Yinxiang Wu

Department of Biostatistics
University of Washington
✉ wuyx@uw.edu

Education

2021–present	**PhD, Biostatistics**, *University of Washington*, Seattle, US.
2016–2017	**Master of Arts, Statistics**, *Columbia University*, New York City, US.
	Dual-degree undergraduate programme:
2014–2016	**Bachelor of Science with Honours, Statistics**, *University of Glasgow*, Glasgow, UK.
2012–2014	**Bachelor of Economics, Statistics**, *Zhongnan University of Economics and Law*, Wuhan, China.

Professional & Research Experience

Department of Biostatistics, University of Washington

July, 2022 – Present — Independent Study with Dr. Ting Ye.

- Developed a robust inverse-variance weighted estimator to estimate the causal effects of multiple, potentially correlated, exposures on a health outcome based on summary-level publicly genetic data. Performed theoretical analysis of the estimator and extensive simulations.

Oct, 2021 – Present — Research Assistant.

- Collaborated with researchers at KPWHRI to analyze the 24-hour activity cycle data using the compositional data analysis and latent profile analysis, and to explore the effects of time exchange between physical activity, sedentary behavior, and sleep, on cognitive function in a cohort of older adults

Division of Biostatistics, NYU Langone Health

Jan, 2021 – July, 2021 — Associate Research Scientist.

Feb, 2018 – Dec, 2020 — Assistant Research Scientist.

- Worked as a primary data analyst for CONTAIN (a nation-wide randomized clinical trial) and COMPILE (an international meta-analysis project) to investigate the efficacy of COVID-19 convalescent plasma on hospitalized patients, performed interim data analysis and prepared data reports for the Data and Safety Monitoring Board (DSMB) for the two studies, and conducted final data analyses for publications
- Collaborated with faculty and researchers at the NYU's Department of Environmental Medicine to analyze the association of exposure to environmental chemicals with the progression of chronic kidney disease in a cohort of children, and extended semi-parametric single index models for analyzing longitudinally measured environmental exposures
- Provided statistical consulting and data analysis support to faculty researchers and post-doctoral dental residents

Department of Child & Adolescents Psychiatry, NYU Langone Health

June, 2017 – Aug, 2017 — Volunteer Data Analyst.

- Processed high-dimensional data from a randomized clinical trial, including measures of brain cortical thickness on 214 Regions of Interest (RoI) in the brain, analyzed the data using the Smooth Manifold Functional PCA approach, and estimated an optimal treatment regime rule based on the imaging data

Publications

Journal Articles

* indicates equal contributions

2023 Anna Migliore Norweg, **Yinxiang Wu**, Andrea Troxel, Jonathan H Whiteson, Eileen Collins, Francois Haas, Anne Skamai, Roberta Goldring, Girardin Jean-Louis, Joan Reibman, et al. Mind–body intervention for dysfunctional breathing in chronic obstructive pulmonary disease: Feasibility study and lessons learned. *Journal of Integrative and Complementary Medicine*, 2023.

2023 Raghbir Kaur, Martin Lieberman, Margaret K Mason, Isaac P Dapkins, Rebecca Gallager, Kathleen Hopkins, **Yinxiang Wu**, Andrea B Troxel, Ayah Rashwan, Chelsea Hope, et al. A feasibility and acceptability study of screening the parents/guardians of pediatric dental patients for the social determinants of health. *Pilot and Feasibility Studies*, volume 9, pages 1–11. BioMed Central, 2023.

2022 Andrea B Troxel, Eva Petkova, Keith Goldfeld, Mengling Liu, Thaddeus Tarpey, **Yinxiang Wu**, Danni Wu, Anup Agarwal, Cristina Avendaño-Solá, Emma Bainbridge, et al. Association of convalescent plasma treatment with clinical status in patients hospitalized with covid-19: a meta-analysis. *JAMA network open*, volume 5, pages e2147331–e2147331. American Medical Association, 2022.

2022 Hyung Park, Thaddeus Tarpey, Mengling Liu, Keith Goldfeld, **Yinxiang Wu**, Danni Wu, Yi Li, Jinchun Zhang, Dipyaman Ganguly, Yogiraj Ray, et al. Development and validation of a treatment benefit index to identify hospitalized patients with covid-19 who may benefit from convalescent plasma. *JAMA network open*, volume 5, pages e2147375–e2147375. American Medical Association, 2022.

2022 Mila B Ortigoza, Hyunah Yoon, Keith S Goldfeld, Andrea B Troxel, Johanna P Daily, **Yinxiang Wu**, Yi Li, Danni Wu, Gia F Cobb, Gillian Baptiste, et al. Efficacy and safety of covid-19 convalescent plasma in hospitalized patients: a randomized clinical trial. *JAMA internal medicine*, volume 182, pages 115–126. American Medical Association, 2022.

2022 David Okuji, Olutayo Odusanwo, **Yinxiang Wu**, Susanna Yeh, and Sohini Dhar. Sucrose-stimulated salivary ph as an adjunct to caries risk assessment. *medRxiv*. Cold Spring Harbor Laboratory Press, 2022.

2022 David Okuji, Ashiana Jivraj, and **Yinxiang Wu**. From volume to value: Comparative value, quality, and cost between three treatment modalities for early childhood caries. *medRxiv*. Cold Spring Harbor Laboratory Press, 2022.

2022 Mary E Northridge, Kera F Weiserbs, Shabnam Seyedzadeh Sabounchi, Andrea Torroni, Nathalie S Mohadjeri-Franck, Steven Gargano, Eliot George, Tina C Littlejohn, Andrea B Troxel, **Yinxiang Wu**, et al. A feasibility and acceptability study of using an intra-oral camera and an asynchronous tele-mentoring protocol to detect and identify oral lesions. *Journal of Public Health Research*, volume 11, page 22799036221115778. SAGE Publications Sage UK: London, England, 2022.

2022 Raghbir Kaur, Martin Lieberman, Margaret K Mason, Isaac P Dapkins, Rebecca Gallager, Kathleen Hopkins, **Yinxiang Wu**, Andrea B Troxel, Ayah Rashwan, Chelsea Hope, et al. A feasibility and acceptability study of screening the parents/guardians of pediatric dental patients for the social determinants of health. 2022.

2022 Melanie Jacobson, **Yinxiang Wu**, Mengling Liu, Kurunthachalam Kannan, Sunmi Lee, Jing Ma, Bradley Warady, Susan Furth, Howard Trachtman, and Leonardo Trasande. Urinary polycyclic aromatic hydrocarbons in a longitudinal cohort of children with chronic kidney disease: A case of reverse causation? *Kidney360*. American Society of Nephrology, 2022.

2022 Anna D'Emilio, Shabnam Seyedzadeh Sabounchi, **Yinxiang Wu**, Amy Kim, Etienne Franck, Daniel Kane, and Martin Lieberman. Covid-19 vaccine hesitancy and refusal in post-graduate residents in dentistry. *Journal of Dental Education*, 2022.

2022 Anna D'Emilio, Shabnam Seyedzadeh Sabounchi, **Yinxiang Wu**, Amy Kim, Etienne Franck, Daniel Kane, and Martin Lieberman. Comparison of clinical competency self-assessments among advanced education in general dentistry (aegd) residents before and during covid-19 pandemic. *Journal of Dental Education*, 2022.

2022 Farbod Darvishian, **Yinxiang Wu**, Ugur Ozerdem, Jennifer Chun, Sylvia Adams, Amber Guth, Deborah Axelrod, Richard Shapiro, Andrea B Troxel, Freya Schnabel, et al. Macrophage density is an adverse prognosticator for ipsilateral recurrence in ductal carcinoma in situ. *The Breast*, volume 64, pages 35–40. Churchill Livingstone, 2022.

2022 Wai-Yin Chan, Crystal Hanano, **Yinxiang Wu**, and Donna Kritz-Silverstein. Human papillomavirus knowledge and recommendation practices among conference attendees. *Pediatric Dentistry*, volume 44, pages 181–185. American Academy of Pediatric Dentistry, 2022.

2022 Lorel E Burns, Kelly Terlizzi, Claudia Solis-Roman, **Yinxiang Wu**, Asgeir Sigurdsson, and Heather T Gold. Epidemiological evaluation of the outcomes of initial root canal therapy in permanent teeth of a publicly insured paediatric population. *International Journal of Paediatric Dentistry*, 2022.

2022 Lorel E Burns, Jimin Kim, **Yinxiang Wu**, Rakan Alzwaideh, Richard McGowan, and Asgeir Sigurdsson. Outcomes of primary root canal therapy: An updated systematic review of longitudinal clinical studies published between 2003 and 2020. *International Endodontic Journal*. Wiley Online Library, 2022.

2021 Anna Migliore Norweg, Anne Skamai, Simona C Kwon, Jonathan Whiteson, Kyle MacDonald, Francois Haas, Eileen G Collins, Roberta M Goldring, Joan Reibman, **Yinxiang Wu**, et al. Acceptability of capnography-assisted respiratory therapy: a new mind–body intervention for copd. *ERJ Open Research*, volume 7. European Respiratory Society, 2021.

2021 Mary E Northridge, **Yinxiang Wu**, Andrea B Troxel, Deborah Min, Rong Liu, Li Juan Liang, Sara S Metcalf, Shabnam Seyedzadeh Sabounchi, and Stella Yi. Acceptability of a community health worker intervention to improve the oral health of older chinese americans: A pilot study. *Gerodontology*, volume 38, pages 117–122, 2021.

2021 Katharine Lawrence, Danissa V Rodriguez, Dawn M Feldthouse, Donna Shelley, L Yu Jonathan, Hayley M Belli, Javier Gonzalez, Sumaiya Tasneem, Jerlisa Fontaine, Lisa L Groom, et al. Effectiveness of an integrated engagement support system to facilitate patient use of digital diabetes prevention programs: Protocol for a randomized controlled trial. *JMIR Research Protocols*, volume 10, page e26750. JMIR Publications Inc., Toronto, Canada, 2021.

2021 Melanie H Jacobson, **Yinxiang Wu**, Mengling Liu, Kurunthachalam Kannan, Adela Jing Li, Morgan Robinson, Bradley A Warady, Susan Furth, Howard Trachtman, and Leonardo Trasande. Organophosphate pesticides and progression of chronic kidney disease among children: A prospective cohort study. *Environment international*, volume 155, page 106597. Pergamon, 2021.

2021 Keith S Goldfeld, Danni Wu, Thaddeus Tarpey, Mengling Liu, **Yinxiang Wu**, Andrea B Troxel, and Eva Petkova. Prospective individual patient data meta-analysis: Evaluating convalescent plasma for covid-19. *Statistics in Medicine*, volume 40, pages 5131–5151, 2021.

2020 Yuyan Wang, **Yinxiang Wu**, Melanie H Jacobson, Myeonggyun Lee, Peng Jin, Leonardo Trasande, and Mengling Liu. A family of partial-linear single-index models for analyzing complex environmental exposures with continuous, categorical, time-to-event, and longitudinal health outcomes. *Environmental Health*, volume 19, pages 1–16. BioMed Central, 2020.

2020 Joan Reibman, Caralee Caplan-Shaw, **Yinxiang Wu**, Mengling Liu, Milan R Amin, Kenneth I Berger, Maria L Cotrina-Vidal, Angeliki Kazeros, Nedim Durmus, Maria-Elena Fernandez-Beros, et al. Characterization of persistent uncontrolled asthma symptoms in community members exposed to world trade center dust and fumes. *International journal of environmental research and public health*, volume 17, page 6645. MDPI, 2020.

2020 David Okuji, Donna Kritz-Silverstein, Hoa Pham, Emily Chen, **Yinxiang Wu**, and Wai-Yin Chan. Opportunities for age-specific interprofessional collaboration between physicians and dentists in pediatric patients. *Pediatric Dentistry*, volume 42, pages 203–207. American Academy of Pediatric Dentistry, 2020.

2020 David Okuji, Elodi Healy, and **Yinxiang Wu**. Opportunity for interprofessional collaboration: Screening for pediatric sleep-disordered breathing by dentists. *Pediatric Dentistry*, volume 42, pages 436–440. American Academy of Pediatric Dentistry, 2020.

2020 Mary E Northridge, Tina Littlejohn, Nathalie Mohadjeri-Franck, Steven Gargano, Andrea B Troxel, **Yinxiang Wu**, Robert B Bowe, and Paul A Testa. Feasibility and acceptability of an oral pathology asynchronous tele-mentoring intervention: A protocol. *Journal of Public Health Research*, volume 9, pages jphr–2020. SAGE Publications Sage UK: London, England, 2020.

2020 Melanie H Jacobson[*], **Yinxiang Wu**[*], Mengling Liu, Teresa M Attina, Mrudula Naidu, Rajendiran Karthikraj, Kurunthachalam Kannan, Bradley A Warady, Susan Furth, Suzanne Vento, et al. Serially assessed bisphenol a and phthalate exposure and association with kidney function in children with chronic kidney disease in the us and canada: A longitudinal cohort study. *PLoS medicine*, volume 17, page e1003384. Public Library of Science San Francisco, CA USA, 2020.

2020 Melanie H Jacobson, Mengling Liu, **Yinxiang Wu**, Susan Furth, Bradley Warady, Howard Trachtman, and Leonardo Trasande. Oxidant stress and renal function among children with chronic kidney disease: a repeated measures study. *Scientific reports*, volume 10, pages 1–10. Nature Publishing Group, 2020.

2019 Ewa Rakowski, Sibo Zhao, Mengling Liu, Shilpi Ahuja, Nedim Durmus, Gabriele Grunig, Maria Curotto de Lafaille, **Yinxiang Wu**, and Joan Reibman. Variability of blood eosinophils in patients in a clinic for severe asthma. *Clinical & Experimental Allergy*, volume 49, pages 163–170, 2019.

2019 Anjali Kumar, Dana Cernigliaro, Mary E Northridge, **Yinxiang Wu**, Andrea B Troxel, Joana Cunha-Cruz, Jay Balzer, and David M Okuji. A survey of caregiver acculturation and acceptance of silver diamine fluoride treatment for childhood caries. *BMC oral health*, volume 19, pages 1–12. BioMed Central, 2019.

2019 Dana Cernigliaro, Anjali Kumar, Mary E Northridge, **Yinxiang Wu**, Andrea B Troxel, Joana Cunha-Cruz, Jay Balzer, and David M Okuji. Caregiver satisfaction with interim silver diamine fluoride applications for their children with caries prior to operating room treatment or sedation. *Journal of public health dentistry*, volume 79, pages 286–291. John Wiley & Sons, Inc. Hoboken, USA, 2019.

Submitted, Under Review, or Accepted

2023 **Yinxiang Wu**, Dori E. Rosenberg, Mikael Anne Greenwood-Hickman, Susan M. McCurry, Cecile Proust-Lima, Jennifer C. Nelson, Paul K. Crane, Andrea Z. LaCroix, Eric B. Larson, and Pamela A. Shaw. Analysis of the 24-Hour Activity Cycle: An illustration examining the association with cognitive function in the Adult Changes in Thought (ACT) Study. Available at arXiv:2301.08280, 2023. (accepted by Frontiers in Psychology, section Quantitative Psychology and Measurement)

Referee Service

2023 Journal of Causal Inference
2022 Biometrics, International Journal of Biostatistics

Conferences and Symposiums

June, 2018 **7th Annual Thomas R. Ten Have Symposium on Statistics in Mental Health**, *Chicago*.

Poster presentation "Developing an optimal treatment decision rule for the treatment of PTSD for women with childhood abuse trauma: choice between two psychotherapies"

Academic Achievements

2015 **SAS Prize in Statistics**, *University of Glasgow*, Glasgow, UK.

Awarded annually for best student performance in Statistics Level 3

Teaching Assistantship

Autumn, 2022 : **BIOST536: Categorical Data Analysis**, University of Washington.
Fall, 2017 : **GR5205: Linear Regression Models**, Columbia University.
Spring, 2017 : **GR5204: Statistical Inference**, Columbia University.

Computer skills

Programming Languages R (proficient), Python (intermediate)
Database SQL, MySQL