

Jessica Lavery

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EDUCATION

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| 2014 | Master of Science in Biostatistics
University of North Carolina Chapel Hill , Chapel Hill, NC

<i>Relevant Biostatistics Coursework:</i> Probability and Statistical Inference, Longitudinal Data Analysis, Categorical Data Analysis, Statistical Methods, General Linear Models, Design of Public Health Studies, Epidemiology, Survival Analysis, Statistical Consulting

<i>Master's Thesis:</i> A simulation study comparing different methods of handling missing data in the context of type I diabetes clinical trials. |
| 2012 | Bachelor of Science in Statistics, <i>cum laude</i>
Loyola University Maryland , Baltimore, MD |

HONORS & AWARDS

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| 2016, 2017 | Travel award recipient to the Women in Statistics and Data Science conference in Charlotte, NC (2016) and La Jolla, CA (2017) |
| 2012 | Inducted as a member of Pi Mu Epsilon, the National Mathematical and Statistics Honor Society |
| 2011 | Recipient of a full scholarship to the National Heart Lung and Blood Institute-funded Boston University Summer Institute for Training in Biostatistics. The program modules were in biostatistics, epidemiology, clinical trials, statistical genetics and training in SAS. |

PROFESSIONAL EXPERIENCE

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| 2017-Present | Research Biostatistician (Feb 2018-Present), Assistant Research Biostatistician (Mar 2017-Feb 2018), Memorial Sloan Kettering Cancer Center <ul style="list-style-type: none">● Collaborate with health services researchers to answer questions related to healthcare utilization and outcomes for patients with cancer using large population-based administrative databases (Surveillance, Epidemiology, and End Results (SEER)-Medicare linked data, Medicare claims).● Guide study design, conduct statistical analyses, interpret results and write methods and results sections of manuscripts.● Contribute to grant planning and writing.● Authored two manuscripts (one accepted for publication, one being prepared for submission) validating the feasibility of using Medicare claims for cancer-specific analyses.● Developed a repository of SAS macros for routine tasks (e.g. pulling claims from SEER-Medicare data) to improve efficiency and reproducibility. |
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- Built a project management tool through the R Shiny Application package to easily view the status of past, current and upcoming projects across all statisticians in the Health Outcomes Research Group.
- 2016-2017 **Biostatistician, NYU Langone Medical Center**
 - Collaborated with the Department of Population Health to analyze orthopaedic health outcomes utilizing large administrative databases (Healthcare Cost and Utilization Project, Statewide Planning and Research Cooperative System, National Ambulatory Medical Care Survey).
 - Consulted with faculty, residents, fellows and musculoskeletal research staff in the Department of Orthopedic Surgery to design studies, manage and analyze data, present results, and write methods and results sections of manuscripts.
- 2014-2016 **Biostatistician, Columbia University Medical Center**
 - Provided data management, programming and biostatistics support for the Safe Motherhood Initiative (Merck for Mothers), examining the impact of developing standard approaches to treat obstetric emergencies.
 - Utilized large administrative claims databases (National Hospital Discharge Survey, National Vital Statistics System, Premier Perspectives) to explore maternal-fetal outcomes via hierarchical models, age-period-cohort models, and meta-analyses, among other methods.
 - Served as a teaching assistant for Applied Methods in Health Services and Outcomes Research (Spring 2015 and 2016).
- 2013-2014 **Graduate Research Assistant, Rho, Inc.**
 - Provided programming support to the federally funded autoimmune disease team by creating and modifying analysis datasets, tables, listings and figures.
- 2013-2014 **Biostatistics Intern, Lineberger Comprehensive Cancer Center**
 - Created an experiential learning internship to gain exposure to the field of biostatistics by volunteering to assist a Master's level statistician with cancer studies by collaborating with investigators, programming analysis datasets, conducting analyses, and assisting with organizational tasks.
- 2012-2013 **Statistical Programmer I, Stat-Tech Services, LLC**
 - Provided programming support as specified in analysis plans for tables, graphs and listings. Validated statistical output and perform quality control as required.
 - Provided data entry and quality control support of statistical packages. Documented data management and validation tasks per standard operating procedures. Responsible for creating, organizing and checking project file content.

LEADERSHIP & VOLUNTEER EXPERIENCE

- 2019 Volunteer Coordinator, **Caucus for Women in Statistics**
- 2019 Volunteer, **DataKind**
 - Review applications for Google.org's Artificial Intelligence (AI) Impact Challenge on the criteria of impact, feasibility, use of AI, scalability and

responsibility in order to help identify the most promising ideas that aim to apply artificial intelligence to achieve positive social impact

- 2018 Mentor, **1000 Girls, 1000 Futures**
- Share experiences, advice, and resources with a high school student in Suez City, Egypt throughout the course of a year-long mentoring program via the New York Academy of Sciences.
 - **Corresponding publication:** Ibrahim A, **Lavery JA**, Parkinson M, Neillie E, Williams J. 1000 girls, 1000 futures: The New York Academy of Sciences Mentoring Initiative. AmStat News: The Membership Magazine of the American Statistical Association. 2018 November.
- Fall 2010; 2011-2012 Resident Assistant, **Loyola University Office of Student Life**
- Built community and managed conflict for 70 first-year students.
- May 2012 Volunteer, **Encounter El Salvador**, San Salvador and Santa Marta, El Salvador
- Participated in a ten-day immersion trip to serve the people of San Salvador and Santa Marta in solidarity and to gain a thorough understanding and appreciation of the country's history.
- Spring 2011 Volunteer, **Caritas Roma**, Rome, Italy
- Volunteered weekly at a soup kitchen focused on serving the immigrant and refugee community in Rome.
- 2009-2012 President, **Loyola University's Chapter of Colleges Against Cancer**
- Organized fundraisers for American Cancer Society.
 - Coordinated sign up and transportation for volunteers from Loyola to cheer on Memorial Sloan Kettering Fred's Team runners for the New York City Marathon (2009-2011).

OTHER EXPERIENCE

- 2018 Ad hoc reviewer, **Journal of Urology**
- 2018 Ad hoc reviewer, **BMJ Open**
- 2014 Ad hoc reviewer, **British Journal of Obstetrics and Gynaecology**
- 2014 Ad hoc reviewer, **Paediatric and Perinatal Epidemiology**
- 2012 Participant, **SAMSI Undergraduate Workshop**, Research Triangle Park, NC
- 2012 Invited participant, **Women's Leadership Conference**, Baltimore, MD
- 2011 Student, **Loyola University Study Abroad Program**, Rome, Italy

SKILLS

- SAS (expert)
- R and RStudio
- Review Manager (RevMan)
- REDCap
- Git and GitHub (actively learning)
- LaTeX
- Microsoft Office Suite
- Conversational fluency in Italian

PROFESSIONAL PRESENTATIONS

- **Lavery JA** (2019; contributed presentation): *Real World Evidence to Profile Hospitals' Quality of Surgical Cancer Care*. Presented at AcademyHealth Datapalooza. Washington, DC.

- Session organizer (2018; topic-contributed session): Ash A, Gatsonis C, Kalbfleisch J, Zaslavsky A. *Practical and methodological issues related to profiling hospitals in the United States*. Joint Statistical Meetings. Vancouver, BC.
- **Lavery JA** (2017; contributed presentation) *Language and tools for establishing influence as an early-career statistician*. Presented at the Women in Statistics and Data Science conference. La Jolla, California.
 - **Corresponding publication:** Lavery JA. Early-Career Statistician Offers Language, Tools for Establishing Influence. *AmStat News: The Membership Magazine of the American Statistical Association*. 2018 June.
- **Lavery JA** (2016; invited presentation) *Plurality and perinatal mortality: preterm delivery as a mediating effect*. Presented at the Perinatal Epidemiology scientific forum at the Society for Maternal Fetal Medicine's 36th Annual Pregnancy Meeting, Atlanta, Georgia.
- Ananth CV, **Lavery JA** (April 2015, July 2015, January 2016) Biostatistics Coordinating Center presentation for quarterly meetings of the Safe Motherhood Initiative, American Congress of Obstetricians and Gynecologists, New York.

PUBLICATIONS

1. Salz T, **Lavery JA**, Lipitz-Snyderman AN, Boudreau DM, Moryl N, Gillespie EF, Korenstein D. Trends in Opioid Use Among Older Survivors of Colorectal, Lung, and Breast Cancers. *J Clin Oncol*. 2019 Feb 28;JCO1800938. doi: 10.1200/JCO.18.00938. [Epub ahead of print] PubMed PMID: 30817249.
2. **Lavery JA**, Lipitz-Snyderman A, Li DG, Bach PB, Panageas KS. Identifying Cancer-Directed Surgeries in Medicare Claims: A Validation Study Using SEER-Medicare Data. *JCO Clin Cancer Inform*. 2019 Feb;(3):1-24. doi: 10.1200/CCI.18.00093. PubMed PMID: 30715928.
3. Goffman D, Ananth CV, Fleischer A, D'Alton M, **Lavery JA**, Smiley R, Zielinski K, Chazotte C; Safe Motherhood Initiative Obstetric Hemorrhage Work Group. The New York State Safe Motherhood Initiative: Early Impact of Obstetric Hemorrhage Bundle Implementation. *Am J Perinatol*. 2019 Jan 4. doi: 10.1055/s-0038-1676976. [Epub ahead of print] PubMed PMID: 30609429.
4. Phillips D, Fisher N, **Lavery JA**, Karia R, Kalet A. Assessing resident perceptions of electronic medical record utilization: what affects the quality of clinical notes? *Bull Hosp Jt Dis*. 2018;76(4):273-7.
5. Nobel TB, **Lavery JA**, Barbetta A, Gennarelli RL, Lidor AO, Jones DR, Molena D. National guidelines may reduce socioeconomic disparities in treatment selection for esophageal cancer. *Dis Esophagus*. 2018 Nov 28. doi: 10.1093/dote/doy111. [Epub ahead of print] PubMed PMID: 30496376.
6. Lowry M, Buza J, Liu J, Rosenbaum H, **Lavery J**, Bosco J, Walker PS. Surgical Accuracy of an Early Intervention Knee Implant Instrumentation System. *J Knee Surg*. 2018 Nov;31(10):979-985. doi: 10.1055/s-0038-1625959. Epub 2018 Jan 30. PubMed PMID: 29381882.
7. Simpson LL, Rochelson B, Ananth CV, Bernstein PS, D'Alton M, Chazotte C, **Lavery JA**, Zielinski K; Safe Motherhood Initiative Severe Hypertension in Pregnancy Work Group. Safe Motherhood Initiative: Early Impact of Severe Hypertension in Pregnancy Bundle Implementation. *AJP Rep*. 2018 Oct;8(4):e212-e218. doi: 10.1055/s-0038-1673632. Epub 2018 Oct 11. PubMed PMID: 30319925; PubMed Central PMCID: PMC6181646.
8. Friedman AM, Ananth CV, **Lavery JA**, Fleischer AA, Chazotte C, D'Alton ME; Safe Motherhood Initiative Venous Thromboembolism Work Group. Implementing Obstetric Venous Thromboembolism Protocols on a Statewide Basis: Results from New York State's Safe

Motherhood Initiative. Am J Perinatol. 2018 Sep 13. doi: 10.1055/s-0038-1668549. [Epub ahead of print] PubMed PMID: 30212917.

9. Schwarzkopf R, **Lavery JA**, Hooper J, Parikh M, Gold HT. Bariatric Surgery and Time to Total Joint Arthroplasty: Does It Affect Readmission and Complication Rates? Obes Surg. 2017 Nov 22. doi: 10.1007/s11695-017-3034-6. [Epub ahead of print] PubMed PMID: 29168111.
10. Pergolotti M, **Lavery J**, Reeve BB, Dusetzina SB. Therapy Caps and Variation in Cost of Outpatient Occupational Therapy by Provider, Insurance Status, and Geographic Region. Am J Occup Ther. 2018 Mar/Apr;72(2):7202205050p1-7202205050p9. doi: 10.5014/ajot.2018.023796. PubMed PMID: 29426383; PubMed Central PMCID: PMC5807401.
11. Ganta A, Ding D, Fisher N, **Lavery J**, Jain S, Tejawani NC. Continuous Infraclavicular Brachial Block Versus Single-Shot Nerve Block for Distal Radius Surgery: A Prospective Randomized Control Trial. J Orthop Trauma. 2018 Jan;32(1):22-26. doi: 10.1097/BOT.0000000000001021. PubMed PMID: 29040231.
12. Slover J, **Lavery JA**, Schwarzkopf R, Iorio R, Bosco J, Gold HT. Incidence and Risk Factors for Blood Transfusion in Total Joint Arthroplasty: Analysis of a Statewide Database. J Arthroplasty. 2017 Sep;32(9):2684-2687.e1. doi: 10.1016/j.arth.2017.04.048. Epub 2017 May 4. PubMed PMID: 28579446.
13. Ananth CV, Friedman AM, Keyes KM, **Lavery JA**, Hamilton A, Wright JD. Primary and Repeat Cesarean Deliveries: A Population-based Study in the United States, 1979-2010. Epidemiology. 2017 Jul;28(4):567-574. doi: 10.1097/EDE.0000000000000658. PubMed PMID: 28346271.
14. Ananth CV, **Lavery JA**, Friedman AM, Wapner RJ, Wright JD. Serious maternal complications in relation to severe pre-eclampsia: a retrospective cohort study of the impact of hospital volume. BJOG. 2016 Oct 21. doi: 10.1111/1471-0528.14384. [Epub ahead of print] PubMed PMID: 27770512.
15. Doll KM, **Lavery JA**, Snively AC, Gehrig PA. Intraoperative Handoffs and Postoperative Complications Among Patients Undergoing Gynecologic Oncology Operations. J Healthc Qual. 2017 Jul/Aug;39(4):e42-e48. doi: 10.1097/JHQ.0000000000000042. PubMed PMID: 27348430; PubMed Central PMCID: PMC5183519.
16. **Lavery JA**, Friedman AM, Keyes KM, Wright JD, Ananth CV. Gestational diabetes in the United States: temporal changes in prevalence rates between 1979 and 2010. BJOG. 2017 Apr;124(5):804-813. doi: 10.1111/1471-0528.14236. Epub 2016 Aug 11. PubMed PMID: 27510598; PubMed Central PMCID: PMC5303559.
Corresponding video abstract: <https://vimeo.com/rcog/authorinsights14236>
17. Ananth CV, Friedman AM, **Lavery JA**, VanderWeele TJ, Keim S, Williams MA. Neurodevelopmental outcomes in children in relation to placental abruption. BJOG. 2016 Apr 22. doi: 10.1111/1471-0528.14049. [Epub ahead of print] PubMed PMID: 27102365.
18. Drassinower D, **Lavery JA**, Friedman AM, Levin HI, Običan SG, Ananth CV. The effect of maternal haematocrit on offspring IQ at 4 and 7 years of age: a secondary analysis. BJOG. 2016 Aug 17. doi: 10.1111/1471-0528.14263. [Epub ahead of print] PubMed PMID: 27533357.
19. Andrikopoulou M, **Lavery JA**, Ananth CV, Vintzileos AM. Cervical ripening agents in the second trimester of pregnancy in women with a scarred uterus: a systematic review and metaanalysis of observational studies. Am J Obstet Gynecol. 2016 Aug;215(2):177-94. doi: 10.1016/j.ajog.2016.03.037. Epub 2016 Mar 25. Review. PubMed PMID: 27018469.
20. Lisonkova S, **Lavery JA**, Ananth CV, Chen I, Muraca G, Cundiff GW, Joseph KS. Temporal trends in obstetric trauma and inpatient surgery for pelvic organ prolapse: an age-period-cohort

analysis. *Am J Obstet Gynecol*. 2016 Aug;215(2):208.e1-208.e12. doi: 10.1016/j.ajog.2016.02.027. Epub 2016 Feb 17. PubMed PMID: 26899905.

21. Ananth CV, **Lavery JA**. Biases in secondary analyses of randomised trials: recognition, correction, and implications. *BJOG*. 2016 Jun;123(7):1056-9. doi: 10.1111/1471-0528.13732. PubMed PMID: 27206028.
22. Ananth CV, **Lavery JA**, Vintzileos AM, Skupski DW, Varner M, Saade G, Biggio J, Williams MA, Wapner RJ, Wright JD. Severe placental abruption: clinical definition and associations with maternal complications. *Am J Obstet Gynecol*. 2016 Feb;214(2):272.e1-9. doi: 10.1016/j.ajog.2015.09.069. Epub 2015 Sep 21. PubMed PMID: 26393335.
23. Vahanian SA, **Lavery JA**, Ananth CV, Vintzileos A. Placental implantation abnormalities and risk of preterm delivery: a systematic review and metaanalysis. *Am J Obstet Gynecol*. 2015 Oct;213(4 Suppl):S78-90. doi: 10.1016/j.ajog.2015.05.058. Review. PubMed PMID: 26428506.
24. Pergolotti M, Deal AM, **Lavery J**, Reeve BB, Muss HB. The prevalence of potentially modifiable functional deficits and the subsequent use of occupational and physical therapy by older adults with cancer. *J Geriatr Oncol*. 2015 May;6(3):194-201. doi: 10.1016/j.jgo.2015.01.004. Epub 2015 Jan 19. PubMed PMID: 25614296; PubMed Central PMCID: PMC4459887.