

Nedghie Adrien, PhD, MPH
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EDUCATION

- 2023 Doctor of Philosophy (PhD). Epidemiology
Boston University School of Public Health
Dissertation: *Medication use during pregnancy, risk of adverse perinatal outcomes and congenital anomalies: examining mechanisms of systematic bias*
Advisor: Samantha E. Kelleher, PhD, MSPH
- 2014 Master of Public Health (MPH). Global Epidemiology
Emory University, Rollins School of Public Health
Thesis: *Evaluation of the effectiveness of the PsA-TT conjugate vaccine MenAfriVac™ against probable meningococcal meningitis in 1–29-year-olds in Burkina Faso, 2011–2013*
- 2011 Bachelor of Arts (BA). Clinical Psychology
Tufts University
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EXPERIENCE

Academic

- 2025 – **Assistant Professor (Educator-Scholar Track)**
Department of Chronic Disease Epidemiology
Yale School of Public Health, New Haven, CT
- 2023 – 2025 **Postdoctoral Research Fellow**
Reproductive and Perinatal Live Course Epidemiology, CAUSALab, Harvard T.H. Chan School of Public Health, Department of Epidemiology, Boston, MA
- Establish expertise in real-world evidence (RWE) research and causal inference methods.
 - Design and implement epidemiologic studies evaluating safety of antiretroviral therapies in pregnancy using large administrative claims databases.
 - Prepare grant proposals, internal presentations, and manuscripts for publication in high-quality peer review journals both independently and collaboratively.
- 2018 – 2023 **Graduate Statistical Analyst**
Boston University School of Public Health
Massachusetts Center for Birth Defects Research & Prevention, MA Department of Public Health, Boston, MA
- Research assistant and trainee under Martha Werler, DSc and Mahsa Yazdy, PhD, completing doctoral studies by providing epidemiologic and statistical expertise to research projects.
 - Designed, conducted and led epidemiologic studies on dietary and pharmaceutical exposures during pregnancy and risk of adverse fetal outcomes

- Provided statistical support to undergraduate research project on the impact of masking adherence and rates of COVID-19
- Prepared and published manuscripts, reports and presentations on observational studies of medication safety and pregnancy outcomes

2012 – 2014

Graduate Research Assistant

Vaccine-Preventable Diseases Branch

U.S. Centers for Disease Control and Prevention, Atlanta, GA

- Contributed to development of regional surveillance standard operating procedures on novel conjugate meningococcal vaccine (MenAfriVac®) effectiveness studies in Burkina Faso and Niger
- Coordinated surveillance of vaccine introduction capacity-building activities and adverse events following immunization monitoring
- Analyzed data on vaccine safety in pregnancy in Burkina Faso and prepared report for international stakeholders to inform the Ministry of Health's decision on recommendations for pregnant women
- Analyzed vaccine effectiveness data from Burkina Faso for master's thesis to supplement knowledge on impact of MenAfriVac® on incidence of meningococcal meningitis

Public Health Practice

2022 – 2023

Contractor

Accelerated Immunization Team, Health Programme Group, UNICEF HQ, New York, NY (remote position)

- Developed data collection tools for measles and rubella (MR) vaccine coverage survey in Senegal
- Facilitated trainings on data collection and implementation of study to evaluate supplementary MR immunization activities study in Dakar, Senegal to ~30 implementation partners
- Contributed to data coordination, management, quality control and statistical analysis for evaluation of measles-rubella campaigns in Senegal and the Gambia

2019 – 2020

Consultant

CDC Foundation

U.S. Centers for Disease Prevention and Control

Center for Global Health, Vaccine Introduction Team, Atlanta, GA

- Drafted, created, and piloted data collection tools using OpenDataKit (ODK) for evaluation of introduction of Human Papilloma Virus vaccine in Senegal
- Trained data collectors in the field in French, and supervised data collection to ensure data quality, completeness, and accuracy
- Collaborated on resulting peer-reviewed manuscripts to disseminate findings

2017 – 2018

Epidemiologist I

CDC Foundation

U.S. Centers for Disease Control and Prevention

Center for Global Health, Vaccine Introduction Team, Atlanta, GA

- Monitored vaccine campaign sites during the second round of the Oral Cholera Vaccine (OCV) campaign in Feb 2018 in Lusaka, Zambia and provided recommended to improve access, vaccine knowledge and coverage
- Drafted protocols and questionnaires for OCV vaccine effectiveness and vaccine coverage studies in collaboration with the Zambia National Public Health Institute and MOH following the campaign
- Contributing expert to the development of Advancing Maternal Immunization (AMI)'s "Advancing RSV Maternal Immunization: A Gap Analysis Report" on programmatic issues and challenges around introduction of Respiratory Syncytial Virus (RSV) maternal immunization"

2015 – 2017

Oak Ridge Institute for Science and Education (ORISE) Fellow,

U.S Centers for Disease Control and Prevention

Division of Healthcare Quality Promotion, Atlanta, GA

- Conducted supervisory visits of healthcare facilities in several regions in Guinea, provided technical assistance to healthcare staff on proper infection prevention and control (IPC) practices and submitted reports to the IPC focal point from the Ministry of Health
- Developed action plan for IPC activities, provide technical assistance to World Health Organization (WHO) IPC field teams in N'Zérékoré during implementation of Ring IPC in response to cluster of Ebola cases in March 2016
- Co-authored Guinea's infection, prevention, and control (IPC) policy and strategic plan documents to support the implementation of a sustainable national IPC program during 2014 Ebola Virus Disease Emergency Response
- Drafted, reviewed, and edited protocol and data collection forms for point prevalence survey on healthcare- associated infections in Senegal
- Participated in outbreak investigation of an emerging multidrug resistant fungus, *Candida auris* in Panama City, Panama. Activities included conducting general infection control assessments and providing recommendations to hospital staff, administration, and MoH in Spanish

2014 – 2015

Data Coordinator

UCLA Center for Health Policy Research, Los Angeles, CA

- Processed applications to use California Health Interview Survey (CHIS) data by reviewing research proposals
- Assisted researchers with variable selection, and creating project datasets to support research and publication efforts highlighting CHIS data
- Coordinated project approval and implementation, serving as liaison between researchers and statistical unit and reviewing output to protect confidentiality of respondents
- Prepared reports, tables, and graphs using statistical software (SAS®) to support community organizations' efforts to provide a better understanding of the health of Californians

AWARDS & HONORS

- 2024 *Sherri Oliver Stuver Award*, Boston University, Department of Epidemiology.
- Awarded to graduating doctoral students in the Epidemiology Department who have shown exemplary performance as a well-rounded student showing dedication to academics, research, and assisting with teaching
- 2023 *Delta Omega Honor Society*, Alpha Beta Chapter, Boston University
- Election to society based on outstanding performance and scholarship (top 10% academic average of the graduating class with a minimum GPA of 3.95)
- 2021 *Student Dissertation Workshop*, Society for Epidemiologic Research
- Awarded fellowship to support registration expenses for the annual meeting
- 2007 *Balfour Scholarship*, Tufts University
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GRANT SUPPORT

- 2024 – 2026 *Loan Repayment Program* (1L40HD116309-01) – \$26,150.64
Eunice Kennedy Shriver National Institute of Child Health and Human Development
National Institutes of Health, Division of Loan Repayment
Title: “Assessment of Infant Outcomes After *in utero* Exposure to Novel Antiretroviral Therapies”
- 2023 Ruth L. Kirschstein National Research Service Award
National Institutes of Health T32 Training Grant
Grant # T32HD104612
Training Program in Reproductive, Perinatal, and Life Course Epidemiology
Harvard T.H. Chan School of Public Health
Department of Epidemiology
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COMMISSIONED REPORTS

Contributing expert/author

1. PATH. *A Roadmap for Advancing RSV Maternal Immunization*. Seattle: PATH; 2018. Available: <https://www.path.org/resources/advancing-rsv-maternal-immunization-gap-analysis-report/>
2. *Surveillance standards for vaccine-preventable diseases*, second edition. Geneva: World Health Organization. 2018. Licence: CC BY-NC-SA 3.0 IGO. Available: <https://apps.who.int/iris/handle/10665/275754>

INVITED PRESENTATIONS

1. “Leveraging Databases to Assess Trends in Use of Antiretroviral Therapies in Pregnancy.” Works-in-Progress Seminar, Harvard TH Chan Department of Epidemiology. Boston, MA; October 2024
2. “Association between decongestant use during late pregnancy and preterm delivery in NBDPS.” Research Seminar, Massachusetts Department of Public Health. Boston, MA; April 2022
3. “Periconceptional Vasoactive Exposures among Mothers of Amniotic Bands Syndrome and Terminal Transverse Limb Defects Cases.” Research Seminar, Massachusetts Department of Public Health. Boston, MA; September 2019
4. “Evaluation of National Introduction of HPV Vaccine in Senegal.” Research Seminar, Boston University Department of Epidemiology. Boston, MA; October 2019

CONFERENCE PROCEEDINGS (First author only)

1. **Adrien, N.**, Werler, M.M., Petersen, J.M., Parker, S.E., Fox, M.P. Reported Periconceptional Use of Analgesics and Limb Deficiencies in Offspring: Addressing Potential Recall Bias. Oral presentation for Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting. Chicago, IL; June 2022
2. **Adrien, N.**, Werler, M.M., Petersen, J.M., Parker, S.E., Fox, M.P. Reported Periconceptional Use of Analgesics and Limb Deficiencies in Offspring: Addressing Potential Recall Bias. Poster presentation for Society for Epidemiologic Research Annual Meeting, Chicago, IL; June 2022
3. **Adrien, N.**, Orta, O.R., Nestoridi, E., Carmichael, S.L., Yazdy, M.M., and the National Birth Defects Prevention Study. Maternal vitamin D status and risk of select birth defects in the National Birth Defects Prevention Study (1997–2011). Oral presentation for Society for Birth Defects Research and Prevention Annual Meeting. Virtual; June 2021

CONFERENCE ROUNDTABLES

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| 2020, 2021 | Panelist. “Professional guidance for epidemiologists considering returning to school to pursue doctoral studies”.
Society for Epidemiologic Research Annual Meeting Lunchtime Session |
| 2021 | Moderator. “On professional failures.”
Society for Epidemiologic Research Annual Meeting Session |
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TEACHING EXPERIENCE

Primary Instructor

Northeastern University, Boston, MA

Fall 2024, Spring 2025 **PHTH4202: Principles of Epidemiology in Medicine and Public Health**
4 Credits: ~25 students

Student Instructor

Harvard T.H. Chan School of Public Health, Boston, MA

Summer 2024 **EPI208: Introduction to Clinical Epidemiology**
Teaching fellow
Course Director: Heather Baer, ScD

Boston University School of Public Health, Boston, MA

Spring 2022 **EP813: Intermediate Epidemiology**
Teaching Assistant
Instructor: Jaimie Gradus DMSc, DSc, MPH

Fall 2021 **EP854: Advanced Epidemiology**
Teaching Assistant
Instructor: Matthew P. Fox, DSc, MPH

2018, 2019, 2021 **EP850: Applications of Intermediate Epidemiology**
Teaching Assistant
Instructor: Samantha Parker Kelleher, PhD, MSPH

2020 **EP759: Reproductive Epidemiology**
Teaching Assistant
Instructor: Ann Aschengrau, ScD

Spring 2019, 2020 **EP850: Applications of Intermediate Epidemiology**
Teaching Assistant

Instructor: Jaimie Gradus DMSc, DSc, MPH

Invited Lecturer

Boston University School of Public Health, Boston, MA

Fall 2024 Lecture: “Quantitative Bias Analyses”
EP794: Advanced Methods in Reproductive and Perinatal Epidemiology

2021 – 2024 Lecture: “Sensitivity and Quantitative Bias Analyses”
EP850: Applications of Intermediate Epidemiology

Spring 2022	Lectures: “Information bias/Misclassification” “Study design: Cohort studies” EP813: Intermediate Epidemiology
2019, 2020	Lecture: “Exposure Variables” EP850: Applications of Intermediate Epidemiology
Massachusetts College of Pharmacy and Health Sciences, Boston, MA	
2023, 2024	Lecture: “Case-Control Study Design” Methods in Biostatistics and Epidemiology (PH 740)

MENTORING

Undergraduate students

2025	Alexis Jackson, B.S., candidate at Northeastern University. <i>Spring 2025</i>
2024 – 2025	Zoë Nelms, B.S., candidate at Northeastern University. <i>Fall 2024, Spring 2025</i>
2024 – 2025	Joseph Aeschliman, B.S., candidate at Northeastern University, Research Innovation Scholarship Entrepreneurship (RISE): <i>Analyzing Gender-Affirming Care Outcomes in LGBTQ+ Adults to Inform Massachusetts Health Policy</i> , Spring 2025.

PROFESSIONAL MEMBERSHIP AND SERVICE

2021 – 2022	Society for Birth Defects Research & Prevention, est. as the Teratology Society
2020 – 2021	International Society for Pharmacoepidemiology
2018 – Present	Society for Epidemiologic Research
2018 – Present	Society for Pediatric and Perinatal Epidemiologic Research

Service

2024 – 2025	Past President, Society for Epidemiologic Research’s Student Post-Doc Committee (SER-SPC)
2023 – 2024	President, Society for Epidemiologic Research’s Student Post-Doc Committee (SER-SPC)
2022 – 2023	President-Elect, Society for Epidemiologic Research’s Student Post-Doc Committee (SER-SPC)
2021 – 2022	Media Co-Chair, Society for Epidemiologic Research’s Student Post-Doc Committee (SER-SPC)
2019 – 2021	Co-Chair, Epidemiology Journal Club, Boston School of Public Health

Ad Hoc Journal Reviewer

BMC Public Health

American Journal of Epidemiology

Research in Health Services & Regions

Pharmacoepidemiology and Drug Safety

PLOS ONE

Paediatric and Perinatal Epidemiology

European Journal of Clinical Pharmacology

Conference Abstract/Awards Review & Judging

2024 – Present **Awards Reviewer**, Society for Epidemiologic Research

2020 – Present **Abstract Reviewer**, Society for Pediatric and Perinatal Epidemiologic Research

2020 – Present **Abstract Reviewer**, Society for Epidemiologic Research

2021 – 2024 **Poster Judge**, Society for Epidemiologic Research

2019 – 2023 **Abstract Reviewer**, Data Sharing Committee for the *National Birth Defects Prevention Study (NBDPS) / Birth Defects Study to Evaluate Pregnancy exposureS (BD-STEPS)*

BIBLIOGRAPHY

Peer-Reviewed Manuscripts

1. **Adrien, N.**, MacLehose, R.F., Werler, M.M., Yazdy, M.M., Fox, Matthew P., Parker, S.E., and the National Birth Defects Prevention Study. (2024). Assessing the impact of exposure misclassification in case-control studies of self-reported medication use. *Paediatric and Perinatal Epidemiology*:10.1111/ppe.13161. Advance online publication.
2. Fox, M.P., **Adrien, N.**, van Smeden, M., Suarez, E. (2024). Invited commentary: it's not all about residual confounding: a plea for quantitative bias analysis for epidemiologic researchers and educators. *American Journal of Epidemiology*, 193(11), 1609–1611.
3. Petersen, J.M., Kahrs, J.C., **Adrien, N.**, et al. (2023). Bias analyses to investigate the impact of differential participation: Application to a birth defects case-control study. *Paediatric and Perinatal Epidemiology*: 00:1-9.
4. **Adrien, N.***, Orta, O.R.*, Nestoridi, E., Carmichael, S.L., Yazdy, M.M., and the National Birth Defects Prevention Study. (2023). Early pregnancy vitamin D status and risk of select birth defects in the National Birth Defects Prevention Study. *Birth Defects Research* 115.3: 290-301.
* *These authors contributed equally to this work*
5. Doshi, R.H., Casey, R.M., **Adrien N.**, Ndiaye, A., Brennan, T., et al. (2022). Feasibility and acceptability of nationwide HPV vaccine introduction in Senegal: Findings from community-level cross-sectional surveys, 2020. *PLOS Global Public Health* 2.4: e0000130.
6. Casey, R. M., **Adrien, N.**, Badiane, O., Diallo, A., Roka, J. L., Brennan, T., Doshi, R. H., Garon, J., Loharikar, A. (2022). National Introduction of HPV vaccination in Senegal – Successes, Challenges, and Lessons Learned. *Vaccine* 40: A10-A16.

7. Fischer, C.B.* , **Adrien, N.***, Silguero, J.J, Hopper, J.J, Chowdhury, A.I., Werler, M.M. (2021). Mask adherence and rate of COVID-19 across the United States. *PLoS ONE* 16.4: e0249891.
* *These authors contributed equally to this work*
 8. Schragger, N.L., **Adrien, N.**, Werler, M.M., Parker, S.E., Van Bennekom, C., & Mitchell, A.A. (2021). Trends in first trimester nausea and vomiting of pregnancy and use of select treatments: Findings from the National Birth Defects Prevention Study. *Paediatric and Perinatal Epidemiology* 35.1: 57-64.
 9. **Adrien, N.**, Parker, S.E., Petersen, J.M., & Werler, M.M. (2020). Vasoactive Exposures and Risk of Amniotic Band Syndrome and Terminal Transverse Limb Deficiencies. *Birth Defects Research* 112.14: 1074-1084.
 10. **Adrien, N.**, Hyde, T.B., Gacic-Dobo, M., Hombach, J., Krishnaswamy, A., & Lambach, P. (2019). Differences between coverage of yellow fever vaccine and the first dose of measles-containing vaccine: A desk review of global data sources. *Vaccine* 37.32: 4511-4517.
 11. Sinyange, N., Brunkard, J.M., Kapata, N., Mazaba, L.M., Musonda, K.G., Hamoonga, R., Kapina, M., Kapaya, F., Mutale, L., Kateule, E., Namakula, F., Zulu, J., Musyani, C. L., Winstead, A.V...**Adrien, N...**Mukonka, V.M. (2018). Cholera Epidemic – Lusaka, Zambia, October 2017–May 2018. *Morbidity and Mortality Weekly Report* 67.19: 556.
 12. Hageman, J.C., Hazim, C., Wilson, K., Malpiedi, P., Gupta, N., Bennett, S., Kolwaite, A., Tumpey, A., Brinsley-Rainisch, K., Christensen, B., Gould, C., Fisher, A., Jhung, M., Hamilton, D... **Adrien N...**Park B. (2016). Infection Prevention and Control for Ebola in Health Care Settings — West Africa and United States. *MMWR Supplements*; 65(Suppl-3): 50–56.
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OTHER SKILLS

Native Fluency. French and Haitian-Creole

Intermediate proficiency. Spanish