

# Nicholas Williams

Division of Biostatistics  
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## EDUCATION

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

## PROFESSIONAL EXPERIENCE

2019– 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 methodology with application to health policy  
Open source statistical software implementation with a focus on usability

## PUBLICATIONS

### Research in Statistics

2020 Díaz, I., **Williams, N.**, Hoffman, K. and Schenck, E. “Non-parametric causal effects based on longitudinal modified treatment policies.” *arXiv* preprint: 2006.01366v2

### Applied Health Sciences

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
- 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 in Preparation

- 2020 **Williams, N.** and Díaz, I. "lmp: An R Package for Non-Parametric Causal Effects Based on Modified Treatment Policies." Target: *Journal of Statistical Software*, Fall 2020.
- 2020 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: A Retrospective Cohort Study." Target: *Journal of the American Academy of Audiology*, Fall 2020.
- 2020 Mehta, B., Brantner, C., **Williams, N.**, Szymonifka, J., Navarro-Millan, I.Y., Bass, A.R., Russell, L.A., Parks, M.L., Figgie, M.P., Nguyen, J.T., Ibrahim, S. and Goodman, S.M. "Primary Care Provider Density and Elective Total Joint Replacement Outcomes." Target: *Journal of Arthroplasty*, Fall 2020.

### Blog posts

- 2020 **Williams, N.** "An introduction to estimating the causal Effects of feasible interventions." *Towards Data Science*.

### INVITED TALKS

- 2020 "R Packages." Guest Lecture for Data Science I, Biostatistics and Data Science Program, Weill Cornell Medicine. New York, NY. October 14.
- 2020 "An Introduction to Answering Causal Questions with the lmp R package." Weill Cornell Biostatistics Computing Club. New York, NY. July 14.

### SOFTWARE

#### Maintainer

- lmp* R: Non-Parametric Causal Effects of Feasible Interventions Based on Modified Treatment Policies
- cabinets* R: Project Specific Workspace Organization Templates
- catfun* R: Categorical Data Analysis

## Contributer

*broom* R: Convert Statistical Objects into Tidy Tibbles

## CONFERENCE ACTIVITY

### Conference Presentations

Presenting author *italicized*.

- 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. 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

SAS

SQL

$\LaTeX$

C++ (novice)

Ruby (novice)

Updated September 2020