

Lloyd Jerome Edwards

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Education

May 1980

BA, Mathematics

Morehouse College
Atlanta, Georgia

December 1982

MA, Mathematical Statistics

University of Maryland
College Park, Maryland

August 1990

Ph.D., Biostatistics

University of North Carolina
Chapel Hill, North Carolina

Experience

October 2019 - Present

Professor - Department of Biostatistics

Secondary Appointment: Investigator, UAB McKnight Brain Institute

**University of Alabama at Birmingham
Birmingham, Alabama**

Conducting statistical research in linear and generalized linear mixed model methodology, longitudinal data analysis, health disparities, cardiovascular disease, neuroscience, and clinical trials design and analysis. Duties include statistical consultation with health-care professionals and analyzing data from health-care related projects. Duties also include teaching, advising students, and participating in both departmental and School of Public Health committees.

August 2017 - October 2019

Professor and Chair - Department of Biostatistics

Secondary Appointment: Investigator, UAB McKnight Brain Institute

**University of Alabama at Birmingham
Birmingham, Alabama**

Conducting statistical research in linear and generalized linear mixed model methodology, longitudinal data analysis, health disparities, cardiovascular disease, neuroscience, and clinical trials design and analysis. Duties included responsibility for management of all personnel, financial, educational, and student matters that are within the purview of the Department of Biostatistics, and serving as the chief representative and spokesperson of the Department in School matters.

June 2000 - July 2017

Associate Professor - Department of Biostatistics

**University of North Carolina - Chapel Hill
Chapel Hill, North Carolina**

Conducting statistical research in continuous outcome longitudinal data analysis methodology, data transformations, health disparities, cardiovascular disease, research in aging, the study of cancer treatments, and the analysis of patient reported outcome (PRO) measures. Duties include statistical consultation with health-care professionals and analyzing data from health-care related projects. Duties also include teaching, advising students, and participating in both departmental and School of Public Health committees.

Experience (cont.)

September 1998 - May 2000

**Associate Professor - Department of Community and Family Medicine / Division of Biometry
Head of Department of Medicine Biostatistics Unit
Duke University Medical Center
Durham, North Carolina**

Conducted statistical research in the design and analysis of clinical trials, continuous longitudinal data analysis methodology, and health services research. Duties included statistical consultation with clinicians and analyzing data from clinical trials and health services studies.

July 1998 - September 1998

**Associate Professor - Department of Biostatistics
University of North Carolina - Chapel Hill
Chapel Hill, North Carolina**

July 1991 - July 1998

**Assistant Professor - Department of Biostatistics
University of North Carolina - Chapel Hill
Chapel Hill, North Carolina**

Conducted statistical research in measurement error models, data transformations, and continuous longitudinal data analysis methodology. Duties included statistical consultation with health-care professionals and analyzing data from health-care related projects. Duties also included teaching, advising students, and participating in both departmental and School of Public Health committees.

September 1990 - June 1991

**Visiting Assistant Professor - Department of Biostatistics
University of North Carolina - Chapel Hill
Chapel Hill, North Carolina**

Conducted statistical research in measurement error models, data transformations, and continuous longitudinal data analysis methodology. Duties also included statistical consultation with health-care professionals and analyzing data from health-care related projects.

Organizations/Honors

Senior Scientist, UAB Alzheimer's Disease Center (May 2019 - present)
Member, Internal Advisory Committee, UAB Comprehensive Neuroscience Center (May 2019 - present)
Member, Internal Advisory Board, UAB Center for Women's Reproductive Health (May 2019 - present)
Member, UNC IRB Scientific Review Committee (August 2012 - May 2017)
Member of Clinical Research Committee of the Cystic Fibrosis Foundation (Oct 2011 - June 2017)
Delta Omega Faculty Award (2010)
ENAR Representative, Joint Statistical Meetings 2009 Program Committee (2008-2009)
Member, ENAR Regional Advisory Board (2007-2008)
Fellow of the UNC Cecil G. Sheps Center for Health Services Research (2006-present)
Statistical Support Unit Lead and Senior Research Scientist, UNC Institute on Aging (2006-2014)
Mentor, Carolina Program in Healthcare and Aging Research, UNC Institute on Aging (2006-2014)
Member, NIH Clinical and Integrative Cardiovascular Science (CICS) study section (2006-2011)
American Statistical Association (ASA, 1987-present)
Member of Clinical Research Review Committee of the Cystic Fibrosis Foundation (Sept 1994-2002)
Member of SAMSI Local Development Committee (Sept. 2003-2006)
Phi Beta Kappa (1980)

Publications - Peer Reviewed

1. Kwessi, E, **Edwards, LJ** (2021). **Analysis of EEG data using complex geometric structurization.** *In Press, Neural Computation.*
2. Kwessi, E, **Edwards, LJ** (2021). **A Nearly Exact Discretization Scheme for the FitzHugh-Nagumo Model.** *In Press, Differential Equations and Dynamical Systems.*
3. Bundy, J.D., Jaeger, B.C., Huffman, M.D., Knox, S.S., Thomas, S.J., Shimbo, D., Booth, J.N., Lewis, C.E., **Edwards, L.J.**, Schwartz, J.E., Muntner, P. (2020). **Twenty-Five-Year Changes in Office and Ambulatory Blood Pressure: Results from the Coronary Artery Risk Development in Young Adults (CARDIA) Study.** *In Press, American J of Hypertension.*
4. Weiss, BD, Wolters, PL, Plotkin, SR, Widemann, BC, Tonsgard, JH, Blakeley, J, Allen, JC, Schorry, E, Korf, B, Robinson, NJ, Goldman, S, Vinks, AA, Emoto, C, Fukada, T, Thomas Robinson, C, Cutter, G, **Edwards, L**, Dombi, E, Ratner, N, Packer, R, Fisher, MJ (2020). **NF106: A Neurofibromatosis Clinical Trials Consortium Phase 2 Trial of the MEK Inhibitor Mirdametinib (PD-0325901) in Adolescents and Adults with NF1-Related Plexiform Neurofibromas.** *In Press, Journal of Clinical Oncology.*
5. Hogan, MJ, Stephens, K, Smith, E, Jalazo, ER, Hendriksz, CJ, **Edwards, LJ**, Bjoraker, KJ (2020). **Toileting Abilities Survey as a surrogate outcome measure for cognitive function: Findings from neuronopathic mucopolysaccharidosis II patients treated with idursulfase and intrathecal idursulfase.** *Molecular Genetics and Metabolism Reports* 2020 Oct 21;25:100669. doi: 10.1016/j.ymgmr.2020.100669. PMID: 33101985; PMCID: PMC7578548..
6. Peabody Lever, JE, Mutyam, V, Hathorne, HY, Peng, N, Sharma, J, **Edwards, LJ**, Rowe, SM (2020). **Ataluren/Ivacaftor Combination Therapy: Two N-of-1 Trials in CF Patients with Nonsense Mutations.** *Pediatric Pulmonology*, 55(7):1838-1842.
7. Galloway, SN, Frierson, HT, **Edwards, LJ** (2020). **Researcher Identity Formation Among Black Undergraduate Participants in a Summer Research Training Program.** *In press, The Journal of Negro Education.*
8. Kwessi, E, **Edwards, LJ** (2020). **Artificial neural networks with a signed-rank objective function and applications.** *Communication in Statistics - Simulation and Computation*, 1-26.
9. Jaeger, BC, Booth, JN, Butler, M, **Edwards, LJ**, Lewis, CE, Lloyd-Jones, DM, Sakhuja, S, Schwartz, JE, Shikany, JM, Shimbo, D, Yano, Y, Muntner, P (2020). **Development of Predictive Equations for Nocturnal Hypertension and Non-dipping Systolic Blood Pressure.** *Journal of the American Heart Association*, 9(2):e013696.
10. Lin, V., Kaza, N., Birket, S., Kim, H., **Edwards, L.**, LaFontaine, J., Liu, L., Mazur, M., Byzek, S., Hanes, J., Tearney, G., Raju, S.V., Rowe, S. (2019). **Excess mucus viscosity and airway dehydration impact COPD airway clearance.** *European Respiratory Journal*, 55(1): 1900419; DOI: 10.1183/13993003.00419-2019.
11. Jaeger, B.C., **Edwards, L.J.**, Gurka, M.J. (2019). **An R^2 statistic for covariance model selection in the linear mixed model.** *Journal of Applied Statistics*, 46(1):164-184.
12. Siddiqui, M., Judd, E.K., Jaeger, B.C., Bhatt, H., Dudenbostel, T., Zhang, B., **Edwards, L.J.**, Oparil, S., Calhoun, D.A. (2019). **Out-of-clinic sympathetic activity is increased in patients with masked uncontrolled hypertension.** *Hypertension*, 73:132–141.
13. Beamon, C.J., Stuebe, A.M., **Edwards, L.J.**, Mayer, D.C., Strauss, R.A. (2019). **Is the type of neuraxial anesthesia associated with adverse neonatal outcomes among patients with preeclampsia.** *J Neonatal-Perinatal Med*, 13(3): 331-337.

Publications - Peer Reviewed (cont.)

14. Smith, A., Jaeger, B.V., Pinheiro, L.C., **Edwards, L.J.**, Tan, H-T, Nielsen, M., Reeve, B.B. (2018). **Impact of bladder cancer on health-related quality of life.** *British Journal of Urology International*, 121(4): 549-557.
15. Reeve, B.B., **Edwards, L.J.**, Jaeger, B.C., Hinds, P.S., Dampier, C., Gipson, D.S., Selewski, D.T., Troost, J.P., Thissen, D., Barry, V., Gross, H.E., DeWalt, D.A. (2017). **Assessing responsiveness over time of the PROMIS[®] Pediatric symptom and function measures in cancer, nephrotic syndrome, and sickle cell disease.** *Quality of Life Research*, 27(1): 249-257.
16. Smith, C.L., **Edwards L.J.** (2017). **A Test of Separate Hypotheses for Comparing Linear Mixed Models with Nonnested Fixed Effects.** *Communications in Statistics – Theory and Methods*, 48(11): 5487-5500.
17. Beamer, S., Ferns, S., Edwards, L., Guntherd, G., Nelson, J. (2017). **Early extubation in pediatric heart surgery across a spectrum of case complexity: Impact on hospital length of stay and chest tube days.** *Progress in Pediatric Cardiology*, 45: 63-68.
18. Virkud, Y.V., Burks, A.W., Steele, P.H., **Edwards, L.**, Berglund, J.P., Jones, S.M., Scurlock, A., Perry, T.T., Pesek, R., Vickery, B.P. (2017). **Novel baseline predictors of allergic side effects during peanut oral immunotherapy.** *Journal of Allergy and Clinical Immunology*, 139(3): 882–888.e5.
19. Jaeger, B.C., **Edwards, L.J.**, Das, K., Sen, P.K. (2017). **An R² statistic for fixed effects in the generalized linear mixed model.** *Journal of Applied Statistics*, 44(6): 1086-1105.
20. Qin B., Viera A.J., Muntner P., Plassman B.L., **Edwards L.J.**, Adair L.S., Popkin B.M., and Mendez M.A. (2016). **Visit-to-visit variability in blood pressure is related to late-life cognitive decline.** *Hypertension*, 68(1):106-13.
21. Dampier, C., Jaeger, B., Gross, H.E., Barry, V., **Edwards, L.**, Lui, Y., Dewalt, D.A., Reeve, B.B. (2016). **Responsiveness of PROMIS[®] Pediatric Measures to Hospitalizations for Sickle Pain and Subsequent Recovery.** *Pediatric Blood & Cancer*, 63(6): 1038-1045.
22. Pinheiro, L.C., Callahan, L.F., Cleveland, R.J., **Edwards, L.J.**, Reeve, B.B. (2016). **The performance and association between patient-reported and performance-based measures of physical functioning in research on individuals with arthritis.** *Journal of Rheumatology*, 43(1): 131-137.
23. Hermiz, S.J., Rao, T., **Edwards, L.J.**, Fanning, A., Meyers, M.O., Hultman, C.S., Roughton, M.C. (2016). **Plastic Surgery In-training exam scores correlate with US Medical Licensing Exam Step 1 and 2 scores.** *Plast Reconstr Sur Glob Open*, 4(10): e1101.
24. Cagle, J.G., LaMantia, M.A., Williams, S.W., Pek, J., **Edwards, L.J.** (2016). **Predictors of Preference for Hospice Care among Diverse Older Adults.** *American Journal of Hospice and Palliative Medicine*, 33(6):574-84.
25. Qin, B., Adair, L.S., Plassman, B.L., Batis, C., **Edwards, L.J.**, Popkin, B.M., Mendez, M.A. (2015). **Dietary patterns and cognitive decline among Chinese older adults.** *Epidemiology*, 26(5):758-68.
26. Phillips, M.R., Khoury, A.L., Stephenson, B.J.K., **Edwards, L.J.**, Charles, A.G., McLean, S.E. (2015). **Outcomes of pediatric patients with abdominal sepsis requiring surgery and extracorporeal membrane oxygenation using the Extracorporeal Life Support Organization database.** *The American Surgeon*, 81(3):245-51.
27. Cykert, S., Walker, P., **Edwards, L.**, McGuire, F., Dilworth-Anderson, P. (2015). **Weighing Projections of Physical Decline in Lung Cancer Surgery Decisions.** *American Journal of Medical Sciences*, 349(1):61-66.

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28. Qin, B., Plassman, B.L., **Edwards, L.J.**, Popkin, B.M., Adair, L.S., Mendez, M.A. (2014). **Fish intake and cognitive decline in Chinese older adults: the China Health and Nutrition Survey (CHNS).** *Journal of Nutrition*, 144(10):1579-85.
29. Weiss, J., Stephenson, B., **Edwards, L.**, Rigney, M., Copeland, A. (2014). **Public attitudes about lung cancer: stigma, support, and predictors of support.** *Journal of Multidisciplinary Healthcare*, 7:293-300.
30. Simpson, S.L., **Edwards, L.J.**, Styner, M.A., Muller, K.E. (2014). **Separability tests for high-dimensional, low sample size multivariate repeated measures data.** *Journal of Applied Statistics*, 41(11):2450-2461.
31. **Edwards, L.J.**, Simpson, S.L. (2014). **An Analysis of 24-Hour Ambulatory Blood Pressure Monitoring Data using Orthonormal Polynomials in the Linear Mixed Model.** *Blood Pressure Monitoring*, 19(3): 153-163.
32. Simpson, S.L., **Edwards, L.J.**, Styner, M.A., Muller, K.E. (2014). **Kronecker product linear exponent AR(1) correlation structures for multivariate repeated measures.** *PLOS One*, 2014 Feb 21;9(2):e88864. doi: 10.1371/journal.pone.0088864. Accessed 25FEB2014.
33. Jennette, C., Brewer, C.A., **Edwards, L.J.**, Mishel, M., Gil, K. (2014). **An Intervention to Decrease Stigma in Young Adults with Sickle Cell Disease.** *Western Journal of Nursing Research*, 36(5):599-619.
34. Simpson, S.L., **Edwards, L.J.** (2013). **A circular LEAR correlation structure for cyclical longitudinal data.** *Statistical Methods in Medical Research*, 22(3): 296-306.
35. Smith, S.K., Mayer, D.K., Zimmerman, S., Williams, C.S., Benecha, H., Ganz, P.A., **Edwards, L.J.**, Abernethy, A.P. (2013). **Quality of life among long-term non-Hodgkin's lymphoma survivors: A follow-up study.** *Journal of Clinical Oncology*, 31(2): 272-279.
36. Mingo, C.A., Mellvane, J.M., Jefferson, M.J., **Edwards, L.J.**, Haley, W.E. (2013). **Preferences for Arthritis Interventions.** *Arthritis Care & Research*, 65(2): 203-211.
37. Dalton, A.F., Bunton, A.F., Cykert, S., Corbie-Smith, G., Dilworth-Anderson, P., McGuire, F.R., Monroe, M.H., Walker, P., **Edwards, L.J.** (2014). **Patient Characteristics Associated with Favorable Perceptions of Patient-Provider Communication in Early Stage Lung Cancer Treatment.** *Journal of Health Communication*, 19(5):532-44.
38. Veeramachaneni, N.K., Feins, R.H., Stephenson, B.J.K., **Edwards, L.J.**, Fernandez, F.G. (2012). **Management of Stage IIIA Non-Small Cell Lung Cancer by Thoracic Surgeons in North America.** *Annals of Thoracic Surgery*, 94(3): 922-928.
39. Gurka, M.J., Kelley, G.A., **Edwards, L.J.** (2012). **Fixed and Random Effects Models.** *Wiley Interdisciplinary Reviews (WIREs) Computational Statistics*, 4(2):181-190.
40. Adgent, M., Daniels, J., Rogan, W., Adair, L., **Edwards, L.**, Westreich, D., Maisonet, M., Marcus, M. (2012). **Early Life Soy Exposure and Age at Menarche.** *Paediatric and Perinatal Epidemiology*, 26(2): 163-175.
41. Smith, S.K., Zimmerman, S., Williams, C.S., Benecha, H., Abernethy, A.P., Mayer, D.K., **Edwards, L.J.**, Ganz, P.A. (2011). **Post-traumatic Stress Symptoms in Long-term Non-Hodgkin Lymphoma Survivors: Does Time Heal?** *Journal of Clinical Oncology*, 29(34):4526-33.
42. Adgent, M., Daniels, J., **Edwards, L.** Siega-Riz, A.M., Rogan, W. (2011). **Early Life Soy Exposure and Gender-Role Play Behavior in Children.** *Environmental Health Perspectives*, 119:1811-1816.
43. Gurka, M.J., **Edwards, L.J.**, Muller, K.E., (2011). **Avoiding Bias in Mixed Model Inference for Fixed Effects.** *Statistics in Medicine*, 30(22):2696-707.

Publications - Peer Reviewed (cont.)

44. Freburger, J.K., Holmes, G.M., Ku, L.J., Cutchin, M., Heatwole-Shank, K., **Edwards, L.J.** (2011). **Disparities in Post-Acute Rehabilitation Care for Stroke: An Analysis of the State Inpatient Databases.** *Archives of Physical Medicine and Rehabilitation*, 92(8): 1220-1229.
45. Freburger, J.K., Holmes, G.M., Ku, L.J., Cutchin, M., Heatwole-Shank, K., **Edwards, L.J.** (2011). **Disparities in Post-Acute Rehabilitation Care for Joint Replacement.** *Arthritis Care and Research*, 63(7): 1020-1030.
46. Gurka, M.J., **Edwards, L.J.** (2011). **Estimating Variance Components and Random Effects Using the Box-Cox Transformation in the Linear Mixed Model.** *Communications in Statistics - Theory and Methods*, 40:515-531.
47. Cykert, S, Dilworth-Anderson, P, Monroe, MH, Walker, P, McGuire, FR, Corbie-Smith, G, **Edwards, LJ**, Buntun, AJ (2010). **Factors Associated With Decisions to Undergo Surgery Among Newly Diagnosed Patients With Early Stage Lung Cancer.** *Journal of the American Medical Association*, 303(23): 2368-2376.
48. Gregory, P., **Edwards, L.J.**, Faurot, K., Williams, S., Felix, A. (2010). **Patient Preferences for Stroke Rehabilitation.** *Topics in Stroke Rehabilitation*, 17(5):394-400.
49. Simpson, S.L., **Edwards, L.J.**, Muller, K.E., Sen, P.K., Styner, M.A. (2010). **A Linear Exponent AR(1) Family of Correlation Structures .** *Statistics in Medicine*, 29(17): 1825-1838.
50. González-Pérez, V., Reiner, D.J., Alan, J.K., Mitchell, C., **Edwards, L.J.**, Khazak, V., Der, C.J., Cox, A.D. (2010). **Genetic and functional characterization of putative Ras/Raf interaction inhibitors in C. elegans and mammalian cells.** *Journal of Molecular Signaling*, 5:2.
51. Cheng, J., **Edwards, L.J.**, Maldonado-Molina, M.M., Komro, K.A., Muller, K. (2010). **Real Longitudinal Data Analysis for Real People: Building a Good Enough Mixed Model.** *Statistics in Medicine*, 29:504-520.
52. Wright, T.M., Brannon, A.R., Gordan, J.D., Mikels, A.J., Mitchell, C., Chen, S., Espinosa, I., van de Rijn, M., Pruthi, R., Wallen, E., **Edwards, L.**, Nusse, R., Rathmell, W.K. (2009). **Ror2, a developmentally regulated kinase, promotes invasive growth potential in renal cell carcinoma.** *Oncogene* 28:2513-2523.
53. **Edwards, L.J.**, Muller, K.E., Wolfinger, R.D., Qaqish, B.F., Schabenberger, O. (2008). **An R² Statistic for Fixed Effects in the Linear Mixed Model.** *Statistics in Medicine*, 27(29):6137-57.
54. Kelly, C.M., **Edwards, L.J.** (2008). **Nursing Home Quality: The Effect of Administrator Licensing Criteria on Regulatory Outcomes.** *Hallym International Journal of Aging*, 10(1):1-21.
55. Kelly, C.M., Liebig, P.S., **Edwards, L.J.** (2008). **Nursing Home Deficiencies: An Exploratory Study of Interstate Variations in Regulatory Activity.** *Journal of Aging & Social Policy*, 20(4):398-413.
56. Orelien, J.G., **Edwards, L.J.** (2008). **Fixed effect variable selection in linear mixed models using R² statistics.** *Computational Statistics and Data Analysis*, 52:1896-1907.
57. Fisher, M., Sloane, P., **Edwards, L.**, Gamble, G. (2007). **Continuity of care and hypertension control in a university-based practice.** *Ethnicity and Disease*, 17(4):693-698.
58. Muller, K.E., **Edwards, L.J.**, Simpson, S.L., Taylor, D.J. (2007). **Statistical tests with accurate size and power for balanced linear mixed models.** *Statistics in Medicine*, 26(19):3639-60.
59. Gurka, M.J., **Edwards, L.J.**, French, L.N. (2007). **Testing Transformations for the Linear Mixed Model.** *Computational Statistics and Data Analysis*, 51:4297-4307.

Publications - Peer Reviewed (cont.)

60. Gurka, M.J., **Edwards, L.J.**, Muller, K.E., Kupper, L.L. (2006). **Extending the Box-Cox Transformation to the Linear Mixed Model.** *Journal of the Royal Statistical Society, Series A*, 169(2):273-288.
61. Howard, D.L., Bunch, C.D., Mundia, W., Konrad, T.R., **Edwards, L.J.**, Amamoo, M.A., Jallah, Y. (2006). **Comparing United States vs. International Medical School Graduate Physicians Who Serve African American and White Elderly.** *Health Services Research*, 41(6):2155-81.
62. **Edwards, L.J.**, Stewart, P.J., MacDougall, J.E., Helms, R.W. (2006). **A Method for Fitting Regression Splines with Varying Polynomial Order in the Linear Mixed Model.** *Stat Med.*, 25(3):513-27.
63. Konrad, T.R., Howard, D.L., **Edwards, L.J.**, Ivanova, A., Carey, T.S. (2005). **Physician-patient racial concordance, continuity, and patterns of care for hypertension.** *Am J Public Health*, 95(12):2186-90.
64. Sempowski, G.D., Hicks, C.B., Eron, J.J., Bartlett, J.A., Hale, L.P., Ferrari, G., **Edwards, L.J.**, Fiscus, S., Haynes, B.F. (2005). **Naïve T Cells Are Maintained in the Periphery During The First Three Months of Acute HIV-1 Infection: Implications for Analysis of Thymus Function.** *J Clin Immunol.*, 25(5):462-72.
65. Holditch-Davis, D., Belyea, M. **Edwards, L.J.** (2005). **Prediction of 3-Year Developmental Outcomes from Sleep Development over the Preterm Period.** *Infant Behavior and Development*, 28:118-131.
66. Graham, K.A., Perkins, D.O., **Edwards, L.J.**, Barrier, R.C., Lieberman, J.A., Harp, J.B. (2005). **Effect Of Olanzapine On Body Composition And Energy Expenditure In First Episode Psychotic Adults.** *American Journal of Psychiatry*, 162(1):118-23.
67. Uckun-Kitapci, A., Tezic, T., Firat, S., Sipahi, T., Barrier, R., **Edwards, L.J.**, Calikoglu, A.S. (2004). **Obesity and Type 2 Diabetes Mellitus: A Population-based Study of Adolescents.** *J Pediatr Endocrinol Metab.*, 17(12):1633-40.
68. Zhu, X., Song, J., Mar, M.H., **Edwards, L.J.**, Zeisel, S.H. (2003). **Phosphatidylethanolamine-N-methyltransferase (PEMT) knockout mice have hepatic steatosis and abnormal hepatic choline metabolite concentrations despite ingesting a recommended dietary intake of choline.** *Biochemical Journal*, 370(3):987-93.
69. Olivier, K.N., Weber, D. J., Wallace, R.J., Faiz, A.R., Lee, J.H., Zhang, Y., Brown-Elliot, B.A., Handler, A., Wilson, R.W., Schechter, M.S., **Edwards, L.J.**, Chakraborti, S., Knowles, M.R. (2003). **Nontuberculous Mycobacteria: I. Multicenter prevalence study in cystic fibrosis.** *American Journal of Respiratory and Critical Care Medicine*, 167(6):828-34.
70. Szczech, L.A., **Edwards, L.J.**, Sanders, L.L., van der Horst, C., Bartlett, J.A., Heald, A.E., Svetkey, L.P. (2002). **Protease inhibitors are associated with a slowed progression of HIV-related renal diseases.** *Clin Nephrol*, 57(5):336-41.
71. Wellons, M.F., Sanders, L., **Edwards, L.J.**, Bartlett, J.A., Heald, A.E., Schmader, K.E. (2002). **HIV Infection: Treatment Outcomes in Older and Younger Adults.** *J Am Geriatr Soc.*, 50(4):603-607.
72. Yen, C.L., Mar, M.H., Craciunescu, C.N., **Edwards, L.J.**, Zeisel, S.H. (2002). **Deficiency in Methionine, Tryptophan, Isoleucine, or Choline in Cultured Cells.** *J Nutr.*, 132(7):1840-1847.
73. Edelman, D., **Edwards L.J.**, Olsen, M.K., Dudley, T.K., Harris, A.C., Blackwell, D.K., Oddone, E.Z. (2002). **Screening for diabetes in an outpatient clinic population.** *J Gen Intern Med*, 17(1):23-8.
74. Oliver, M.J., **Edwards, L.J.**, Treleaven, D.J., Lambert, K., Margetts, P.J. (2002). **Randomized study of temporary hemodialysis catheters.** *Int J Artif Organs*, 25(1):40-44.
75. Torti, F.M., Adams, K.M., **Edwards, L.J.**, Lindell, K.C., Zeisel, S.H. (2001). **Survey of Nutrition Education in U.S. Medical Schools -- An Instruction Based Analysis.** *Medical Education Online, Volume 6*, www.med-ed-online.org/res00023.htm.

Publications - Peer Reviewed (cont.)

76. Palmer, S.M., Baz, M.A., Sanders, L.L., Miralles, A.P., Lawrence, C.M., Rea, J.B., Zander, D.S., **Edwards, L.J.**, Staples, E.D., Tapson, V.F., Davis, R.D. (2001). **Results of a randomized, prospective, multicenter trial of mycophenolate mofetil versus azathioprine in the prevention of acute lung allograft rejection.** *Transplantation*, 71(12):1772-1776.
77. **Edwards, L.J.**, Stewart, P.W., Muller, K.E., Helms, R.W. (2001). **Linear Equality Constraints in the General Linear Mixed Model.** *Biometrics*, 57:1185-1190.
78. Muir A.J., **Edwards L.J.**, Sanders L.L., Bollinger R.R., Koruda M.J., Bachwich D.R., Provenzale D. (2001). **A prospective evaluation of health-related quality of life after ileal pouch anal anastomosis for ulcerative colitis.** *American Journal of Gastroenterology*, 96(5):1480-1485.
79. Owen, S.A., Sanders, L.L., Edwards, L.J., Seigler, H.F., Tyler, D.S., Grichnik, J.M. (2001). **Identification of higher risk thin melanomas should be based on Breslow depth not Clark level IV.** *Cancer*, 91(5):983-991.
80. Wellons, M.F., Ottinger, J.S., Weinhold, K.J., Gryszowka, V., Sanders, L.L., **Edwards, L.J.**, Gooding, M.E., Thomasch, J.R., Bartlett, J. (2001). **Immunologic Profile of Human Immunodeficiency Virus-Infected Patients during Viral Remission and Relapse on Antiretroviral Therapy.** *Journal of Infectious Diseases*, 183(10):1522-1525.
81. Sempowski, G.D., Thomasch, J.R., Gooding, M.E., Hale, L.P., **Edwards, L.J.**, Ciafaloni, E., Sanders, D.B., Massey, J.M., Douek, D.C., Koup, R.A., Haynes, B.F. (2001). **Effect of Thymectomy on Human Peripheral Blood T Cell Pools in Myasthenia Gravis.** *Journal of Immunology*, 166(4):2808-2817.
82. Goldstein, L.B., Jones, M.J., Matchar, D.B., **Edwards, L.J.**, Hoff, J., Chilukuri, V., Armstrong, S.B., Horner, R.D. (2001). **Improving the Reliability of Stroke Subgroup Classification Using the Trial of ORG 10172 in Acute Stroke Treatment (TOAST) Criteria • Editorial Comment : Classifying the Mechanisms of Ischemic Stroke.** *Stroke*, 32:1091-1097.
83. Oliver M.J., **Edwards L.J.**, Churchill D.N. (2001). **Impact of sodium and ultrafiltration profiling on hemodialysis-related symptoms.** *J Am Soc Nephrol*, 12(1):151-156.
84. Bosworth, H.B., Horner, R.D., **Edwards, L.J.**, Matchar, D.B. (2000). **Depression and other determinants of values placed on current health state by stroke patients: Evidence from the VA Acute Stroke (VAsT) Study.** *Stroke*, 31:2603-2609.
85. **Edwards, L.J.** (2000). **Modern Statistical Techniques for the Analysis of Longitudinal Data in Biomedical Research.** *Pediatric Pulmonology*, 30(4):330-344.
86. Palmer, S.M., Alexander, B.D., Sanders, L.L., **Edwards, L.J.**, Reller, L.B., Davis, D., Tapson, V.F. (2000). **Significance of Blood Stream Infections after Lung Transplantation: Analysis in 176 Consecutive Patients.** *Transplantation*, 69(11):2360-2366.
87. Jones, M.R., Horner, R.D., **Edwards, L.J.**, Hoff, J., Armstrong, B., Smith-Hammond, C.A., Matchar, D.B., Oddone, E.Z. (2000). **Racial Variation in Initial Stroke Severity.** *Stroke*, 31:563-567.
88. Rostedt, A.; Sanders, L.L., **Edwards, L.J.**, Massey, J.M., Sanders, D.B., Stålberg, E.V. (2000). **Predictive Value of Single-Fiber Electromyography in the Extensor Digitorum Communis Muscle of Patients with Ocular Myasthenia Gravis: A Retrospective Study.** *Journal of Clinical Neuromuscular Disease*, 2(1):6-9.
89. Sanders, D.B., Massey, J.M., Sanders, L.L., **Edwards, L.J.** (2000). **A Randomized Trial of 3,4-Diaminopyridine in Lambert-Eaton Myasthenic Syndrome.** *Neurology*, 54:603-607.
90. Armstrong, T.D., Crum, L.D., Rieger, R.H., Bennett, T.A., **Edwards, L.J.** (1999). **Attitudes of African-Americans Toward Participation in Medical Research.** *Journal of Applied Social Psychology*, 29(3):552-574.

Publications - Peer Reviewed (cont.)

91. Holditch-Davis, D., **Edwards, L.J.** (1998). **Temporal Organization of Sleep-Wake States in Preterm Infants.** *Developmental Psychobiology*, 33:257-269.
92. Paeratakul, S., Popkin, B.M., Kohlmeir, L., Hertz-Piccioto, I., Guo, X. **Edwards, L.J.** (1998). **Measurement Error in Dietary Data: Implications for the Epidemiologic Study of Diet-Body Weight Relationship.** *European Journal of Clinical Nutrition*, 52(10):722-727.
93. Holditch-Davis, D., **Edwards, L.J.**, Helms, R.W. (1998). **Modeling Development of Sleep-Wake Behaviors I. Using the Mixed General Linear Model.** *Physiology and Behavior*, 63(3):311-318.
94. Holditch-Davis, D., **Edwards, L.J.** (1998). **Modeling Development of Sleep-Wake Behaviors: II. Results of 2 Cohorts of Preterms.** *Physiology and Behavior*, 63(3):319-328.
95. Corey, M., **Edwards, L.J.**, Levison, H., Knowles, M. (1997). **Longitudinal Analysis of Pulmonary Function Decline in Patients with Cystic Fibrosis.** *Journal of Pediatrics*, 131(6):809-814.
96. Noone, P.G., Regnis, J.A., Liu, X., Brouwer, K.L., Robinson, M., **Edwards, L.**, Knowles, M.R. (1997). **Airway deposition and clearance, and systemic pharmacokinetics of amiloride following aerosolization with an ultrasonic nebulizer to normal airways.** *Chest*, 112, 1283-1290.
97. Bennett, T., **Edwards, L.J.**, Crum, L., Browne, D. (1997). **Addressing the Need for Minority Health Research: A Project at the University of North Carolina at Chapel Hill.** *Carolina Health Services and Policy Review*, 4, 243-253.
98. Olivier, K.N., Bennett, W.D., Hohneker, K.W., Zeman, K.L., **Edwards, L.J.**, Boucher, R.C., Knowles, M.R.. (1996). **Acute Safety and Effects on Mucociliary Clearance of Aerosolized Uridine 5'-Triphosphate \pm Amiloride in Normal Adults.** *American Journal of Respiratory and Critical Care Medicine*, 154(1):217-223.
99. Flume, P.A., Eldridge, F.L., **Edwards, L.J.**, Mattison, L.E. (1996). **Relief of the "Air Hunger" of Breathholding: A Role for Pulmonary Stretch Receptors.** *Respiration Physiology*, 103:221-232.
100. Knowles, M.R., Hohneker, K.W., Zhou, Z., Olsen, J.C., Noah, T.L., Hu, P-C., Leigh, M.W., Engelhardt, J.F., **Edwards, L.J.**, Jones, K.R., Grossman, M., Wilson, J.M., Johnson, L.G., Boucher, R.C. (1995). **A Controlled Study of Adenoviral-Vector-Mediated Gene Transfer in the Nasal Epithelium of Patients with Cystic Fibrosis.** *New England Journal of Medicine*, 333(13):823-31.
101. Flume, P.A., Eldridge, F.L., **Edwards, L.J.**, Houser, L.M. (1995). **Relief of Distress of Breathholding: Separate Effects of Expiration and Inspiration, 1995.** *Respiration Physiology*, 101:41-46.
102. **Edwards, L.J.** (1995). **Effect of Measurement Error in Testing Separate Linear Models.** *J. Statistical Computation and Simulation*, 52, 205-216.
103. Blackmore, C.A., Savitz, D.A., **Edwards, L.J.**, Harlow, S., Bowes, W.A. (1995). **Racial Differences in the Patterns of Preterm Delivery in Central North Carolina.** *Paediatric and Perinatal Epidemiology*, 9, 281-295.
104. **Edwards, L.J.**, Hamilton, S.A. (1995). **Errors-in-Variables and the Box-Cox Transformation.** *Computational Statistics and Data Analysis*, 20, 131-140.
105. **Edwards, L.J.**, Sen, P.K. (1994). **Approximating Fisher's Information for the Functional Measurement Error Model.** *Journal of Applied Statistics*, 21 (4), 205-219.
106. **Edwards, L.J.** (1994). **An Alternative Approach to Estimation in the Functional Measurement Error Model.** *Communication In Statistics: Theory and Methods*, 23 (6), 1651-1664,.

Publications - Peer Reviewed (cont.)

107. Holditch-Davis, D., **Edwards, L.J.**, Wigger, M.C. (1994). **Pathologic Apnea and Brief Respiratory Pauses in Preterm Infants: Relation to Sleep State.** *Nursing Research*, **43**(5), 293:300.
108. Flume, P.A., Eldridge, F.L., **Edwards, L.J.**, Houser, L.M. (1994). **The Fowler Breathholding Study Revisited: Continuous Rating of Respiratory Sensation.** *Respiration Physiology*, **95**, 53-66.
109. Holditch-Davis, D., Black, B.P., Harris, B.G., Sandelowski, M., **Edwards, L.J.** (1994). **Beyond Couvade: Pregnancy Symptoms in Couples with a History of Infertility.** *Health Care for Women International*, **15**:537-548.
110. Kilby, J.M., Gilligan, P.H., Yankaskas, J.R., Highsmith, W.E., **Edwards, L.J.**, Knowles, M.R. (1992). **Nontuberculosis Mycobacteria in Adult Patients with Cystic Fibrosis.** *Chest*, **102**:70-75.
111. Knowles, M.R., Church, N.L., Waltner, W.E., Yankaskas, J.R., Gilligan, P., King, M., **Edwards, L.J.**, Helms, R.W., Boucher, R.C. (1991). **Aerosolized Amiloride as Treatment of Cystic Fibrosis Lung Disease: A Pilot Study.** *Advances in Experimental Medicine and Biology*, **290**:119-28; discussion 129-32.
112. Knowles, M.R., Church, N.L., Waltner, W.E., Yankaskas, J.R., Gilligan, P., King, M., **Edwards, L.J.**, Helms, R.W., Boucher, R.C. (1990). **Aerosolized Amiloride for the Treatment of Lung Disease in Cystic Fibrosis - Reply.** *New England J Med*, **323**(14): 997-998.
113. Knowles, M.R., Church, N.L., Waltner, W.E., Yankaskas, J.R., Gilligan, P., King, M., **Edwards, L.J.**, Helms, R.W., Boucher, R.C. (1990). **A Pilot Study of Aerosolized Amiloride for the Treatment of Lung Disease in Cystic Fibrosis.** *New England J Med*, **322**:1189-94.

Non Peer Reviewed Publications

1. Book Chapter: Gurka, M.J. and **Edwards, L.J.** (2008). **Mixed Models.** Handbook of Statistics, Volume 27: Epidemiology and Medical Statistics, Pages 253-280.
2. Book Chapter: **Edwards, L.J.** (2000). **Bridging the Biostatistics-Epidemiology Gap.** Handbook of Statistics, Volume 18: Bioenvironmental and Public Health Statistics, Pages 1029-1057.
3. **Edwards, L.J.**, Legault, C. (2000) **Mixed Model Analysis with Covariate Error.**
4. **Edwards, L.J.** (1996). **Analysis of Longitudinal Data: Issues in the Design of Controlled Clinical Trials in Cystic Fibrosis Research.**
5. **Edwards, L.J.**, Helms, R.W. (1992). **Comparing Transformations Using Tests of Separate Families.** *Institute of Statistics Mimeo Series, No. 1894*, University of North Carolina at Chapel Hill.
6. **Edwards, L.J.**, Helms, R.W. (1991) **On Choosing Between a Linear or Log-linear Regression Model,** 1991.
7. Helms, R.W., **Edwards, L.J.** (1991). **Analysis of Irregular and/or Incomplete Data From Crossover Designs Using Mixed Models with Linear Covariance Structure.** *Proceedings of the Biopharmaceutical Section*, American Statistical Association.

Teaching

Graduate Course - UAB Department of Biostatistics

1. **Edwards, L.J.** (Spring 2021). **Biostatistics 735-6B - Advanced Inference.** Text Book used: *Required:* E. L. Lehmann, *Elements of Large-sample Theory*, Springer, New York, 1999; *Supplemental:* P.K. Sen and J M Singer, *Large Sample Methods in Statistics: An Introduction with Applications*, Chapman and Hall/CRC , New York-London 1993. 8 enrolled students.
2. **Edwards, L.J.** (Spring 2020). **Biostatistics 760 - Applied Longitudinal Data Analysis.** Text Books used: *Required:* Hedeker, Donald and Gibbons, Robert D. (2006). *Longitudinal Data Analysis*. Wiley and Sons, Inc.; *Supplemental:* Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 3 enrolled students.
3. **Edwards, L.J.** (Spring 2018). **Biostatistics 760 - Applied Longitudinal Data Analysis.** Text Books used: *Required:* Hedeker, Donald and Gibbons, Robert D. (2006). *Longitudinal Data Analysis*. Wiley and Sons, Inc.; *Supplemental:* Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 10 enrolled students, 2 audit.

Graduate Course - UNC Department of Biostatistics

1. **Edwards, L.J.** (Fall 2016). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Books used: *Required:* Hedeker, Donald and Gibbons, Robert D. (2006). *Longitudinal Data Analysis*. Wiley and Sons, Inc.; *Supplemental:* Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 14 enrolled students, 1 audit.
2. **Edwards, L.J.** (Fall 2015). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Books used: *Required:* Hedeker, Donald and Gibbons, Robert D. (2006). *Longitudinal Data Analysis*. Wiley and Sons, Inc.; *Supplemental:* Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 21 enrolled students.
3. **Edwards, L.J.** (Spring 2015). **Biostatistics 545 - Principles of Experimental Analysis.** Text Book used: Kleinbaum DG, Kupper LL, Nizam A, Muller KE (2008). *Applied Regression Analysis and Other Multivariable Methods*, 4th Edition. 59 enrolled students.
4. **Edwards, L.J.** (Fall 2014). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 26 enrolled students.
5. **Edwards, L.J.** (Spring 2014). **Biostatistics 545 - Principles of Experimental Analysis.** Text Book used: Kleinbaum DG, Kupper LL, Nizam A, Muller KE (2008). *Applied Regression Analysis and Other Multivariable Methods*, 4th Edition. 55 enrolled students.
6. **Edwards, L.J.** (Fall 2013). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 28 enrolled students, 2 Audit.
7. **Edwards, L.J.** (Fall 2011). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 26 enrolled students, 2 Audit.
8. **Edwards, L.J.** (Fall 2010). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 26 enrolled students.
9. **Edwards, L.J.** (Fall 2009). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). *Applied Longitudinal Data Analysis*. Lecture Notes (Stat 732), North Carolina State University. 21 enrolled students / 3 audits.

Teaching (cont.)

10. **Edwards, L.J.** (Fall 2008). **Biostatistics 667 - Applied Longitudinal Data Analysis.** Text Book used: Davidian, Marie (2005). Applied Longitudinal Data Analysis. Lecture Notes (Stat 732), North Carolina State University. 17 enrolled students / 11 audits.
11. **Edwards, L.J.** (Fall 2006). **Biostatistics 740 - Specialized Methods in Health Statistics: Model Selection, Fit, and Association in the Linear Mixed Model for Longitudinal Data.** Text Book used: Class Notes. 5 enrolled students / 2 audits.
12. **Edwards, L.J.** (Spring 2005). **Biostatistics 267 - Advanced Linear Models II.** Text Book used: Davidian, Marie (2001). Applied Longitudinal Data Analysis. Lecture Notes (Stat 732), North Carolina State University. 10 enrolled students / 1 audits.
13. **Edwards, L.J.** (Spring 2004). **Biostatistics 267 - Advanced Linear Models II.** Text Book used: Davidian, Marie (2001). Applied Longitudinal Data Analysis. Lecture Notes (Stat 732), North Carolina State University. 16 enrolled students / 3 audits.
14. **Edwards, L.J.** (Spring 2003). **Biostatistics 267 - Advanced Linear Models II.** Text Book used: Davidian, Marie (2001). Applied Longitudinal Data Analysis. Lecture Notes (Stat 732), North Carolina State University. 8 enrolled students / 3 audits.
15. **Edwards, L.J.** (Spring 2002). **Biostatistics 267 - Advanced Linear Models II.** Text Book used: Davidian, Marie (2001). Applied Longitudinal Data Analysis. Lecture Notes (Stat 732), North Carolina State University. 9 enrolled students / 2 auditing students.
16. **Edwards, L.J.** (Spring 2001). **Biostatistics 267 - Advanced Linear Models II.** Text Book used: Helms, Ronald W. (1996). The Joy of Modeling: General Linear Models for the Analysis of Continuous Data. Unpublished draft text book. 7 enrolled students / 4 audits.
17. **Edwards, L.J.** (Spring 1998). **Biostatistics 145 - Principles of Experimental Analysis.** Text Book used: Applied Regression Analysis and Other Multivariable Methods, 3rd ed. Kleinbaum, D.G., Kupper, L.L., Muller, K.E., Nizam, A. 67 enrolled students.
18. **Edwards, L.J.** (Spring 1995). **Biostatistics 145 - Principles of Experimental Analysis.** Text Book used: Applied Regression Analysis and Other Multivariable Methods, 2nd ed. Kleinbaum, D.G., Kupper, L.L., Muller, K.E. 50 enrolled students.
19. **Edwards, L.J.** (Spring 1994). **Biostatistics 145 - Principles of Experimental Analysis.** Text Book used: Applied Regression Analysis and Other Multivariable Methods, 2nd ed. Kleinbaum, D.G., Kupper, L.L., Muller, K.E. 60 enrolled students.
20. **Edwards, L.J. et. al.** (Fall 1999). **Clinical Research Program 240 - Fundamental Concepts of Biostatistics.** Text Book used: Intuitive Biostatistics. Motulsky, H. (1995). Approximately 20 third-year medical students.

Graduate Short Course

1. **Edwards, L.J., Douglas, C., Mitchell, C., Smith, C.** (December 15-18, 2008). **Quantitative Skills Sessions for First-year Biomedical Students.** Short course taught to first-year biomedical graduate students which presented an overview of biostatistical methods and example applications from collaborations with biomedical graduate students on the IMSD training program to demonstrate what tests to use and when, and how and when to consult with a biostatistician on data analysis. Approximately 120 students.
2. **Edwards, L.J., Douglas, C., Mitchell, C., Simpson, S., Smith, C.** (December 14-20, 2007). **Biostatistics Short Course for Biomedical Graduate Students.** Short course taught to biomedical graduate students which presented an overview of biostatistical methods and example applications from collaborations with biomedical graduate students on the IMSD training program to demonstrate what tests to use and when, and how and when to consult with a biostatistician on data analysis. Approximately 100 students.

Teaching (cont.)

3. **Edwards, L.J.**, Bennett, T., Schoenbach, V., Helms, R.W. (July 12-17, 1998). **Summer Public Health Research Institute on Minority Health**. Short course taught at the Fourth Annual Summer Public Health Research Institute at the University of North Carolina School of Public Health. Approximately 25 students onsite. Approximately 1000 students at videoconference sites.
4. **Edwards, L.J.** (October 24, 1997). **Longitudinal Clinical Trials in Cystic Fibrosis: Fundamentals of Sample Size and Analysis of Changes in FEV₁**. Four-hour course taught at the Eleventh Annual North American Cystic Fibrosis Conference in Nashville, Tennessee. Approximately 55 students.
5. **Edwards, L.J.**, Bennett, T., Browne, D.C., Helms, R.W. (June 22-27, 1997). **Summer Public Health Research Institute on Minority Health**. Short course taught at the Third Annual Summer Public Health Research Institute at the University of North Carolina School of Public Health. Approximately 70 students onsite. Approximately 500 students at videoconference sites.
6. **Edwards, L.J.** and FitzSimmons, S.C. (October 24, 1996). **Statistical Analysis Strategies to Analyze Changes in FEV₁**. Four-hour course taught at the Tenth Annual North American Cystic Fibrosis Conference in Orlando, Florida. Approximately 100 students.
7. **Edwards, L.J.**, Bennett, T., Browne, D.C., Helms, R.W. (June 16-21, 1996). **Summer Public Health Research Institute on Minority Health**. Short course taught at the Second Annual Summer Public Health Research Institute at the University of North Carolina School of Public Health. Approximately 70 students.
8. **Edwards, L.J.** (October 14, 1995). **Biostatistics for the CF Researcher**. Four-hour course taught at the Ninth Annual North American Cystic Fibrosis Conference in Dallas, Texas. Approximately 50 students.
9. **Edwards, L.J.**, Bennett, T., Browne, D.C., Helms, R.W. (June 18-23, 1995). **Summer Minority Public Health Institute**. Short course taught at the First Annual Summer Minority Public Health Institute at the University of North Carolina School of Public Health. Approximately 75 students.
10. **Edwards, L.J.**, Bennett, T., Browne, D.C. (July 25-29, 1994). **Race, Ethnicity, and Public Health Research: Issues and Methods**. Short course taught at the 29-th Annual Graduate Summer Session in Epidemiology at the University of Michigan School of Public Health. Approximately 50 students.

Undergraduate - UNC

1. Edwards, L.J. (May 1993-August 1993). **Summer Pre-Graduate Research Experience Program (SPGRE)**. The objective of the SPGRE Program is to expose qualified minority undergraduate students to the graduate research experience. I was the faculty preceptor for two rising juniors. I introduced the students to basic probability and statistics, data collection, data management, data analysis, and SAS programming. The students' research paper was titled "Measuring Measurement Error Variability in Pulmonary Lung Function Tests".
2. Edwards, L.J. (May 1994-August 1994). **Summer Pre-Graduate Research Experience Program (SPGRE)**. I was the faculty preceptor for four undergraduate students consisting of two rising juniors and two rising seniors. The two rising seniors were from the prior summer. I introduced the two rising juniors to basic probability and statistics, data collection, data management, data analysis, and SAS programming. I introduced the two rising seniors to more challenging exercises in the same topics. The students' research paper was titled "Factors Predictive of Gender Differences in Violent Behaviors Among African-American Adolescents".

The two rising seniors were admitted into the Masters/PhD Program in the Department of Biostatistics at Harvard University for Fall 1995. Both received their Sc.D. from the Department of Biostatistics at Harvard University in 2001.

Undergraduate - UNC

3. Edwards, L.J. (May 1995-August 1995). **Summer Pre-Graduate Research Experience Program (SPGRE)**. I was the faculty preceptor for two rising seniors. The two rising seniors were from the prior summer. I introduced the students to more challenging exercises in basic probability and statistics, data collection, data management, data analysis, and SAS programming. The students' research paper was titled "Sample Size and Power Considerations for Selected Variables in the RAPP Project".

One of the rising seniors was admitted into the PhD Program in the Department of Biostatistics at Harvard University for Fall 1996. The student received an Sc.D. from the Department of Biostatistics at Harvard University in 2002.

4. Edwards, L.J. and Schell, M.J. (May 1997-August 1997). **Summer Pre-Graduate Research Experience Program (SPGRE)**.

I, along with Dr. Michael J. Schell (Research Associate Professor of Biostatistics), were the faculty preceptors for two rising juniors. I introduced the students to basic probability and statistics, data collection, data management, data analysis, and SAS programming. The students' research paper was titled "A Statistical Analysis of Amino Acid and Codon Usage in Organisms".

One of the rising juniors was admitted into the MS/PhD Program in the Department of Biostatistics, School of Medicine, at Virginia Commonwealth University for Fall 1998. The student received a PhD in January 2004. The other student was admitted into the MS/PhD Program in Operations Research at North Carolina State University for Fall 2000. The student received a PhD in Fall 2006.

Committees Served

Member of UNC IRB Scientific Review Subcommittee (April 2012-present)
Member of Clinical Research Committee of the Cystic Fibrosis Foundation (Oct 2011-present)
Graduate Admissions Committee, UNC-CH Department of Biostatistics (1992-1997)
Committee on Opportunities for the Underrepresented, UNC-CH Department of Biostatistics (1992-January 1996)
Clinical Review Committee of the National Cystic Fibrosis Foundation (1994-2002)
University Faculty Council, UNC-CH (Alternate, 1993)
Minority Health Research and Education Committee, UNC-CH SPH (1993-December 1996)
Director of Information Technology and Research Support, UNC-CH Department of Biostatistics (1997)
Head of Information Technology Support Unit, UNC-CH Department of Biostatistics (2000-2002)
SPH Academic Programs Committee (2001-2004)
Member of SAMSI Local Development Committee (Sept. 2003-2006)
SAMSI Faculty Fellow (August 2004 - August 2005)
Member of NIH Clinical and Integrative Cardiovascular Science (CICS) Study Section (2006 - 2011)
Graduate Admissions Committee, UNC-CH Department of Biostatistics (2009-present)
Member, UNC-CH Academic Steering Planning Committee (2009-2011)
Chair, Faculty Diversity Committee, UNC-CH Department of Biostatistics (2009-2010)

Dissertation Committees/Masters Student Advisees

I) Doctoral Students (serving/served on dissertation committees)

1. Steve Ampah - Biostatistics (March 2018 - November 2020)
Dissertation: Marginalized Models with Heterogeneous Random Effects for Zero-inflated Longitudinal Count Data
Degree Enrolled: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics
2. Tarrant McPherson - Biostatistics (June 2018 - Present)
Dissertation: Power Computation for the Linear Mixed Model for Longitudinal Data
Degree Enrolled: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics
3. Justin Leach - Biostatistics (December 2017 - July 2020)
Dissertation: An Exploration on the Effectiveness of Bayesian Shrinkage Priors in Generalized Linear Models when the Predictors are Images
Degree Enrolled: Ph.D.
Advisor: **Immaculada Aban**, Biostatistics
4. Christina Glenn - Biostatistics (April 2019 - Present)
Dissertation: Depression and Chronic Disease: Examining the Relationship Between Clinical Diagnosis and Self-report data in Participants with Multiple Sclerosis (MS)
Degree Enrolled: DrPH
Advisor: **Stacey Cofield**, Biostatistics
5. Sara Sims - Psychology (July 2019 - Present)
Dissertation: Cognition and the brain of the healthy oldest old
Degree Enrolled: PhD
Advisor: **Kristina Visscher**, Neurobiology
6. Byron Jaeger - Biostatistics (August 2014 - March 2017)
Dissertation: Extending the R^2 to the Generalized Linear Mixed Model for Longitudinal Data
Degree Enrolled: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics
7. Jacob Wulff - Biostatistics (January 2015 - August 2018)
Dissertation: Metabolomics for Inborn Errors of Metabolism
Degree Enrolled: DrPH
Advisor: **Lloyd Edwards**, Biostatistics
8. Emily Butler - Biostatistics (January 2015 - November 2016)
Dissertation: Using Patient Preferences to Estimate Optimal Treatment Strategies for Competing Outcomes
Degree Obtained: Ph.D.
Advisor: **Michael Kosorok**, Biostatistics
9. John Bainbridge - Biostatistics (January 2015 - November 2016)
Dissertation: Modeling the Diffusion of Sentinel Lymph Node Biopsy in Breast Cancer Treatment
Degree Obtained: DrPH
Advisors: **Chirayath M. Suchindran and Pranab K. Sen**, Biostatistics
10. Che Smith - Biostatistics (August 2009 - August 2015)
Dissertation: Model Selection for Nonnested Linear Mixed Models
Degree Obtained: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics
11. Christian Douglas - Biostatistics (August 2009 - December 2014)
Dissertation: Statistical Methods to Assess the Effect of Mortality on Estimates of Rates of Change and Variability in a Longitudinal Study of the Elderly

Degree Obtained: DrPH
Advisor: **Lloyd Edwards**, Biostatistics

Dissertation Committees/Masters Student Advisees

12. Kelley Wekheye- Biostatistics (January 2013 - June 2014)
Dissertation: Piecewise Linear Mixed Models with Adjustment for Left Truncation Due to Lower Detection Limits
Degree Obtained: DrPH
Advisor: **John Preisser**, Biostatistics
13. Tandra Hillard - Health Policy and Management (January 2012 - May 2015)
Dissertation: Examining Rural Vs. Urban Disparities In Community-Based Helper Support And Residential Care Transitions Among Medicare Beneficiaries With Dementia And Functional Limitations
Degree Obtained: DrPH
Advisor: **Peggye Dilworth-Anderson**, Health Policy and Management
14. Bo Qin - Nutrition (August 2012 - June 2014)
Dissertation: Diet and Cognitive Changes in Chinese Older Adults
Degree Obtained: PhD
Advisor: **Michelle Mendez**, Nutrition
15. Annie Green Howard - Biostatistics (August 2011 - April 2012)
Dissertation: Missing Data in Non-parametric Tests of Correlated Data
Degree Obtained: PhD
Advisor: **Shrikant Bangdiwala**, Biostatistics
16. Jeanine Matuszewski - Biostatistics (September 2006 - November 2011)
Dissertation: Properties of R^2 Statistics for Fixed Effects in the Linear Mixed Model
Degree Obtained: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics
17. Kunthel By - Biostatistics (December 2009 - June 2011)
Dissertation: Bias Sampling, Nuisance Parameters, and Estimating Equations
Degree Obtained: Ph.D.
Advisor: **Bahjat Qaqish**, Biostatistics
18. Margaret Adgent - Epidemiology (April 2009 - May 2010)
Dissertation: Soy-Based Infant Formula and Gender-Specific Child Development: An Assessment of Language Acquisition, Play Behavior, and Age at Menarche
Degree Obtained: Ph.D.
Advisor: **Julie Daniels**, Epidemiology
19. Eugenio Andraca-Carrera - Biostatistics (June 2007 - June 2008)
Dissertation: Approaches to parameter and variance estimation in generalized linear models
Degree Obtained: Ph.D.
Advisor: **Bahjat Qaqish**, Biostatistics
20. Daniela Sotres-Alvarez - Biostatistics (January 2008 - December 2009)
Dissertation: Latent class and latent transition models for studying dietary patterns
Degree Obtained: DrPH
Advisor: **Amy Herring**, Biostatistics
21. Steven Enck - Biostatistics (January 2007 - October 2009)
Dissertation: Mixtures of Linear Mixed Models with Structured, Class-specific Variance Components
Degree Obtained: DrPH
Advisor: **Paul Stewart**, Biostatistics
22. Sean Simpson - Biostatistics (September 2006 - July 2008)
Dissertation: General Linear Models With Generalized AR(1) Covariance Structure For Longitudinal And Spatial Data
Degree Obtained: Ph.D.
Advisor: **Lloyd Edwards**, Biostatistics

Dissertation Committees/Masters Student Advisees

23. Jean Orelien - Biostatistics (January 2001 - September 2007)
Dissertation: Use of Pseudo- R^2 for Assessing Goodness-of-Fit and Model Selection for Longitudinal Data in the Linear Mixed Model
Degree Obtained: DrPH
Advisor: **Lloyd Edwards**, Biostatistics
24. Anita Abraham - Biostatistics (January 2006 - July 2008)
Dissertation: Model Selection Techniques in the Linear Mixed Model
Degree Obtained: DrPH
Advisor: **Lloyd Edwards**, Biostatistics
25. Matthew Gribbin - Biostatistics (June 2006 - May 2007)
Dissertation: Better Power Methods for the Univariate Approach to Repeated Measures
Degree Obtained: DrPH
Advisor: **Keith Muller**, University of Florida Biostatistics
Co-Chair: **Lloyd Edwards**, Biostatistics
26. Jamie Powers - Biostatistics (September 2004 - 2013)
Dissertation: Statistical Issues in Psychiatry: Bipolar Disorder Clinical Trials
Degree Sought: DrPH
Advisor: **Paul Stewart**, Biostatistics
27. Shelley Francis - Maternal and Child Health (January 2004 - September 2005)
Dissertation: An HIV Risk Behavior Profile of African American Adolescent Children of Crack Using Women and the Potential for Faith-Based HIV Prevention Education
Degree Obtained: PhD
Advisor: **Vijaya Hogan**, Maternal and Child Health
28. Matthew Gurka - Biostatistics (January 2002 - May 2004)
Dissertation: The Box-Cox Transformation in the General Linear Mixed Model for Longitudinal Data
Degree Obtained: PhD
Advisor: **Lloyd Edwards**, Biostatistics
29. George Capuano - Biostatistics (January 2003 - April 2005)
Dissertation: A Joint Latent Autoregressive model for Patient Dropout and Longitudinal Health Related Quality of Life Subject to Informative Missingness
Degree Obtained: PhD
Advisor: **Pranab K. Sen**, Biostatistics
30. David Hubacher - Epidemiology (January 1995 - December 1996)
Dissertation: Assessing the Medical Benefit of Frequent Clinical Contact for IUD Users
Degree Obtained: PhD
Advisor: **Judith Fortney**, Epidemiology
31. Ho Kim - Biostatistics (October 1994 - July 1996)
Dissertation: Nonparametric and Robust Procedures for Bioequivalence Models with Measurement Errors
Degree Obtained: PhD
Advisor: **Pranab K. Sen**, Biostatistics
32. Robert Lyles - Biostatistics (January 1994 - January 1996)
Dissertation: Contributions to the Modeling of Environmental Exposures and Their Health-Related Effects
Degree Obtained: PhD
Advisor: **Larry Kupper**, Biostatistics
33. Solange Andreoni - Biostatistics (September 1993 - July 1996)
Dissertation: Repeated Measurements on Diagnostic Variables in Multi-Visit Clinical Trials
Degree Obtained: PhD
Advisor: **Pranab K. Sen**, Biostatistics

Dissertation Committees/Masters Student Advisees

34. Vijaya Hogan - Maternal and Child Health (April 1993 - July 1994)
Dissertation: Effectiveness Training and Timing of Antenatal Risk Intervention in Reducing Preterm Births Among Black Women
Degree Obtained: DrPH
Advisor: **Milton Kotelchuck**, Maternal and Child Health
35. Sandra Stinnett - Biostatistics (January 1993 - December 1993)
Dissertation: Collinearity in Mixed Models
Degree Obtained: DrPH
Advisor: **Ronald W. Helms**, Biostatistics
36. Dennis Wallace - Biostatistics (Jan. 1992 - May 1993)
Dissertation: An Approximate F-Statistic for Testing Population Effects in Longitudinal Studies Via Mixed Models
Degree Obtained: Ph.D.
Advisor: **Ronald W. Helms**, Biostatistics
37. Emilia Sakurai - Biostatistics (June 1991 - Dec. 1992)
Dissertation: Simultaneous Nonparametric Tests in Two-Way Layouts
Degree Obtained: Ph.D.
Advisor: **Dana Quade**, Biostatistics
38. Cheryl Blackmore - Epidemiology (June 1990 - May 1992)
Dissertation: Racial Differences in the Rates of Idiopathic Preterm Labor and Preterm Rupture of Membranes in Central North Carolina
Degree Obtained: Ph.D.
Advisor: **David Savitz**, Epidemiology

II) Masters Students (Lloyd Edwards thesis advisor)

1. Scott van Buren - Biostatistics (January 2015- May 2015)
Thesis: Computing Confidence Intervals for R^2_{β} in the Linear Mixed Model and Applications to Model Selection
Degree: MS
2. Tara Rao - Biostatistics (January 2015- May 2015)
Thesis: A Longitudinal Data Analysis Of Hourly Glucose Measurements
Degree: MS
3. Yamini Virkud - Biostatistics (January 2014- May 2014)
Thesis: Baseline Predictors of the Safety of Peanut Oral Immunotherapy
Degree: MPH
4. Kristen Much - Biostatistics (May 2012- July 2012)
Thesis: Bootstrapping for Estimation of Internal Validity of a Predictive Logistic Regression Model in a Drug Comparator Cohort
Degree: MS
5. Kaitlyn Fernandez - Biostatistics (January 2012 - May 2012)
Thesis: Statistical Analysis of Patellofemoral Pain Syndrome and Anterior Cruciate Ligament Tears: Using a Multilevel Generalized Linear Mixed Model Approach
Degree: MPH
6. Magdalena López-Charneco - Biostatistics (January 2011 - July 2011)
Thesis: Comparison Between Missing Data Mechanisms in the Linear Mixed Model for a Repeated Measures Study of Infant Malnutrition in India
Degree: MPH

II) Masters Students (Lloyd Edwards thesis advisor)

7. Ali Faiz - Biostatistics (January 1996 - May 1997)
Thesis: Analysis of Change in FEV₁ for Patients with Cystic Fibrosis Lung Disease
Degree: MS
8. Valerie G. Smith - Biostatistics (January 1997 - December 1997)
Thesis: Survey of Statistical Methods Used in Minority Health Research
Degree: MPH
9. Pamela LaDuke - Biostatistics (January 1997 - July 1997)
Thesis: Power Estimates for Longitudinal Pulmonary Function in Cystic Fibrosis Research
Degree: MS
10. Barbara Prillaman - Biostatistics (September 1994 - June 1995)
Thesis: Repeated Measures Analysis of IV Ondansetron in the Prevention of Post-Operative Nausea and Vomiting
Degree: MS
11. Laura Helms - Biostatistics (January 1994 - May 1994)
Thesis: Using Cumulative Plots to Detect Biased Assignments in Unbalanced Designs
Degree: MPH
12. Di Liu - Biostatistics (August 1993 - December 1993)
Thesis: Mixed Model Analysis of Active Sleep in Preterm Infants: A Comparison of Mixed Model Analysis Results Obtained from Different Algorithms and Methods
Degree: MPH
13. Tamara Pinkett - Biostatistics (June 1991 - May 1992)
Thesis: Assessing Measurement Error Variability for Some Variables in the SOLVD Study
Degree: MPH