

Nicholas Williams

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EDUCATION

M.P.H. Biostatistics, Columbia University, 2019
B.A. Psychology, University of Colorado at Boulder, 2017

PROFESSIONAL EXPERIENCE

2019-21 Weill Cornell Medical College
Research Biostatistician I, Division of Biostatistics
Department of Population Health Sciences
2018 Mailman School of Public Health
Research Assistant, Department of Biostatistics
Supervisor: Christine Mauro, Ph.D.

RESEARCH INTERESTS

Nonparametric causal inference.
Open source statistical software development.

PUBLICATIONS

Research in statistics

2020 Díaz, I., **Williams, N.**, Hoffman, K. and Schenck, E. "Non-parametric causal effects based on longitudinal modified treatment policies." In press at *Journal of the American Statistical Association - Theory and Methods*. *arXiv* preprint: 2006.01366v2.

Applied Health Sciences

2021 Winston, G., Guadix, S., Lavieri, M., Uribe-Cardenas, R., Kocharian, G., **Williams, N.**, Sholle, E., Grinspan, Z., and Hoffman, C. "Closed-Loop Vagal Nerve Stimulation for Intractable Epilepsy: A Single-Center Experience." *Seizure: European Journal of Epilepsy*. DOI: 10.1016/j.seizure.2021.03.030
2021 Goel, A.R., Bruce, H.A, **Williams, N.** and Alexiades, G. "Long-Term Effects of Hearing Aids on Hearing Ability in Patients with Sensorineural Hearing Loss." *Journal of the American Academy of Audiology*.

- 2020 Thiesmeyer, J.W., Ullmann, T.M., Greenberg, J., **Williams, N.T.**, Limberg, J., Stefanova, D., Beninato, T., Finnerty, B.M., Vignaud, T., Leclerc, J., Fahey III, T.J., Mirallie, E.M., Brunaud, L. and Zarnegar, R. "Hypertension resolution after adrenalectomy for primary hyperaldosteronism: Which is the best predictive model?" *Surgery*. DOI: 10.1016/j.surg.2020.04.017
- 2020 Riley, C.A., Zheng, Z., **Williams, N.**, Smith, T.L., Orlandi, R.R. and Tabaei, A. "Concordance of self-reported practice patterns of American Rhinologic Society members with the International Consensus Statement of Allergy and Rhinology: Rhinosinusitis" *International Forum of Allergy and Rhinology*. DOI: 10.1002/alr.22533
- 2020 Day, J., Conti, M.S., **Williams, N.**, Ellis, S.J., Deland, J.T. and Cody, E.A. "Contribution of First-Tarsometatarsal Joint Fusion to Deformity Correction in the Treatment of Adult-Acquired Flatfoot Deformity." *Foot and Ankle Orthopaedics*. DOI: 10.1177/2473011420927321
- 2020 Day, J., Kim, J., Conti, M.S., **Williams, N.**, Deland, J.T. and Ellis, S.J. "Outcomes of Idiopathic Flexible Flatfoot Deformity Reconstruction in the Young Patient." *Foot and Ankle Orthopaedics*. DOI: 10.1177/2473011420937985
- 2020 Cronin, S., Conti, M., **Williams, N.** and Ellis, S.J. "Relationship Between Demographic and Radiographic Characteristics and Second Ray Pathology in Hallux Valgus Patients." *Foot and Ankle Orthopaedics*. DOI: <https://doi.org/10.1177/2473011420909088>
- 2019 Hussain, I., Winston, G.M., Goldberg, J., Curri, C., **Williams, N.**, Chazen, J.L., Greenfield, J.P. and Baaj, A.A. "Impact of imaging modality, age, and gender on craniocervical junction angles in adults without structural pathology." *Journal of Craniovertebral Junction and Spine*. PMID: 32089618

Manuscripts under review

- 2021 **Williams, N.**, Rosenblum, M. and Díaz, I. "Optimizing Precision and Power by Machine Learning in Randomized Trials, with an Application to COVID-19." Under review at *Journal of the Royal Statistical Society: Series A*.
- 2021 Lum, M., Chazen, J.L., **Williams, N.** and Riew, D. "Incidence of Internal Jugular Vein Compression by C1 Transverse Process and Styloid Process in Unselected Patient on CT Angiography." Under review at *Spine*.

INVITED TALKS

- 2020 "An Introduction to Answering Causal Questions with the lmt R package." Weill Cornell Biostatistics Computing Club. New York, NY. July 14.

SOFTWARE

Maintainer

- lmt* R: Non-Parametric Causal Effects of Feasible Interventions Based on Modified Treatment Policies

cabinets R: Project Specific Workspace Organization Templates
simul R: Fast Simultaneous Confidence Bands Based on the Efficient Influence Function and Multiplier Bootstrap
catfun R: Categorical Data Analysis

Contributer

broom R: Convert Statistical Objects into Tidy Tibbles

CONFERENCE ACTIVITY

Conference Presentations

Presenting author *italicized*.

- 2021 *Brantner, C.*, Pearce-Fisher, D., Moezina, C., ..., **Williams, N.**, Demetres, M., and Goodman, S. "Treatment knowledge and preferences for Black people with hip and knee osteoarthritis: A Systematic Literature Review and Meta-Analysis." European Congress of Rheumatology.
- 2020 **Williams, N.**, Savenkov, O. and Chrea, B. "Estimating the Causal Effect of Surgical Treatment for Posterior Malleolus Fracture with Different Treatment Rules on Patient Reported Outcomes." Joint Statistical Meetings (Virtual), Philadelphia, PA.
- 2019 *Mauro, C.*, **Williams, N.** and An, A. "Experiences with Incorporating R into a Second-Level Biostatistics Course for MPH Students." Joint Statistical Meetings, Denver, CO.

GRANTS AND AWARDS

Awards and Honors

- 2017 Graduate with Distinction, University of Colorado at Boulder

Grants and Fellowships

- 2015 Virginia Summer Undergraduate Research Initiative. Project: "The relationship between cognitively oriented verbs and affect."

TEACHING EXPERIENCE

Weill Cornell Medicine

Data Science I
 (Teaching Assistant)

Columbia University

Categorical Data Analysis
 (Lead Teaching Assistant)

Research Methods, Quantitative Foundations
 (Teaching Assistant)

PROFESSIONAL AFFILIATIONS

2020– American Statistical Association

TECHNICAL SKILLS

R expert

SAS

SQL

\LaTeX

Julia intermediate

C++ novice

Ruby novice

Updated August 2021