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# DENISE T. ST. JEAN

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## EDUCATION

- 2017–2022 **PhD, Epidemiology** Chapel Hill, NC  
**University of North Carolina at Chapel Hill**  
Advisor: Sylvia Becker-Dreps
- 2014–2015 **MS, Management** Winston-Salem, NC  
**Wake Forest University**
- 2010–2014 **BS, Ecology and Evolutionary Biology** New Haven, CT  
**Yale University**  
Thesis: *Non-Systemic Transmission of Disseminating and Non-Disseminating Strains of Borrelia burgdorferi*  
Advisor: Maria Diuk-Wasser

## RESEARCH EXPERIENCE

- 2018–present **UNC-Chapel Hill School of Medicine, Chapel Hill, NC**  
*Graduate Research Assistant*
- Independent research 15 hours/week including statistical analyses in R under the mentorship of Dr. Sylvia Becker-Dreps.
  - Identifying clinical characteristics and risk factors for campylobacter among a birth cohort of infants in León, Nicaragua.
  - Estimating the association between poverty and acute gastroenteritis among newborns.
- 2019 **Centre for Infectious Disease Research in Zambia, Lusaka, Zambia**  
*Summer Intern*
- Used clinical diarrhea characteristics to develop a clinical tool for classifying diarrhea severity among children.
  - Conducting Receiver Operating Characteristic analysis in R comparing multiple clinical tools for diarrhea severity classification.
  - Estimating the incidence of *Shigella* and Enterotoxigenic *Escherichia coli* among children under five in the Kalikiliki and Mtendere East communities of Lusaka.
- 2018 **MEASURE Evaluation, Chapel Hill, NC**  
*Summer Analyst*
- Assisted with literature review, survey design, and conducted quality checks for qualitative surveys for key populations in Uganda.
  - Developed training materials, PowerPoint presentations, questionnaires, and data entry templates as a part of the Priorities for Local AIDS Control Efforts (PLACE) team.
  - Used SAS and QGIS to identify geographic pockets of unreached HIV/AIDS infections among key populations at the sub-district level.
- 2017-2018 **UNC-Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC**  
*Graduate Research Assistant*

- Independent research 15 hours/week including molecular biology laboratory work and statistical analyses in SAS under the mentorship of Dr. Steven Meshnick.
- Studied the effects of malaria early in pregnancy on pregnancy loss, stillbirth and other adverse pregnancy outcomes in Democratic Republic of Congo, Kenya, Zambia, and Pakistan.
- Assessed interaction between low-dose aspirin and malaria infection on preterm birth and fetal growth restriction.

2016

**Academy of Medical and Public Health Services, Brooklyn, NY**  
*Community Research & Outreach Associate*

- Developed a community map of over 100 local organizations providing low-cost health services, clinical services, and resources relevant to Chinese, Latino, and Caribbean immigrants in the Sunset Park neighborhood.
- Analyzed impact of AMPHS health screenings and education programs from over 150 Mandarin Chinese, Spanish, and English qualitative interviews using SAS and composed a demographic report from this data.
- Measured organizational impact through the number of individuals linked to appropriate primary care and improved patient conditions based on electronic medical record data.

2013-2014

**Yale University School of Public Health, New Haven, CT**  
*Senior Thesis*

- Yearlong independent project, 15 hours/week during academic year, >55 hours/week during summer under the mentorship of Dr. Maria Diuk-Wasser.
- Collected >600 ticks in the field and isolated unique Lyme disease strains.
- Collected climate and GPS information across Connecticut, New York, Vermont, and Rhode Island for Lyme disease spatiotemporal risk models for human infection.
- Initiated and quantified Lyme disease infection and spread in mice to calculate transmission efficiency through non-systemic infection.

2012

**Unite For Sight, Accra, Ghana**  
*Global Impact Fellow*

- Independent research >50 hours/week evaluating patient visual acuity, measuring poverty levels, and enrolling eligible patients into study.
- Conducted a case-control study assessing the relationship between poverty and visual impairment from cataracts among rural Ghanaians.
- Assessed the relationship between cataracts and poverty by comparing economic wellbeing of patients with cataracts versus patients without them; analyses conducted in SAS.
- Conducted 188 in-person interviews to measure poverty levels.

## **PROFESSIONAL EXPERIENCE**

2015 – 2017 **Beghou Consulting, New York, NY**  
*Associate Consultant*

- Created daily dashboards and reports forecasting and tracking client performance through data warehousing, processing, analysis, and visualization.
- Evaluated patterns for discontinuation and switching of prescription pharmaceutical medications among patients for clients in the United States, Canada, China, and Japan using Excel and SAS.

- Developed spatial alignment strategies using Geographic Information Systems to design sales territories for sales forces ranging in size from under 50 to several hundred representatives.

### **TEACHING EXPERIENCE**

Fall 2019      **University of North Carolina at Chapel Hill**, Chapel Hill, NC  
 EPID 711 – Clinical Measurement and Evaluation in Epidemiology  
*Assistant in Instruction*

### **HONORS & FELLOWSHIPS**

2019            Mellon Conference Travel Award - Institute for the Study of the Americas,  
*University of North Carolina at Chapel Hill*

2019            Gillings Student Travel Award, *University of North Carolina at Chapel Hill*

2018–2020      Graduate Tuition Incentive Scholarship, *University of North Carolina at Chapel Hill*

2018–2022      Health Policy Research Scholar, *Robert Wood Johnson Foundation*

2015            Beta Gamma Sigma Honor Society, *Wake Forest University*

2014–2015      PepsiCo Corporate Fellowship, *Wake Forest University*

2012–2014      Edward Bouchet Undergraduate Research Fellowship, *Yale University*

2012            Yale International Summer Award, *Yale University*

2011            Yale Alumni Community Service Fellowship, *Yale University*

### **PRESENTATIONS**

#### **Poster Presentations**

2019            **St. Jean, DT**, Herrera, R, Gutierrez, L Vielot, NA, Gonzalez, F, Reyes, Y, Paniagua, M, Bowman, N, Bucardo, F, Vilchez, S, Becker-Dreps, S. *Clinical characteristics and risk factors for Campylobacter spp gastroenteritis in the first year of life in a Nicaraguan birth cohort*, UNC School of Medicine, Center for Gastrointestinal Biology and Disease Research Competition, Chapel Hill, NC. October 2019.

2014            States, SL, Steeves, TK, **St. Jean, DT**, Krause, PJ, Vannier, EG., Diuk-Wasser, MA. *Evidence of non-systemic Borrelia burgdorferi transmission in the North American vector-host system*, 12<sup>th</sup> Annual Ecology and Evolution of Infectious Disease Conference, Fort Collins, CT. June 2014.

#### **Oral Presentations**

2014            *Non-systemic transmission of disseminating & non-disseminating strains of B. burgdorferi*, Yale University Department of Ecology and Evolutionary Biology Research Symposium, New Haven, CT. May 2014.

2013            *Evaluating the relationship between access to cataract surgery & changes in poverty in Ghana*, Yale University Writing & Research Symposium, New Haven, CT. March 2013.

### **UNIVERSITY SERVICE**

2019-present   **Office of the Executive Vice Chancellor & Provost**. Carolina Engagement Council, University of North Carolina at Chapel Hill. *Graduate Appointee*.

2019-present   **UNC Global**. Carolina Global Council. University of North Carolina at Chapel Hill. *Graduate Appointee*.

2019-present **Yale Alumni Association**, Class of 2014 Secretary. Yale University. *Elected.*

**LEADERSHIP EXPERIENCE**

2017–2019 **Minority Health Conference**, *Speakers & Fundraising Committee*

- Organized and moderated panel discussion entitled “Using Technology & Data to Promote Health Equity” (2018).
- Solicited over \$5,000 in donations and exceeded fundraising goal (2019).

2018 **United Nations Shot@Life Campaign**, *Champion*

Participated in four congressional meetings with North Carolina legislators in Washington, DC to advocate for global childhood immunization programs.

2015–2016 **Cesar Chavez Charter School for Public Policy**, *Thesis Advisor*

Mentored and provided weekly feedback to a high school senior in a yearlong thesis course to complete a 15-20 page research paper and PowerPoint presentation about a current public policy issue.

**MISCELLANEOUS**

**Software & Programming** SAS, R, Microsoft Excel (advanced)

**Professional Affiliations** American Society of Tropical Medicine and Hygiene