology), 4/2/09.

Working Groups

“Statistics for Mixture Modeling and Dose Additivity Assessment”, Toxicology Excellence for Risk Assessment (TERA) and Environmental Protection Agency (EPA) Contract Working Group, 2008-2009.

“Methods Development for Biomarkers”, Long-Range Research Initiative of the American Chemistry Council (ACC) and the Intramural Research Program of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), 2010.

HONORS/AWARDS

Phi Beta Kappa

Delta Omega

Harold Stirling Vanderbilt Scholar (Vanderbilt University, 1984-1988)

Environmental Biostatistics training grant (National Institute of Environmental Health Sciences, through the Department of Biostatistics, University of North Carolina at Chapel Hill, 1988-1993)

Graduate School Dissertation Fellowship, The University of North Carolina at Chapel Hill (Fall, 1995)

Bernard G. Greenberg Award for Excellence in Doctoral Research, School of Public Health, The University of North Carolina at Chapel Hill (Spring, 1996)

Young Investigator Award, Section on Epidemiology, The American Statistical Association (presented at 1996 Joint Statistical Meetings, Chicago)

American College of Epidemiology/American Chemistry Council Early Career Award in Epidemiologic Methods (2001)

James E. Grizzle Distinguished Alumnus Award, The University of North Carolina Department of Biostatistics (2002)

Biostatistics Teaching Award, Rollins School of Public Health of Emory University (2013)

CDC Statistical Science Award, Theoretical Paper Category for paper by L.Tang et al. (2014)

Elected Fellow, American Statistical Association (2014)

PUBLICATIONS

Journal Articles (Statistical methods-oriented)

1. **Lyles, R.H.**, and Chambless, L.E. “Effects of Model Misspecification in the Estimation of Variance Components and Intraclass Correlation for Paired Data”, *Statistics in Medicine*, 14, 1693-1706 (1995).
2. Rappaport, S.M., **Lyles, R.H.**, and Kupper, L.L. “An Exposure-Assessment Strategy Accounting for

- Within- and Between-Worker Sources of Variability”, *Annals of Occupational Hygiene*, 39(4), 469-495 (1995).
3. **Lyles, R.H.** and Kupper, L.L. “On Strategies for Comparing Occupational Exposure Data to Limits”, *American Industrial Hygiene Association Journal*, 57, 6-15 (1996).
 4. **Lyles, R.H.**, Kupper, L.L., and Rappaport, S.M. “A Lognormal Distribution-Based Exposure Assessment Method for Unbalanced Data”, *Annals of Occupational Hygiene*, 41, 63-76 (1997).
 5. **Lyles, R.H.**, Kupper, L.L., and Rappaport, S.M. “Assessing Regulatory Compliance of Occupational Exposures via the Balanced One-Way Random Effects ANOVA Model”, *Journal of Agricultural, Biological, and Environmental Statistics*, 2, 64-86 (1997).
 6. **Lyles, R.H.** and Kupper, L.L. “A Detailed Evaluation of Adjustment Methods for Multiplicative Measurement Error in Multiple Linear Regression, with Applications in Occupational Epidemiology”, *Biometrics*, 53, 1008-1025 (1997).
 7. **Lyles, R.H.**, Kupper, L.L., and Rappaport, S.M. “On Prediction of Lognormal-Scale Mean Exposure Levels in Epidemiologic Studies”, *Journal of Agricultural, Biological, and Environmental Statistics*, 2, 417-439 (1997).
 8. **Lyles, R.H.** and Kupper, L.L. “UMVU Estimators for the Population Mean and Variance Based on Random Effects Models for Lognormal Data”, *Communications in Statistics-Theory and Methods*, 27, 795-818 (1998).
 9. **Lyles, R.H.** and Xu, J. “Classifying Individuals Based on Predictors of Random Effects”, *Statistics in Medicine*, 18, 35-52 (1999).
 10. **Lyles, R.H.**, Muñoz, A., Xu, J, Taylor, J.M.G., and Chmiel, J. “Adjusting for Measurement Error to Assess Health Effects of Variability in Biomarkers”, *Statistics in Medicine*, 18,1069-1086 (1999).
 11. **Lyles, R.H.** and Kupper, L.L. “A Note on Confidence Interval Estimation in Measurement Error Adjustment”, *The American Statistician*, 53, 247-253 (1999).
 12. **Lyles, R.H.** and McFarlane, G. “Effects of Covariate Measurement Error in the Initial Level and Rate of Change of an Exposure Variable”, *Biometrics*, 56, 634-639 (2000).
 13. **Lyles, R.H.**, Lyles, C.M., and Taylor, D.J. “Random Regression Models for Human Immunodeficiency Virus Ribonucleic Acid Data Subject to Left Censoring and Informative Drop-outs”, *Journal of the Royal Statistical Society Series C*, 49, 485-497 (2000).
 14. **Lyles, R.H.**, Fan, D., and Chuachoowong, R. “Correlation Coefficient Estimation Involving a Left Censored Laboratory Assay Variable”, *Statistics in Medicine*, 20, 2921-2933 (2001).
 15. Taylor, D.J., Kupper, L.L., Rappaport, S.M., and **Lyles, R.H.** “A Mixture Model for Occupational Exposure Mean Testing with a Limit of Detection”, *Biometrics*, 57, 681-688 (2001).
 16. **Lyles, R.H.**, Taylor, D.J., Hanfelt, J.J., and Kupper, L.L. “An Alternative Parametric Approach for

- Discrete Missing Data Problems”, *Communications in Statistics-Theory and Methods*, 30, 1969-1988 (2001).
17. **Lyles, R.H.**, Williams, J.K., and Chuachoowong, R. “Correlating Two Viral Load Assays with Known Detection Limits”, *Biometrics*, 57, 1238-1244 (2001).
 18. **Lyles, R.H.** and Allen, A.S. “Estimating Crude or Common Odds Ratios in Case-Control Studies with Informatively Missing Exposure Data”, *American Journal of Epidemiology*, 155, 274-281 (2002).
 19. **Lyles, R.H.** “A Note on Estimating Crude Odds Ratios in Case-control Studies with Differentially Misclassified Exposure”, *Biometrics*, 58, 1034-1037 (2002).
 20. Lin, H-M., **Lyles, R.H.**, and Williamson, J.M. “Bias in a Placebo-Controlled Study Due to Mismeasurement of Disease Status and the Regression Effect”, *Controlled Clinical Trials*, 23, 497-501 (2002).
 21. **Lyles, R.H.** and Allen, A.S. “Missing Data in the 2×2 Table: Patterns and Likelihood-Based Analysis for Cross-sectional Studies with Supplemental Sampling”, *Statistics in Medicine*, 22, 517-534 (2003).
 22. Song, J., Barnhart, H.X., and **Lyles, R.H.** “A GEE Approach for Estimating Correlation Coefficients Involving Left-censored Variables”, *Journal of Data Science* 2, 245-257 (2004).
 23. **Lyles, R.H.**, Lin, H-M., and Williamson, J.M. “Design and Analytic Considerations for Single-Armed Studies with Misclassification of a Repeated Binary Outcome”, *Journal of Biopharmaceutical Statistics* 14, 229-247 (2004).
 24. Wannemuehler, K.A. and **Lyles, R.H.** “A Unified Model for Covariate Measurement Error Adjustment in an Occupational Health Study While Accounting for Nondetectable Exposures”, *Journal of the Royal Statistical Society Series C*, 54, 259-271 (2005).
 25. **Lyles, R.H.**, Williamson, J.M., Lin, H.-M., and Heilig, C.M. “Extending McNemar’s Test: Estimation and Inference When Paired Binary Outcome Data are Misclassified”, *Biometrics* 61, 287-294 (2005).
 26. Lin, H-M, **Lyles, R.H.**, Williamson, J.M., and Kunselman, A.R. “Estimation of the Intervention Effect in a Nonrandomized Study with Pre- and Post-Mismeasured Binary Responses”, *Statistics in Medicine* 24, 419-435 (2005).
 27. Barnhart, H.X., Song, J., and **Lyles, R.H.** “Assay Validation for Left-Censored Data”, *Statistics in Medicine* 24, 3347-3360 (2005).
 28. **Lyles, R.H.**, Allen, A.S., Flanders, W.D., Kupper, L.L., Christensen, D.L. “Inference for Case-Control Studies when Exposure Status is Both Informatively Missing and Misclassified”, *Statistics in Medicine* 25, 4065-4080 (2006).
 29. **Lyles, R.H.**, Manatunga, A.K., Moore, R.H., Bowman, F.D., and Cook, C.B. “Improving Point Predictions of Random Effects for Subjects at High Risk”, *Statistics in Medicine* 26, 1285-1300 (2007).

30. **Lyles, R.H.**, Lin, H.-M., and Williamson, J.M. “A Practical Approach to Computing Power for Generalized Linear Models with Nominal, Count, or Ordinal Outcomes”, *Statistics in Medicine* 26, 1632-1648 (2007).
31. Williamson, J.M., Lin, H.-M., **Lyles, R.H.**, and Hightower, A.W. “Power Calculations for ZIP and ZINB Models”, *Journal of Data Science* 5, 519-534 (2007).
32. **Lyles, R.H.**, Zhang, F., and Drews-Botsch, C. “Combining Internal and External Validation Data to Correct for Exposure Misclassification: A Case Study”, *Epidemiology* 18, 321-328 (2007).
33. **Lyles, R.H.**, Poindexter, C., Evans, A., Brown, M., and Cooper, C.R. “Nonlinear Model-Based Estimates of IC₅₀ for Studies Involving Continuous Therapeutic Dose-Response Data”, *Contemporary Clinical Trials* 29, 878-886 (2008).
34. Manatunga, A.K., Chen, H., Terrell, M.L., **Lyles, R.H.**, and Marcus, M. “A Longitudinal Model for Repeated Highly Skewed Outcome Data”, *Sri Lankan Journal of Applied Statistics*, 9, 39-51 (2008).
35. **Lyles, R.H.**, Moore, R.H., Manatunga, A.K., and Easley, K.A. “Covariate-Adjusted Constrained Bayes Predictions of Random Intercepts and Slopes”, *Journal of Modern Applied Statistical Methods* 8, 81-94 (2009).
36. Wannemuehler, K.A., **Lyles, R.H.**, Waller, L.A., Hoekstra, R.M., Klein, M, and Tolbert, P. “A Conditional Expectation Approach for Associating Ambient Air Pollutant Exposures with Health Outcomes”, *Environmetrics* 20, 877-894 (2009).
37. **Lyles, R.H.**, Guo, Y., and Hill, A.N. “A Fresh Look at the Discriminant Function Approach for Estimating an Adjusted Odds Ratio”, *The American Statistician* 63, 320-327 (2009).
38. Chen, H., Manatunga, A.K., **Lyles, R.H.**, Peng, L., and Marcus, M. “Flexible Modeling of Longitudinal Highly-Skewed Outcomes”, *Statistics in Medicine* 28, 3811-3828 (2009).
39. Kosinski, A.S., Chen, Y., and **Lyles, R.H.** “Sample size for evaluating a diagnostic test when the gold standard is missing at random”, *Statistics in Medicine* 29, 1572-1579 (2010).
40. Wannemuehler, K.A., **Lyles, R.H.**, Manatunga, A.K., Terrell, M.L., and Marcus, M. “Likelihood-Based Methods for Estimating the Association Between a Health Outcome and Left- or Interval-Censored Longitudinal Exposure Data”, *Statistics in Medicine* 29, 1661-1672 (2010).
41. **Lyles, R.H.** and Lin, J. “Sensitivity Analysis for Misclassification in Logistic Regression via Likelihood Methods and Predictive Value Weighting”, *Statistics in Medicine* 29, 2297-2309 (2010).
42. Moore, R.H., **Lyles, R.H.**, and Manatunga, A.K. “Empirical Constrained Bayes Predictors Accounting for Non-Detects Among Repeated Measures”, *Statistics in Medicine* 29, 2656-2668 (2010).
43. **Lyles, R.H.**, Tang, L., Superak, H.M., King, C.C., Celentano, D., Lo, Y., and Sobel, J. “Validation Data-Based Adjustments for Outcome Misclassification in Logistic Regression: An Illustration”,

- Epidemiology* 22, 589-597 (2011).
44. Zhang, Z., Liu, A., **Lyles, R.H.**, and Mukherjee, B. “Logistic regression analysis of biomarker data subject to pooling and dichotomization”, *Statistics in Medicine* 31, 2473-2484 (2012).
 45. **Lyles, R.H.**, Tang, L., Lin, J., Zhang, Z., and Mukherjee, B. “Likelihood-based methods for regression analysis with binary exposure status assessed by pooling”, *Statistics in Medicine* 31, 2485-97 (2012).
 46. Lin, C.Y., Waller, L.A., and **Lyles, R.H.** “The Likelihood Approach for the Comparison of Medical Diagnostic System with Multiple Binary Tests”, *Journal of Applied Statistics* 39, 1437-1454 (2012).
 47. Whitcomb, B., Perkins, N., Zhang, Z., Ye, A., and **Lyles, R.H.** “Assessment of Skewed Exposure in Case-Control Studies with Pooling”, *Statistics in Medicine* 31, 2461-2472 (2012).
 48. **Lyles, R.H.**, Guo, Y., and Greenland, S. “Reducing Bias and Mean Squared Error Associated with Regression-Based Odds Ratio Estimators”, *Journal of Statistical Planning and Inference* 142, 3235-3241 (2012).
 49. Hertzberg, R., Pan, Y., Li, R., Haber, L.T., **Lyles, R.H.**, Herr, D.W., Moser, V., and Simmons J.E., “A Four Step Approach to Evaluate Mixtures for Consistency with Dose Addition”, *Toxicology* 313, 134-144 (2013).
 50. **Lyles, R.H.** and Kupper, L.L. “Approximate and Pseudo-Likelihood Analysis for Logistic Regression Using External Validation Data to Model Log Exposure”, *Journal of Agricultural, Biological and Environmental Statistics* 18, 22-38 (2013).
 51. Tang, L., **Lyles, R.H.**, Ye, Y., Lo, Y., King, C.C. “Extended Matrix and Inverse Matrix Methods Utilizing Internal Validation Data when Both Disease and Exposure Status are Misclassified”, *Epidemiologic Methods* 2, 49-66 (2013). (* **Dr. Tang’s paper received the 2014 CDC/ATSDR Statistical Science Award in the Theoretical Paper Category**)
 52. Mitchell, E.M., **Lyles, R.H.**, Manatunga, A.K., Danaher, M., Perkins, N.J., Schisterman, E.F. “Regression for Skewed Biomarker Outcomes Subject to Pooling”, *Biometrics* 70, 202-211 (2014).
 53. Young, S.K., **Lyles, R.H.**, Kupper, L.L., Keys, J.R, Martin, S.L., and Costenbader, E.C. “Assortativity Coefficient-Based Estimation of Population Patterns of Sexual Mixing When Cluster Size is Informative”, *Sexually Transmitted Infections* 90, 332-336 (2014).
 54. Mitchell, E.M., **Lyles, R.H.**, Manatunga, A.K., Perkins, N.J., Schisterman, E.F. “A Highly Efficient Design Strategy for Regression with Outcome Pooling”, *Statistics in Medicine* 33, 5028-5040 (2014).
 55. Tang, L., **Lyles, R.H.**, King, C.C., Hogan, J.W., Lo, Y. “Regression Analysis for Differentially Misclassified Correlated Binary Outcomes”, *Journal of the Royal Statistical Society, Series C* 64, 433-449 (2015).
 56. Tang, L., **Lyles, R.H.**, King, C.C., Celentano, D., Lo, Y. “Binary Regression with Differentially Misclassified Response and Exposure Variables”, *Statistics in Medicine*, 34, 1605-1620 (2015).

57. Lin, J., **Lyles, R.H.** “Accounting for Informatively Missing Data in Logistic Regression by Means of Reassessment Sampling”, *Statistics in Medicine*, 34, 1925-1939 (2015).
58. Mitchell, E.M., **Lyles, R.H.**, Manatunga, A.K., Schisterman, E.F. “Semiparametric Models for a Right-Skewed Outcome Subject to Pooling”, *American Journal of Epidemiology*, 181, 541-8 (2015). (* **Dr. Mitchell’s paper was selected as one of the AJE’s top 10 Articles of 2015**).
59. Mitchell, E.M., **Lyles, R.H.**, Schisterman, E. “Positing, Fitting, and Selecting Regression Models for Pooled Biomarker Data”, *Statistics in Medicine*, 34, 2544-2558 (2015).
60. **Lyles, R.H.**, Kupper, L.L., Barnhart, H.X., Martin, S.L. “Numeric Score-Based Conditional and Overall Change-in-Status Indices for Ordered Categorical Data” , *Statistics in Medicine*, 34, 3622-3636 (2015).
61. Perkins, N.P., Mitchell, E.M., **Lyles, R.H.**, Schisterman, E.F. “Case-control Data Analysis for Randomly Pooled Biomarkers”, *Biometrical Journal*, 58, 1007-1020 (2016).
62. **Lyles, R.H.**, Van Domelen, D., Mitchell, E.M., Schisterman, E.F. “A Discriminant Function Approach to Adjust for Processing and Measurement Error When a Biomarker is Assayed in Pooled Samples”, *International Journal of Environmental Research and Public Health*, 12, 14723-14740 (2016).
63. **Lyles, R.H.**, Mitchell, E.M., Weinberg, C.R., Umbach, D.M., Schisterman, E.F. “An Efficient Design Strategy for Logistic Regression Using Outcome- and Covariate-dependent Pooling of Biospecimens Prior to Assay”, *Biometrics*, 72, 965-975 (2016).
64. Preisser, J.S., Sanders, A.E., **Lyles, R.H.** “Differential Misclassification of Disease Under Partial Mouth Sampling”, *JDR Clinical and Translational Research*, 3, 388-394 (2018).
65. Van Domelen, D.R., Mitchell, E.M., Perkins, N.J., Schisterman, E.F., Manatunga, A.K., Huang, Y., **Lyles, R.H.** “Logistic Regression With a Continuous Exposure Measured in Pools and Subject to Errors”, *Statistics in Medicine*, 37, 4007-4021 (2018).
66. Van Domelen, D.R., **Lyles, R.H.** “A Look at the Unique Identifiability of Propensity Score Calibration”, *American Journal of Epidemiology*, 188, 1397-1399.
67. Van Domelen, D.R., **Lyles, R.H.** “Formulas and Web App for Designing a Biospecimen Pooling Study to Compare Group Means”, *Epidemiology* (in press).
68. Van Domelen, D.R., Mitchell, E.M., Perkins, N.J., Schisterman, E.F., Manatunga, A.K., Huang, Y., **Lyles, R.H.** “Gamma models for Estimating the Odds Ratio for a Skewed Biomarker Measured in Pools and Subject to Errors”, *Biostatistics* (in press).

Journal Articles (Public health collaboration-oriented)

1. Chambless, L.E., McMahon, R., Finch, A., Sorlie, P., Heiss, G., **Lyles, R.**, and Wu, K. “ARIC

- Hemostasis Study--III. Quality Control”, *Thrombosis and Haemostasis*, 70(4), 588-594 (1993).
2. Stein, D.S., **Lyles, R.H.**, Graham, N.M.H., Tassoni, C.J., Margolick, J., Phair, J., Rinaldo, C., Detels, R., Saah, A., and Bilello, J. “Predicting Clinical Progression or Death in Subjects with Early Stage HIV Infection: A Comparative Analysis of Quantification of HIVRNA, Soluble TNF Type II Receptors, Neopterin, and β_2 -microglobulin”, *The Journal of Infectious Diseases*, 176, 1161-1167 (1997).
 3. Childs, E., **Lyles, R.H.**, Selnes, O.A., Mellors, J., Chen, B., and McArthur, J.C. “Plasma Viral Load and CD4 Lymphocytes as Predictive Markers for HIV-Associated Dementia and Sensory Neuropathy”, *Neurology*, 52, 607-613 (1999).
 4. Kleeberger, C.A., **Lyles, R.H.**, Rinaldo, C.R., Phair, J.P., Margolick, J.B., and Giorgi, J.V. “Viability and Function of Stored Mononuclear Leukocyte Specimens from a Multicenter Study: An Approach to Quality Assurance”, *Clinical and Laboratory Diagnostic Immunology*, 6, 14-19 (1999).
 5. **Lyles, R.H.**, Chu, C., Mellors, J., Margolick, J., Detels, R., Giorgi, J., Al-Hboul, Q., and Phair, J.P. “Prognostic Value of HIV RNA in the Natural History of *Pneumocystis carinii* Pneumonia, Cytomegalovirus, and *Mycobacterium avium* Complex Disease”, *AIDS*, 13, 341-350 (1999).
 6. Sacktor, N.C., **Lyles, R.H.**, Skolasky, R.L., Anderson, D.E., McFarlane, G., Miller, E.N., Selnes, O.A., Becker, J.T., Cohen, B., Wesch, J., and McArthur, J.C. “Combination Antiretroviral Therapy Improves Psychomotor Performance in HIV Seropositive Homosexual Men”, *Neurology*, 52, 1640-1647 (1999).
 7. Fleuridor, R., **Lyles, R.H.**, and Pirofski, L. “Qualitative and Quantitative Differences in the Serum Antibody Profiles of HIV-infected Persons with and without *Cryptococcus neoformans* Meningitis”, *The Journal of Infectious Diseases*, 180, 1526-1535 (1999).
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2. **Lyles, R.H.** “Estimating Partial Correlations Between Logged HIV-RNA Measurements Subject to Detection Limits”, in *Quantitative Methods for HIV/AIDS Research, 1st edition*, 2018, Taylor and Francis, New York. Edited by C. Chan, M.G. Hudgens, and S.-C. Chow (in press).

Letters and Other Publications

1. **Lyles, R.H.** “Contributions to the Modeling and Assessment of Occupational Exposures and Their Health-Related Effects”, Ph.D. dissertation, Department of Biostatistics, The University of North Carolina at Chapel Hill (1996).
2. **Lyles, R.H.** “A Comparison of Estimators for the Reliability Coefficient Under Two Models with Application to Clinical Chemistry Laboratory Quality Control”, M.S. thesis, Department of Biostatistics, The University of North Carolina at Chapel Hill (1991).
3. Rappaport, S.M., Symanski, E., **Lyles, R.**, and Kromhout, H. *American Industrial Hygiene Association Journal*, 55, 875-877 (1994) (Letter to the editor).
4. Rappaport, S.M., Kupper, L.L., **Lyles, R.**, Symanski, E., Tornero, R., Wei, J., and Yu, R.C. “A Protocol for Assessing Occupational Exposures in the Nickel-Producing Industry”, Report to Nickel Producers’ Environmental Research Association (NiPERA), Inc., December 1996.
5. **Lyles, R.** “Model-Based Latent Variable Problems with Epidemiologic Applications”, *Statistics in Epidemiology Report* (ASA newsletter, Section on Statistics in Epidemiology, Spring, 1997).
6. Rappaport, S.M., Kupper, L.L., and **Lyles, R.H.** *Annals of Occupational Hygiene*, 42, 417-420 (1998) (Letter to the editor).
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10. **Lyles, R.H.** “Atlanta for the Museum and Gallery Enthusiast”, *Amstat News*, April, 2001 (for Local Assistance Committee, 2001 Joint Statistical Meetings).
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 16. **Lyles, R.H.** Review of *Regression Models in Biostatistics: Linear, Logistic, Survival and Repeated Measures Models* by E. Vittinghoff, D.V. Glidden, S.C. Shiboski and C.E. McCulloch. *Journal of the American Statistical Association*, 101, 403-404 (2006).
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Articles Submitted for Review

1. Jo, J., Paige-Rolle, C., **Lyles, R.**, Sheth, A.N., Kelley, C.F., Holland, D.P. “Implementation of HIV Pre-Exposure Prophylaxis in the County Health Department Setting in Atlanta, GA”, submitted.
2. **Lyles, R.H.**, Wilkinson, A.L., Taylor, A.W., Jambai, A., Kaiser, R. “One Fish, Two Fish: Improvements in Single Capture-Recapture Point and Interval Estimates Based on the Multinomial Model”, submitted.
3. **Lyles, R.H.**, Bassat, Q., Mandomando, I., Sacoor, C., Akelo, V., Onyango, D., Zielinski-Gutierrez, E., Taylor, A.W. “On Extrapolating Gold Standard CHAMPS Cause of Death Designations to Broader Representative Populations”, submitted.
4. **Lyles, R.H.**, Weiss, P., Waller, L.A. “Calibrated Bayesian Credible Intervals for a Binomial Proportion”, submitted.

TEACHING EXPERIENCE

Vanderbilt University, Nashville, TN (semester system)

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Sept.-Dec. 1987	Introductory Calculus (Dept. of Mathematics)
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The University of North Carolina, Chapel Hill, NC (semester system)

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Jan.-May 1992	Intro. to Probability and Statistics, BIOS 110 (Biostatistics)
Sept.-Dec. 1993	Applied Regression Analysis, BIOS 145 (Biostatistics)

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	<i>Laboratory Instructor, Department of Epidemiology:</i>
Sept.-Oct. 1996	Principles of Epidemiology, EPI 340.601
Jan.-Mar. 1997	Cohort Studies: Design, Analysis and Applications, EPI 340.603
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	<i>Faculty Advisor:</i>
Jan.-Mar. 1998	Design and Applications of Case-Control Studies, EPI 340.604
	<i>Invited Lecturer:</i>
Jan.-Mar. 1998	Analytical Issues in Infectious Disease Epidemiology, EPI 340.727
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Spring 1998	Reiko Sato, Ph.D. Candidate (Epidemiology)
Emory University, Atlanta, GA (semester system)	
	<i>Primary Instructor:</i>
Fall 1999	Statistical Methods I, BIOS 500, Section 01P (Biostatistics; 108 students)
Spring 2000	Statistical Methods II, BIOS 501, Section 01P (Biostatistics; 48 students)
Spring 2001	Seminar in Biostatistics, BIOS 590R (Biostatistics)
Fall 2001	Biostatistical Methods I, BIOS 506 (Biostatistics; 4 Ph.D. students)
Spring 2002	Statistical Methods II, BIOS 501, Section 01P (Biostatistics; 62 students)
Spring 2003	Seminar in Biostatistics, BIOS 590R (Biostatistics)
Spring 2004	Applied Linear Models, BIOS 507 (Biostatistics; 13 students)
Spring 2005	Applied Linear Models, BIOS 507 (Biostatistics; 18 students)
Spring 2005	Directed Study on Methods to Adjust for Mismeasured Exposure Data (Nyasha Skerrette, Ph.D. student)
Fall 2005	Directed Study on Methods to Adjust for Mismeasured Exposure Data (Jieqiong Bao, Ph.D. student)
Spring 2006	Applied Linear Models, BIOS 507 (Biostatistics; 23 students)
Spring 2006	Statistical Analysis with Missing and Mismeasured Data, BIOS 736 (Biostatistics, w/ Dr. Eugene Huang; 11 Ph.D. students)
Spring 2007	Applied Linear Models, BIOS 507 (Biostatistics; 9 students)
Spring 2007	Guest Lecturer (2 lectures), New Topics in Epidemiologic Methods, EPID 591K (Epidemiology; 5 Ph.D. students)
Spring 2008	Applied Linear Models, BIOS 507 (Biostatistics; 18 students)
Spring 2008	Statistical Analysis with Missing and Mismeasured Data, BIOS 736 (Biostatistics, w/ Dr. Eugene Huang; 6 Ph.D. students)
Spring 2009	Applied Linear Models, BIOS 507 (Biostatistics; 8 students)
Spring 2009	New Topics in Epidemiologic Models, EPI 591K (Epidemiology; 5 Ph.D. students; co-taught with Drs. Kyle Steenland and Lance Waller)
Spring 2010	Applied Linear Models, BIOS 507 (Biostatistics; 32 students)
Fall 2010	Statistical Analysis with Missing and Mismeasured Data, BIOS 736 (Biostatistics, w/ Dr. Eugene Huang; 11 Ph.D. students)
Spring 2011	Applied Linear Models, BIOS 507 (Biostatistics; 35 students)
Spring 2012	Applied Linear Models, BIOS 507 (Biostatistics; 37 students)
Spring 2013	Applied Linear Models, BIOS 507 (Biostatistics; 29 students)
Spring 2014	Applied Linear Models, BIOS 507 (Biostatistics; 38 students)
Fall 2014	Statistical Analysis with Missing and Mismeasured Data, BIOS 736 (Biostatistics, w/ Dr. Eugene Huang; 10 Ph.D. students)

Spring 2015	Applied Linear Models, BIOS 507 (Biostatistics; 39 students)
Spring 2015	Biostatistical Methods II, BIOS 591P (151 Epidemiology students)
Spring 2016	Applied Linear Models, BIOS 507 (Biostatistics; 43 students)
Fall 2017	Statistical Analysis with Missing and Mismeasured Data, BIOS 736 (Biostatistics, w/ Dr. Eugene Huang; 11 Ph.D. students)
Spring 2018	Applied Linear Models, BIOS 507 (Biostatistics; 34 students)
Spring 2018	Biostatistical Methods II, BIOS 591P (134 Epidemiology students)
Spring 2019	Applied Linear Models, BIOS 507 (Biostatistics; 38 students)

Primary Thesis or Dissertation Advisor:

1999	Dongjie Fan, M.S.P.H., 1999 (Biostatistics)
2001	Bei Ding, M.S.P.H., 2001 (Biostatistics)
2006	Liping Zhao, M.P.H., 2006 (Biostatistics)
2006	Fan Zhang M.P.H., 2006 (Biostatistics)
2009-2010	Svetlana Masalovich, M.S., 2010 (Biostatistics)
2011-2012	Xiaojing Wang, M.S.P.H., 2012 (Biostatistics and Bioinformatics)
2011-2012	Chengyin Jin, M.S., 2012 (Computer Science w/ Biostatistics Emphasis)
2016-2017	Gavin Tian, M.S.P.H., 2017 (Biostatistics and Bioinformatics)
2016-2017	Fancy Fang, M.S.P.H., 2017 (Biostatistics and Bioinformatics)
2017-2018	Guandong Yang, M.S.P.H., 2018 (Biostatistics and Bioinformatics)
2018	Daniel Yoo, M.S.P.H. (Biostatistics and Bioinformatics; Co-Chair with Dr. Renee Moore)
2002-2006	Renee Moore, Ph.D., 2006 (Biostatistics; Dissertation: “Prediction of Random Effects When Data are Subject to a Detection Limit”)
2001-2007	Kathleen Wannemuehler, Ph.D., 2007 (Biostatistics; Dissertation: “Likelihood-based Measurement Error Adjustments in Occupational and Environmental Exposure Studies”)
2005-2008	Chengxing Lu, Ph.D., 2008 (Biostatistics; Dissertation: “Statistical Methods to Adjust for Misclassified Repeated Exposures in Modeling Disease-Exposure Associations”)
2008-2012	Ji Lin, Ph.D., 2012 (Biostatistics and Bioinformatics; Dissertation: “Likelihood Based Methods in Logistic Regression with Missing Data”)
2009-2012	Li Tang, Ph.D., 2012 (Biostatistics and Bioinformatics; Dissertation: “Analysis of Data with Complex Misclassification in Response or Predictor Variables by Incorporating Validation Subsampling”)
2011-2013	Emily Mitchell, Ph.D., 2013 (Biostatistics and Bioinformatics; Dissertation: “Regression Models for a Continuous Outcome Subject to Pooling”)
2014-2018	Dane Van Domelen, Ph.D. Candidate (Biostatistics and Bioinformatics; Dissertation: “Measurement Error Methods for Unmeasured Confounding and Pooling”)

Thesis Committees:

2000	Ali S. Khan, M.P.H. (Biostatistics)
2000	Lisa Farmer, M.S.P.H. (Biostatistics)
2000	Catherine Lindsey, M.P.H. (Epidemiology)

2001	Khanh V.N. Tran, M.S.P.H. (Biostatistics)
2002	DeMarc Hickson, M.S. (Biostatistics)
2002	Zahava Berkowitz, M.S.P.H. (Biostatistics)
2004	Metrecia L. Terrell, M.S.P.H. (Biostatistics)
2004	Jun Zhang, M.S.P.H. (Biostatistics)
2007	Nyasha Skerrette, M.S. (Biostatistics)
2008	Greg Schwartz, M.S. (Biostatistics)
2017	Wenyi Fan, M.S.P.H. (Biostatistics and Bioinformatics)
2017	Chris Locandro, M.S.P.H. (Biostatistics and Bioinformatics)
2018	Alexia Couture, M.S.P.H. (Biostatistics and Bioinformatics)
2019	Allyson Mateja, M.S.P.H. (Biostatistics and Bioinformatics)
2019	Yuan Zhao, M.P.H. (Biostatistics and Bioinformatics)

Doctoral Committees:

1999-2001	Douglas J. Taylor, Ph.D., Univ. of North Carolina at Chapel Hill
2002-2003	Jingli Song, Ph.D. (Biostatistics)
2003-2005	Ying Chen, Ph.D. (Biostatistics)
2003-2005	Carol Lin, Ph.D. (Biostatistics)
2003-2006	Daisy Christensen, Ph.D. (Epidemiology)
2003-2007	Huichao Chen, Ph.D. (Biostatistics)
2004-2006	Aki Morikawa, Ph.D. (Epidemiology)
2007-2009	Megan Price, Ph.D. (Biostatistics)
2009-2010	Doris Gao, Ph.D. (Biostatistics and Bioinformatics)
2010-2011	Ming Zhu, Ph.D. (Biostatistics and Bioinformatics)
2009-2011	Kari Hart, Ph.D. (Biostatistics and Bioinformatics)
2009-2011	Tielin Qin, Ph.D. (Biostatistics and Bioinformatics)
2010-2013	Courtney McCracken, Ph.D. (Biostatistics; Georgia Health Sciences University)
2012-2015	Lauren Christiansen-Lindquist, Ph.D. (Epidemiology)
2013-2015	Shuling Liu, Ph.D. (Biostatistics and Bioinformatics)
2013-2015	Pallavi Mishra, Ph.D. (Biostatistics and Bioinformatics)
2013-2015	Lucy Liu, Ph.D. (Biostatistics and Bioinformatics)
2014-2016	Dominique Watson Hodge, Ph.D. (Biostatistics and Bioinformatics)
2014-2017	Melanie Jacobson, Ph.D. (Epidemiology)
2016-2017	Yi Deng, Ph.D. (Biostatistics and Bioinformatics)
2017-2019	Jay Soh, Ph.D. (Biostatistics and Bioinformatics)
2017-present	Meng Shi, Ph.D. Candidate (Biostatistics and Bioinformatics)
2018-present	Brian Conroy, Ph.D. Candidate (Biostatistics and Bioinformatics)
2018-present	Grace Kim, Ph.D. Candidate (Biostatistics and Bioinformatics)
2018-present	Nancy Murray, Ph.D. Candidate (Biostatistics and Bioinformatics)

SELECTED FUNDING AND RESEARCH GRANT PARTICIPATION

Emory University Funding

January 2000-January 2001: Emory University Research Committee (URC) grant award:
 “Estimation of Correlation Coefficients Involving Laboratory Assay Data Subject to Left Censoring”

(R.H. Lyles, principal investigator)

1999-2004: Winship Cancer Institute Operational Account (WCI)
(Role: Provide statistical guidance and support to cancer researchers at Emory University)

External Funding, Biostatistical Methodology (PI or co-PI)

(Lyles, PI)	7/01/01-6/30/03	25%
American College of Epidemiology	\$49,052	
Analytic Approaches for Missing and Mismeasured Exposure Data in the NHEXAS and SOPHIA Studies		

(Manatunga, PI; Lyles, Co-PI)	7/01/03-6/30/07	30%
NIH R01		
Analytical Methods: Environmental/Reproductive Epidemiology		

(Lyles, PI)	9/24/10-9/23/13	25%
NIH RC4 (American Recovery and Reinvestment Act)		
Accessible Handling of Misclassified or Missing Binary Variables in CER Studies		

(Lyles, Manatunga, MPIs)	9/01/08-6/30/14	25%
NIH R01 renewal		
Analytical Methods: Environmental/Reproductive Epidemiology		

Collaborative Core Involvement

(Stephens, PI)	09/17/07-05/31/19	15%
NIH UL1		
Atlanta Clinical and Translational Science Institute (ACTSI)		

(Del Rio, PI)	08/01/12-07/31/19	22%
NIH/NIAID P30		
Centers for AIDS Research (CFAR)		

Selected Prior Research Grant Funding (Johns Hopkins University)

March 1996-December 1998

Center for the Analysis and Management of the MACS Data (CAMACS)

4/1/95-3/31/99, NIH/NIAID, 60% funding

Principal Investigator: Alvaro Muñoz

Main Objective: To operate as the center for the analysis and management of the data from the Multicenter AIDS Cohort Study.

October 1997-December 1998

WIHS Data Management and Analysis Center (WDMAC)

10/97-10/02, NIAID/NIH, 40% funding

Principal Investigator: Alvaro Muñoz

Co-Principal Investigator: Stephen Gange

Main Objective: To establish a Women's Interagency HIV Study (WIHS) Data Management and Analysis Center (WDMAC) to provide leadership in data management, study coordination, and analytical methodology.

ABSTRACTS AND SELECTED PRESENTATIONS (*denotes presenting author)

1. **Lyles, R.H.***, Kupper, L.L., and Rappaport, S.M. "Assessing Compliance of Individuals' Mean Exposures to a Standard via the Balanced One-Way Random Effects ANOVA Model", Joint Statistical Meetings of ASA and Biometric Society, Toronto, August, 1994.
2. **Lyles, R.H.*** and Kupper, L.L. "A Measurement Error Problem in Linear Regression with Industrial Hygiene Applications", Joint Statistical Meetings of ASA and Biometric Society, Orlando, FL, August, 1995.
3. **Lyles, R.H.***, Kupper, L.L., and Rappaport, S.M. "On Prediction of Lognormal-Scale Mean Exposure Levels in Occupational Epidemiologic Studies", Joint Statistical Meetings of ASA and Biometric Society, Chicago, IL, August, 1996.
4. **Lyles, R.H.***, Muñoz A., Xu, J., Taylor, J., and Chmiel, J. "A Measurement Error-Adjusted Analysis Relating CD4 Decline Around HIV-1 Seroconversion to Prior CD4 Level and Stability", The Ninth B. Frank Polk HIV Research Symposium, The Johns Hopkins University, Baltimore, MD, April, 1997.
5. **Lyles, R.H.*** "Examples of Measurement Error Adjustments for Relating Continuous Outcomes to Exposure in Cohort Studies", Seminar Series, Department of Epidemiology, The Johns Hopkins University, April, 1997.
6. **Lyles, R.H.***, Muñoz A., and Xu, J. "A Measurement Error-Adjusted Analysis with Latent Biomarker Variability as a Covariate", Joint Statistical Meetings of ASA and Biometric Society, Anaheim, CA, August, 1997.
7. **Lyles, R.H.***, Chu, C., Margolick, J., Detels, R., Giorgi, J., Al-Shboul, Q., and Phair, J.P. "HIV RNA and CD4 Lymphocyte Count Relate Differently to the Occurrence of PCP, CMV, and MAC Disease", The 5th Conference on Retroviruses and Opportunistic Infections, Chicago, IL, February, 1998.
8. **Lyles, R.H.***, Muñoz A., Margolick, J.B., Giorgi, J.V., Chen, Y., Phair, J.P., and Mellors, J.W. "HIV-RNA and CD4+ Decline without Therapy: Reference Values to Gauge Effectiveness of Antiretrovirals", The Tenth B. Frank Polk HIV Research Symposium, The Johns Hopkins University, Baltimore, MD, April, 1998.
9. Fleuridor, R.*, Jefferis, R., Mageed, R., **Lyles, R.**, and Pirofski, L. "Isotypic and Idiotypic Analysis of Sera from Individuals with and without Cryptococcal Meningitis", Abstract # 13008, 98th General Meeting of the American Society for Microbiology, Atlanta, GA, May, 1998.
10. Sacktor, N.C.*, Skolasky, R.L., **Lyles, R.H.**, McFarlane, G., Anderson, D.E., Miller, E.N., Selnes, O.A., Becker, J.T., Wesch, J., and McArthur, J.C. "Highly Active Antiretroviral Therapy (HAART) Improves Cognitive Impairment in HIV+ Homosexual Men", *J. Neurovirology*, 1998, 4: 365.
11. Sacktor, N.C.*, Skolasky, R.L., Esposito, D., **Lyles, R.**, McFarlane, G., Nance-Sproson, T., Selnes, O., and McArthur, J.C. "Combination Therapy Including Protease Inhibitors Improves Psychomotor Speed Performance in HIV Infection", *Neurology*, 1998, 50: A248-249.

12. Muñoz A., **Lyles, R.H.***, Margolick, J.B., Giorgi, J.V., Chen, Y., Phair, J.P., and Mellors, J.W. “HIV-RNA and CD4+ Decline without Therapy: Reference Values to Gauge Effectiveness of Antiretrovirals”, Abstract # 12127, The 12th World AIDS Conference, Geneva, June-July, 1998.
13. **Lyles, R.H.***, Tang, A.M., Mellors, J., Margolick, J.B., Visscher, B.R., Phair, J.P., and Graham, N.M.H. “HIV RNA, CD4+Cell Count, and Immune Activation Markers Predict HIV-Related Weight Loss Prior to AIDS in the Multicenter AIDS Cohort Study (MACS)”, Abstract # 32167, The 12th World AIDS Conference, Geneva, June-July, 1998.
14. **Lyles, R.H.*** and Xu, J. “Classifying Individuals Based on Predictors of Random Effects”, Joint Statistical Meetings of ASA and Biometric Society, Dallas, TX, August, 1998.
15. **Lyles, R.H.** and McFarlane, G*. “Adjusting for Measurement Error in the Initial Level and Rate of Change of an Exposure Variable”, Joint Statistical Meetings of ASA and Biometric Society, Dallas, TX, August, 1998.
16. Sacktor, N.C.* , **Lyles, R.H.**, McFarlane, G., Skolasky, R.L., Kleeberger, C., Becker, J.T., Cohen, B., Wesch, J., Miller, E.N., and McArthur, J.C. “The Changing Incidence of HIV-1-Related Neurological Diseases: 1990-1997”, The 6th Conference on Retroviruses and Opportunistic Infections, Chicago, IL, February, 1999.
17. **Lyles, R.**, Muñoz, A., Bazmi, H., Yamashita, T., Detels, R., Rinaldo, C., Phair, J., Margolick, J., Mellors, J.* “Natural History of HIV-1 Viremia After Seroconversion in the Multicenter AIDS Cohort Study”, 6th Conference on Retroviruses and Opportunistic Infections, Chicago, IL, February, 1999.
18. Sacktor, N.C.* , **Lyles, R.H.**, McFarlane, G., Skolasky, R.L., Kleeberger, C., Becker, J.T., Cohen, B., Wesch, J., Miller, E.N., McArthur, J.C., and The Multicenter AIDS Cohort Study. “HIV-1-Related Neurological Disease Incidence Changes in the Era of Highly Active Antiretroviral Therapy”, 51st Meeting of The American Academy of Neurology, Toronto, Canada, April, 1999.
19. **Lyles, R.H.*** “Random Regression Models for HIV RNA Data Subject to Left Censoring and Informative Drop-outs”, Emory University Biostatistics Seminar Series, April, 1999.
20. **Lyles, R.H.*** and Kupper, L.L. “A Note on Confidence Interval Estimation in Measurement Error Adjustment”, Joint Statistical Meetings of ASA and Biometric Society, Baltimore, MD, August, 1999.
21. Lyles, C.M.* , **Lyles, R.H.**, and Taylor, D.J. “Random Regression Models for HIV RNA Data Subject to Left Censoring and Informative Drop-outs”, Joint Statistical Meetings of ASA and Biometric Society, Baltimore, MD, August, 1999.
22. **Lyles, R.H.*** “An Overview of Measurement Error Issues in Epidemiology”, 50th Anniversary Symposium, The University of North Carolina Department of Biostatistics, Chapel Hill, NC, October, 1999 (invited).
23. Cook, C.B.* , **Lyles, R.H.**, Gallina, D.L., El-Kebbi, I.M., Ziemer, D.C., Dunbar, V.G., Phillips, L.S. “Non-HDL Cholesterol can be Used to Predict LDL Cholesterol in Urban African American Patients with Type 2 Diabetes. 82nd Annual Meeting of the Endocrine Society, Abstract 1798, 2000.
24. **Lyles, R.H.*** and Fan, D. “Correlation Coefficient Estimation Involving a Left Censored Laboratory Assay Variable”, Joint Statistical Meetings of ASA/Biometric Society, Indianapolis, IN, August, 2000.
25. **Lyles, R.H.*** “An Alternative Parametric Approach for Discrete Missing Data Problems”, Emory University Biostatistics Seminar Series, September, 7th, 2000.
26. **Lyles, R.H.** and Williams, J.K.* “Correlating Two Viral Load Assays with Known Detection Limits”, 8th

Biennial CDC/ATSDR Symposium on Statistical Methods, Atlanta, GA, January, 2001.

27. Waller, L.* , **Lyles, B.*** and Bowman, D.* “How to Interview for a Job in Academia”, Career Planning and Information Seminar, Emory Department of Biostatistics, March 6th, 2001.
28. **Lyles, R.H.***, Taylor, D.J., Hanfelt, J.J. and Kupper, L.L. “An Alternative Parametric Approach for Discrete Missing Data Problems”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Charlotte, NC, March, 2001.
29. Taylor, D.J.* , Hanfelt, J.J., Kupper, L.L. and **Lyles, R.H.** “A Mixture Model for Occupational Exposure Mean Testing with Data Censored Below a Limit of Detection”, International Biometric Society (ENAR) Spring Meeting, Charlotte, NC, March, 2001.
30. **Lyles, R.H.*** “Random Regression Models for HIV RNA Data Subject to a Limit of Detection and/or Informative Drop-out”, University of Alabama-Birmingham Department of Biostatistics Seminar Series, May, 2001 (invited).
31. Allen, A.S.* and **Lyles, R.H.** “Missing Data in the 2x2 Table: Patterns and Likelihood-Based Analysis for Cross-sectional Studies”, Joint Statistical Meetings of ASA and Biometric Society, Atlanta, GA, August, 2001.
32. **Lyles, R.H.*** and Allen, A.S. “Missing Data in the 2x2 Table: Patterns and Likelihood-Based Analysis for Case-Control and Cohort Studies”, 129th Annual Meeting of the American Public Health Association (APHA), Atlanta, GA, October, 2001.
33. Wood, W.C.* , Anderson, M., **Lyles, R.H.**, Styblo, T.M., Murray, D., Staley, C., Yang, L., and Carlson, G. “Can We Select Which Patients With Small Breast Cancers Should Receive Adjuvant Chemotherapy?”, Annual Meeting of the Southern Surgical Association, Hot Springs, VA, Dec., 2001.
34. Wiener, J.* , **Lyles, R.H.**, Abrams, E.J., Palumbo, P., Nesheim, S., Vink, P., Bulterys, M. “Early Dynamics of RNA Viral Load Levels in HIV-Infected Infants and Their Correlations to Maternal RNA Viral Load Around Delivery”, The 9th Conference on Retroviruses and Opportunistic Infections, Seattle, WA, February, 2002 (poster presentation).
35. Song, J.* , Barnhart, H.X. and **Lyles, R.H.** “A GEE Approach for Estimating the Correlation Between Left-Censored Variables”, International Biometric Society (ENAR) Spring Meeting, Arlington, VA, March, 2002.
36. Carlson, G.W.* , Styblo, T.M., **Lyles, R.**, Bostwick, J., Murray, D.R., Staley, C.A., Wood, W.C. “Local Recurrence After Skin Sparing Mastectomy: Tumor Biology or Surgical Conservation?”, 55th Annual Cancer Symposium of the Society of Surgical Oncology, Washington, D.C., March, 2002.
37. Carlson, G.W.* , Murray, D., **Lyles, R.**, Hestley, A., Chen, S., Staley, C.A., Cohen, C. “The Amount of Metastatic Melanoma in a Sentinel Lymph Node: Does It Have Prognostic Significance?”, 55th Annual Cancer Symposium of the Society of Surgical Oncology, Washington, D.C., March, 2002.
38. Carlson, G.W.* , Murray, D.R., Hestley, A., Staley, C.A., **Lyles, R.** “Sentinel Lymph Node Mapping for Thick (≥ 4 mm) Melanoma: Should We Be Doing It?”, 55th Annual Cancer Symposium of the Society of Surgical Oncology, Washington, D.C., March, 2002.
39. Subramaniam, K.* , Segal, R., **Lyles, R.**, Barradas-Rodriguez, M., Pirofski, L. “HAART May Reconstitute Certain V_H3-Positive Pneumococcal Capsular Polysaccharide Responses”, 102nd meeting of the American Society of Microbiology, Salt Lake City, UT, May, 2002 (poster).

40. **Lyles, R.H.***, Lin, H-M., and Williamson, J. “Design and Analytic Considerations for Single-armed Studies Subject to Outcome Misclassification”, Joint Statistical Meetings of ASA and Biometric Society, New York, NY, August, 2002.
41. Benning, L. *, **Lyles, R.H.**, and Gange, S. “Methods for Comparing Correlations Involving Left-censored Longitudinal Viral Load Measurements”, Joint Statistical Meetings of ASA and Biometric Society, New York, NY, August, 2002.
42. Song, J.*, Barnhart, H., and **Lyles, R.H.**. “Estimating the Correlation Between Left-censored Variables: Comparison Between GEE Approach and MLE Approach”, Joint Statistical Meetings of ASA and Biometric Society, New York, NY, August, 2002.
43. Lin, H-M.* , **Lyles, R.H.**, Williamson, J., and Kunselman, A. “Estimation of the Intervention Effect in a Nonrandomized Study with a Mismeasured Binary Response”, Joint Statistical Meetings of ASA and Biometric Society, New York, NY, August, 2002.
44. Rhee, M.K. *, Cook, C.B., Boyd, B., Panayioto, R.M., Berkowitz, K.J., Broussard, S.D., El-Kebbi, I.M., **Lyles, R.H.**, Jaret, C., Dunbar, V.G., Ziemer, D.C., Gallina, D.L., Phillips, L.S. “Socioeconomic and Health Care Access Disparities Affect Glycemic Severity in Urban Diabetes Patients”, *Diabetes* 51 (Suppl. 2): 2213, June, 2002 (meeting abstract).
45. **Lyles, R.H.***, Lin, H-M., and Williamson, J. “Analytic and Study Design Considerations for Single-Armed Trials Involving a Repeated and Mismeasured Binary Outcome”, University of North Carolina Department of Biostatistics, January, 2003 (invited).
46. Wannemuehler, K.A.* and **Lyles, R.H.** “Measurement Error Adjustment in Occupational Health Studies While Accounting for Nondetectable Exposures”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Tampa, FL, April, 2003.
47. Carlson, G.W.* , Murray, D.R., **Lyles, R.H.**, Hestley, A., Cohen, C. “Sentinel Lymph Node Biopsy in the Management of Cutaneous Head and Neck Melanoma”, 82nd Annual Meeting of the American Association of Plastic and Reconstructive Surgeons, Baltimore, MD, May, 2003.
48. Kochhar, R. *, Howard, E.M., Tadros, T.S., Birdsong, G.G., Lyles, R.H., Lau, S.K. “Correlation of p53, her2 neu, vascular endothelial growth factor (VEGF) and e-cadherin expression in adenocarcinoma of breast”, 94th Annual Meeting of the American Association for Cancer Research, Washington, D.C., July, 2003.
49. **Lyles, R.H.***, Manatunga, A.K., Moore, R.H., Bowman, F.D. “Improving Point Predictions of Random Effects for Subjects at High Risk: A Case Study”, Joint Statistical Meetings of ASA and Biometric Society, San Francisco, CA, August, 2003.
50. **Lyles, R.H.***, Williamson, J.M., Lin, H.-M., Heilig, C. “Addressing McNemar’s Test Hypothesis When the Primary Data are Misclassified”, Annual Meeting of the American College of Epidemiology, Chicago, IL, September, 2003 (invited).
51. Mendrinos, S.E.* , Amin, M.B., Lim, S.D., Herrera, C.M., Kwee, L.C., **Lyles, R.**, Srigley, J.R. “Predictive Value of Pathologic Parameters of High-Grade Prostatic Intraepithelial Neoplasia (HGPIN) in the Initial Biopsy for the Subsequent Detection of Prostatic Carcinoma (PCa)”, Annual Meeting of the US and Canadian Academy of Pathology (USCAP), Vancouver, British Columbia, March, 2004.
52. Moore, R.H.* , **Lyles, R.H.**, Manatunga, A.M. “Constrained Bayes Estimates of Random Effects When Data are Subject to a Detection Limit”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Pittsburgh, PA, March, 2004.

53. Barnhart, H.X.* , Song, J., **Lyles, R.** “Assay Validation with Censored Data”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Pittsburgh, PA, March, 2004.
54. Lin, H-M.* , **Lyles, R.H.**, Williamson, J. “Bias in a Placebo-controlled Study Due to Mismeasurement of Disease Status and Regression Effect”, Joint Statistical Meetings of ASA and Biometric Society, Toronto, Canada, August, 2004.
55. **Lyles, R.H.***, Allen, A.S., Flanders, W.D., Kupper, L.L., Christensen, D.L. “Odds Ratio Estimates for Case-control Studies Subject to Informatively Missing and Misclassified Exposure”, Joint Statistical Meetings of ASA and Biometric Society, Toronto, Canada, August, 2004.
56. **Lyles, R.H.***, Williamson, J.M., Lin, H.-M., and Heilig, C.M. “Extending McNemar’s Test: Estimation and Inference When Paired Binary Outcome Data are Misclassified”, Department of Mathematics and Statistics, Georgia State University, September, 2004 ([invited](#)).
57. **Lyles, R.H.*** “Extending McNemar’s Test: Estimation and Inference When Paired Binary Outcome Data are Misclassified”, Emory University Biostatistics Seminar Series, September, 22nd, 2004.
58. **Lyles, R.H.*** “Improving Point Predictions of Random Effects for Subjects at High Risk”, The University of South Carolina Departments of Epidemiology/Biostatistics and Statistics, October 28th, 2004 ([invited](#)).
59. Chen, H.* , Manatunga, A.K., and **Lyles, R.H.** “A Model for Highly Skewed and Rounded Repeated Measures Data”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Austin, TX, March, 2005 (contributed poster).
60. Moore, R.H.* , **Lyles, R.H.**, Manatunga, A.M. “Prediction of Random Effects When Data are Subject to a Detection Limit”, Infinite Possibilities Conference, Atlanta, GA, August, 2005.
61. Manatunga, A.K.* , Schmotzer, B., **Lyles, R.H.**, Guo, Y., Small, C., Marcus, M. “Modeling Menstrual Length and Reproductive Outcomes”, Joint Statistical Meetings of ASA and Biometric Society, Minneapolis, MN, August, 2005.
62. Lin, C.Y.* , Waller, L.A., **Lyles, R.H.** “Statistical Issues in Designing and Optimal Detection/Diagnostic System with Multiple Tests”, Topic Contributed Session, Joint Statistical Meetings of ASA and Biometric Society, Minneapolis, Minnesota, August, 2005.
63. Moore, R.H., **Lyles, R.H.**, Manatunga, A.K. “Prediction of Random Intercepts and Slopes when Data are Subject to a Detection Limit”, Joint Statistical Meetings of ASA and Biometric Society, Minneapolis, Minnesota, August, 2005.
64. **Lyles, R.H.***, Williamson, J.M., and Lin, H.-M. “A Practical Approach to Computing Power for Generalized Linear Models with Nominal, Count, or Ordinal Outcomes”, Emory University Biostatistics Seminar Series, October, 13th, 2005.
65. Lin, C.Y.* , Waller, L.A., **Lyles, R.H.**, and Ryan, P.B. “Statistical Issues in Designing an Optimal Detection System with Multiple Sensors”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Tampa, FL, March, 2006 ([invited](#)).
66. **Lyles, R.H.***, Lin, H.-M., and Williamson, J.M. “A Practical Approach to Computing Power for Generalized Linear Models with Nominal, Count, or Ordinal Outcomes”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Tampa, FL, March, 2006.

67. Lu, C.* and **Lyles, R.** “Analysis of a Disease and Probability of Exposure Association Using a Replicated Error-Prone Exposure Assessment”, Joint Statistical Meetings of ASA and Biometric Society, Seattle, Washington, August, 2006.
68. Chen, H.* , Manatunga, A.K., **Lyles, R.**, and Marcus, M. “A Latent Model for Highly Skewed and Grouped Data”, Joint Statistical Meetings of ASA/Biometric Society, Seattle, August, 2006.
69. **Lyles, R.H.***, Manatunga, A.K., Moore, R., and Marcus, M. “Predicting Exposure at a Specified Time Based on an Extended Randomized Regression Model for Interval Censored Data”, Joint Statistical Meetings of ASA and Biometric Society, Seattle, Washington, August, 2006.
70. Lu, C.* and **Lyles, R.H.** “Analysis of a Disease and Probability of Exposure Association Using a Replicated Error-Prone Exposure Assessment”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Atlanta, GA, March, 2007.
71. Chen, H.* , Manatunga, A.K., **Lyles, R.H.**, Peng, L., and Marcus, M. “Flexible Modeling of Exposure Data with Informative Number of Repeated Measurements”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Atlanta, GA, March, 2007.
72. Moore, R.* , **Lyles, R.H.**, Manatunga, A.K., and Easley, K.A. “Constrained Bayes Prediction of Left-Censored HIV RNA Levels at a Meaningful Time Point”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Atlanta, GA, March, 2007.
73. **Lyles, R.H.***, Wannemuehler, K., Manatunga, A.K., Moore, R.H., and Marcus, M. “Relating a Health Outcome to Subject-Specific Characteristics Based on Left- or Interval-Censored Longitudinal Exposure Data”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Atlanta, GA, March, 2007 (invited).
74. Lu, C.* and **Lyles, R.H.** “Assessing Disease and Exposure Associations through Replicated Misclassified Exposure without a Gold Standard”, SRCOS / ASA Summer Research Conference on Statistics, Richmond, VA, June, 2007 (poster presentation).
75. **Lyles, R.H.***, Moore, R., Manatunga, A.K., and Easley, K.A. “Covariate-Adjusted Constrained Bayes Predictions of Random Intercepts and Slopes”, Joint Statistical Meetings of ASA and Biometric Society, Salt Lake City, Utah, August, 2007.
76. Lu, C.* and **Lyles, R.H.** “Misclassification Adjustment in Threshold Models for the Effects of Subject-Specific Exposure Means and Variances”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Arlington, VA, March, 2008.
77. Wannemuehler, K.A.* , **Lyles, R.H.**, Manatunga, A.K., Moore, R.H., Terrell, M.L., and Marcus, M. “Relating a Reproductive Health Outcome to Subject-Specific Features Based on Left- or Interval-censored Longitudinal Exposure Data”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Arlington, VA, March, 2008 (invited).
78. Lu, C.* and **Lyles, R.H.** “Misclassification Adjustment in Threshold Models for the Effects of Subject-Specific Exposure Means and Variances”, Joint Statistical Meetings of ASA and Biometric Society, Denver, Colorado, August, 2008.
79. **Lyles, R.H.*** “Associating Health Outcomes with Latent Subject-Specific Characteristics Based on Left- or Interval-Censored Longitudinal Exposure Data”, Department of Biostatistics Seminar Series, The University of Pittsburgh, November, 2008 (invited).

80. **Lyles, R.H.*** “Associating Health Outcomes with Latent Subject-Specific Characteristics Based on Left- or Interval-Censored Longitudinal Exposure Data”, Division of Biostatistics, Washington University, St. Louis, MO; April, 2009 (invited).
81. Lin, C.Y.*, Waller, L.A., and **Lyles, R.H.** “Evaluation of Medical Diagnostic Systems with Multiple Heterogeneous Biomarkers”, Joint Statistical Meetings of ASA and Biometric Society, Washington, DC, August, 2009.
82. **Lyles, R.H.***, Guo, Y., and Hill, A.N. “A Fresh Look at the Discriminant Function Approach for Estimating Crude or Adjusted Odds Ratios”, Joint Statistical Meetings of ASA and Biometric Society, Washington, DC, August, 2009.
83. **Lyles, R.H.** and Lin, J.* “Sensitivity Analysis for Covariate Misclassification in Logistic Regression via Predictive Value Weights”, Joint Statistical Meetings of ASA and Biometric Society, Washington, DC, August, 2009 (Topic Contributed poster).
84. **Lyles, R.H.*** and Guo, Y. “Simple Adjustments to Reduce Bias and Mean Squared Error Associated with Regression-Based Odds Ratio and Relative Risk Estimators”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, New Orleans, Louisiana, March, 2010.
85. Li, R., Pan, Y., Hertzberg, R., Haber, L.T.*, **Lyles, R.**, Moser, V., Herr, D., Simmons, J.E. “A Novel Approach for Evaluating Carbamate Mixtures for Dose Additivity”, Annual Meeting of the Society of Toxicology, Salt Lake City, Utah, March, 2010 (poster).
86. Tang, L.*, **Lyles, R.H.**, King, C.C., Celentano, D., Lo, Y., Sobel, J. “Regression Analysis for Differentially Misclassified Correlated Binary Outcomes”, Joint Statistical Meetings of ASA and Biometric Society, Vancouver, Canada, August, 2010.
87. Lu, C.*, **Lyles, R.H.**, Lin, H.-M. “Correcting for Misclassification in Testing Differences in Group Means Using Validation Data”, Joint Statistical Meetings of ASA and Biometric Society, Vancouver, Canada, August, 2010.
88. **Lyles, R.H.***, Tang, L., Superak, H.M., King, C.C., Celentano, D., Lo, Y., Sobel, J. “Validation Data-Based Adjustments for Outcome Misclassification in Logistic Regression”, Joint Statistical Meetings of ASA and Biometric Society, Vancouver, Canada, August, 2010.
89. McPherson, M.E., Owusu, B.Y., August, K.J., Qayed, M., **Lyles, R.H.**, Chiang, K.-Y., Khoury, H.J., Ofori-Acquah, S.F., Horan, J. “Platelet Transfusion Requirements are Associated with Endothelial Cell Injury and Angiogenesis During Allogeneic Hematopoietic Stem Cell Transplantation”, 52nd Annual Meeting of the American Society of Hematology, December, 2010.
90. Moore, R.*, **Lyles, R.H.**, Manatunga, A.K., and Easley, K.A. “Estimating Longitudinal HIV RNA Data Subject to a Limit of Detection Using Constrained Bayes Methodology”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Miami, FL, March, 2011.
91. Tang, L.*, **Lyles, R.H.**, King, C.C., Celentano, D., Lo, Y., Sobel, J. “Regression Analysis for Differentially Misclassified Binary Covariates in Longitudinal Studies”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Miami, FL, March, 2011.
92. Lin, J.* and **Lyles, R.H.** “Sensitivity Analysis for Non-ignorable Missing Data in Logistic Regression via Weighting”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Miami, FL, March, 2011.

93. Perkins, N.J.*, Whitcomb, B., **Lyles, R.H.**, Schisterman, E.F. “Analysis of Randomly Pooled Case-Control Data”, 3rd North American Congress of Epidemiology Conference, Montreal, Quebec, Canada, June, 2011 (oral poster presentation).
94. **Lyles, R.H.***, Manatunga, A.K., Mitchell, E. “Analytic and Study Design Considerations When a Continuous Regression Outcome is Assessed in Pooled Samples”, Joint Statistical Meetings of ASA and Biometric Society, Miami Beach, FL, August, 2011.
95. Perkins, N.J.*, Whitcomb, B., **Lyles, R.H.**, Schisterman, E.F. “Flexible Assessment of Skewed Exposure in Case-Control Studies with Case-Specific and Random Pooling”, Joint Statistical Meetings of ASA and Biometric Society, Miami Beach, FL, August, 2011 (oral poster presentation).
96. Lin, J.*, **Lyles, R.H.** “Regression Analysis with Exposure Status Assessed in Large Pools”, Joint Statistical Meetings of ASA and Biometric Society, Miami Beach, FL August, 2011.
97. **Lyles, R.H.*** “Likelihood-Based Methods for Regression Analysis with Binary Exposure Status Assessed by Pooling”, Bio³ Seminar Series, Department of Biostatistics, Bioinformatics, and Biomathematics, Lombardi Comprehensive Cancer Center, Georgetown University, Washington, D.C., October, 2011 (invited).
98. **Lyles, R.H.*** “Approximate and Pseudo-Likelihood Analysis for Logistic Regression Using External Validation Data to Model Log Exposure”, DESPR Seminar Series, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD, December, 2011 (invited).
99. Tang, L.*, **Lyles, R.H.**, Celentano, D., Lo, Y. “Extending Matrix and Inverse Matrix Methods: Another Look at Barron’s Approach”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Washington, DC, April, 2012.
100. Zhang, Z.*, Liu, A., **Lyles, R.H.**, and Mukherjee, B. “Logistic regression analysis of biomarker data subject to pooling and dichotomization”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Washington, DC, April, 2012.
101. Mitchell, E.M.*, **Lyles, R.H.**, Perkins, N.J., and Schisterman, E.F. “Lognormal and Gamma Models to Estimate Means for Skewed Biomarker Data Subject to Assay Pooling”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Washington, DC, April, 2012.
102. Sun, X.*, Peng, L., Manatunga, A., **Lyles, R.H.**, and Marcus, M. “Quantile Regression for Longitudinal Studies with Informatively Missing and Left Censored Measurements”, Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, June, 2012 (poster).
103. Tang, L.*, **Lyles, R.H.**, King, C.C., Celentano, D., Lo, Y, and Sobel, J. “Inferences for Studies in Which Both Exposure and Response Status are Misclassified”, Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, June, 2012 (poster).
104. Mitchell, E.M.*, **Lyles, R.H.**, Perkins, N.J., Danaher, M., and Schisterman, E.F. “Lognormal Models to Estimate Means for Skewed Biomarker Data Subject to Assay Pooling”, Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, June, 2012 (poster).
105. **Lyles, R.H.*** “Approximate and Pseudo-Likelihood Analysis for Logistic Regression Using External Validation Data to Model Log Exposure”, Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, June, 2012 (invited).
106. **Lyles, R.H.*** “Validation Data-Based Adjustments for Outcome Misclassification in Logistic Regression: An

- Illustration”, Division of Reproductive Health (DRH) Seminar Series, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, June, 2012 (invited).
107. Mitchell, E.M.*, **Lyles, R.**, Danaher, M., Perkins, N., and Schisterman, E. “Lognormal and Gamma Regression Models for Skewed Biomarker Data Subject to Assay Pooling”, 24th Annual Conference of the International Society for Environmental Epidemiology (ISEE), Columbia, SC, August, 2012 (invited).
108. **Lyles, R.H.***, Mitchell, E., Guo, Y., Perkins, N., and Schisterman, E. “Adjusting for Processing or Measurement Error in Regression Analyses with Biomarker Exposure Levels Assessed on Pooled Samples”, 24th Annual Conference of the International Society for Environmental Epidemiology (ISEE), Columbia, SC, August, 2012 (invited).
109. Mitchell, E.M.*, **Lyles, R.H.**, Danaher, M., Perkins, N., and Schisterman, E. “Efficient Pooling Methods for Skewed Biomarker Data Subject to Regression Analysis”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Orlando, FL, March 2013.
110. Sun, X.*, Peng, L., Manatunga, A.K., **Lyles, R.H.**, and Marcus, M. “Quantile Regression for Longitudinal Studies with Missing and Left Censored Measurements”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Orlando, FL, March 2013.
111. Mitchell, E.M.*, **Lyles, R.H.**, Danaher, M., Perkins, N., and Schisterman, E. “Efficient Pooling Methods for Skewed Biomarker Data Subject to Regression Analysis”, Joint Statistical Meetings of ASA and Biometric Society, Montreal, Canada, August 2013.
112. Park, J.*, **Lyles, R.H.**, and Bauer-Wu, S. “Mindfulness Meditation Lowers Muscle Sympathetic Nerve Activity and Blood Pressure in Chronic Kidney Disease Patients”, American Society of Nephrology Meeting, Atlanta, GA, November 2013.
113. Mitchell, E.M.*, **Lyles, R.H.**, Danaher, M., Perkins, N., and Schisterman, E. “Comparing Parametric and Semi-parametric Methods for a Skewed, Pooled Outcome”, International Biometric Society Eastern North American Region (ENAR) Spring Meeting, Baltimore, MD, March 2014.
114. **Lyles, R.H.*** “On Efficient Use of Logistic Regression When a Continuous Biomarker is Assayed on Pooled Biospecimens”, Biostatistics and Information Management Office Seminar Series, Centers for Disease Control and Prevention, June, 2014 (invited).
115. Mitchell, E.M., **Lyles, R.H.***, Manatunga, A.K., Danaher, M., Perkins, N., and Schisterman, E. “Regression for Skewed Biomarker Outcomes Subject to Pooling”, Joint Statistical Meetings of ASA and Biometric Society, Boston, MA, August 2014.
116. **Lyles, R.H.***, Mitchell, E.M., Weinberg, C., Umbach, D.M., and Schisterman, E. “On Efficient Use of Logistic Regression When a Continuous Biomarker is Assayed on Pooled Biospecimens”, Joint Statistical Meetings of ASA and Biometric Society, Boston, MA, August 2014.
117. **Lyles, R.H.*** “An Efficient Design Strategy for Logistic Regression Using Outcome- and Covariate-Dependent Pooling of Biospecimens Prior to Assay”, Department of Mathematical Sciences Seminar Series, Clemson University, September, 2014 (invited).
118. **Lyles, R.H.*** “An Efficient Design Strategy for Logistic Regression Using Outcome- and Covariate-Dependent Pooling of Biospecimens Prior to Assay”, 4th Workshop on Biostatistics and Bioinformatics, Georgia State University, May, 2015 (invited).

119. Mitchell, E.M.*, **Lyles, R.H.**, Manatunga, A.K., Danaher, M., Perkins, N., and Schisterman, E. “Regression for Skewed Biomarker Outcomes Subject to Pooling”, SPEED Session, Joint Statistical Meetings of ASA and Biometric Society, Seattle, WA, August 2015.
120. Van Domelen, D.*, **Lyles, R.H.**, Mumford, S.L., Mitchell, E., and Schisterman, E. “A Comparison of Methods to Address Unmeasured Confounding When Internal or External Validation Data Are Available”, Poster Session, Joint Statistical Meetings of ASA and Biometric Society, Seattle, WA, August 2015.
121. **Lyles, R.H.** “Estimating Partial Correlations Between Biomarkers Subject to Detection Limits”, FDA Center for Tobacco Products, Statistics Public Workshop Presentation, Silver Spring, MD, November 2015 ([invited](#)).
122. **Lyles, R.H.***, Van Domelen, D., Mitchell, E., Manatunga, A., and Schisterman, E. “Adjusting for Processing or Measurement Error in Regression Analyses with Biomarker Exposure Levels Assessed on Pooled Samples”, Latent Variables Conference 2016 (LV2016), University of South Carolina, Columbia, SC, October, 2016 ([invited](#)).
123. **Lyles, R.H.*** “Estimating Partial Correlations Between Logged HIV-RNA Measurements Subject to Detection Limits”, Emory Center for AIDS Research (CFAR) Network Meeting, January, 2017 (poster).
124. Van Domelen, D.*, Mitchell, E., Manatunga, A.K., **Lyles, R.H.** and Schisterman, E. “Maximum Likelihood-Based Regression with a Continuous Exposure Variable Assessed in Pools and Subject to Measurement and Processing Errors: A Comparison of Methods”, Joint Statistical Meetings of ASA and Biometric Society, Baltimore, MD, August 2017.
125. **Lyles, R.H.*** “One Fish, Two Fish: Capture-Recapture Considerations from the CHAMPS Analysis Working Group”, Emory Department of Biostatistics and Bioinformatics Seminar Series, September 2017
126. **Lyles, R.H.*** “One Fish, Two Fish: Capture-Recapture Considerations from the CHAMPS Analysis Working Group”, Medical University of South Carolina Department of Public Health Sciences Seminar Series, September 2017 ([invited](#)).
127. **Lyles, R.H.*** “Adjusting for Processing and Measurement Error in Regression with Exposure Levels Assessed on Pooled Biospecimens”, McGill University Department of Epidemiology, Biostatistics and Occupational Health Seminar Series, October 2017 ([invited](#)).
128. **Lyles, R.H.***, Sabben, G., Winskell, K. “A Note on Statistical Power and Sample Size for Cluster-Randomized Studies”, Emory Center for AIDS Research (CFAR) Network Meeting, February, 2018 (poster).
129. Van Domelen, D.*, Mitchell, E.M., Schisterman, E.F., Perkins, N., **Lyles, R.H.** “Logistic Regression with a Right-Skewed Exposure Variable Measured in Pools and Subject to Errors”, Joint Statistical Meetings of ASA Biometric Society, Vancouver, B.C., August 2018.
130. **Lyles, R.H.*** “Estimating Partial Correlations Between Logged HIV-RNA Measurements Subject to Detection Limits”, Joint Statistical Meetings of ASA Biometric Society, Vancouver, B.C., August 2018 ([invited](#)).
131. **Lyles, R.H.*** “Analysis of HIV-RNA Data Subject to Detection Limits”, Adolescent Trials Network (ATN) Analytic Committee Webinar, September 2018 ([invited](#)).
132. Chandra, C.*, Alvarez, A., **Lyles, R.**, Onwubiko, U., Chamberlain, A. “Ecological study of new HIV diagnoses and PrEP utilization among individuals 55 years and older in Southeastern states and DC, 2012-2016”, Conference on Retroviruses and Opportunistic Infections (CROI), Seattle, WA, March 2019.
133. Woolard, S.* , Kidanie, A.W., Mathers, B., Srinivasan, S., Prasad, M., **Lyles, R.H.** “A Low Residue Diet with a

Split Dose Bowel Prep Is Effective in Improving Bowel Prep Adequacy in a Veteran's Affairs Endoscopy Unit", Annual Scientific Meeting of the American-College-of-Gastroenterology (ACG), Philadelphia, PA, October, 2018.

ADDITIONAL INFORMATION

Research Areas of Current or Ongoing Interest

Statistical Methods in Environmental and HIV Epidemiology
Prediction of Random Effects for Repeated Measures and Longitudinal Studies
Measurement Error and Misclassification Models
Missing, Left-Censored, and Zero-Inflated Data Problems
Methods for Analysis of Pooled Laboratory Samples
Multinomial Modeling with Preferential Sampling
Capture-Recapture Methods