

CONTACT	<p>Email: <a href="mailto:larryhan@g.harvard.edu">larryhan@g.harvard.edu</a>  Website: <a href="https://larrylehan.github.io">larrylehan.github.io</a>  Cell: (919) 272-1491</p>
RESEARCH INTERESTS	<p>Methodological: Causal inference; Federated learning; High-dimensional statistics; Natural language processing; Semi-supervised learning; Sensitivity analysis; Surrogate markers; Transfer learning</p> <p>Applications: Clinical trials; Crowdsourcing; EHR; Global health; Healthcare operations; Health policy and management; Infectious diseases; Rapid testing; Social innovation; Quality measurement</p>
ACADEMIC APPOINTMENTS	<p><b>Assistant Professor</b>, <i>Department of Health Sciences, Northeastern University</i>, 2023-Present</p> <p><b>Postdoctoral Fellow</b>, <i>Harvard Medical School, Health Care Policy</i>, May-Aug 2023  Advisor: Sharon-Lise Normand</p>
EDUCATION	<p><b>Ph.D. in Biostatistics</b>, <i>Harvard University</i>, May 2023  Advisors: Tianxi Cai, Lorenzo Trippa  Committee: Rui Duan, Sebastian Schneeweiss</p> <p><b>A.M. in Biostatistics</b>, <i>Harvard University</i>, 2020</p> <p><b>M.Phil. in Strategy, Marketing and Operations</b>, <i>University of Cambridge</i>, 2018  <i>Distinction</i>  Advisor: Stefan Scholtes</p> <p><b>M.A. in Global Affairs</b>, <i>Tsinghua University</i>, 2017  <i>Outstanding Master's Thesis Award</i>  Advisor: Michael Powers</p> <p><b>B.S. in Public Health, Biostatistics</b>, <i>University of North Carolina at Chapel Hill</i>, 2016  <i>Highest Honors, Highest Distinction</i>  Advisors: Michael Hudgens, Joseph Tucker</p>
HONORS & AWARDS	<p>2023 ASA Student Paper Award, Health Policy Statistics Section  ICHPS Student Paper Travel Award</p> <p>2022 WNAR Best Oral Student Paper Presentation Award  ASA Biopharmaceutical Section Scholarship Award  ASA Young Investigator Award, Section on Statistics in Epidemiology  ACIC New Researcher Award  IMS Hannan Graduate Student Travel Award  Rose Fellowship, Assistance Publique-Hopitaux de Paris</p> <p>2021 John Van Ryzin Award, Top ENAR Distinguished Student Paper Award  ASA Biopharmaceutical Regulatory-Industry Statistics Workshop Student Poster Award  NESS Student Poster Award</p> <p>2019 25 Under 25 Leaders in US-China Relations, China Hands</p> <p>2017 Gates Cambridge Scholarship</p> <p>2016 Schwarzman Scholarship  Phillips Ambassadors 10-Year Anniversary Award  Order of the Golden Fleece  Delta Omega Award of Excellence</p> <p>2015 Goldwater Scholarship</p>

2014 Phillips Ambassadorship  
 2012 Morehead-Cain Scholarship  
 National Merit Scholarship

## FUNDING

**NIH, NHLBI R01HL162893-01**, May 2023–Present  
 Co-Investigator (PI: Sharon-Lise Normand & Sara Pasquali), Modern Analytics to Improve Quality & Outcome Assessments Following Congenital Heart Surgery

**WHO/TDR** Social Innovation in Health Research Grant, 2019–2022  
 Co-Principal Investigator, \$190,000 USD annually

**NIH T32** COMET Training Grant, 2020–Present  
 Coordinator: Jeffrey Katz, Distinguished Chair in Orthopaedic Surgery, HMS

**NIH T32** Big Data to Knowledge Training Grant, 2018–2020  
 Coordinator: John Quackenbush, Department Chair, Harvard Biostatistics

## EXPERIENCE

**Aegis Ventures, Consultant**, 2021–Present

- Developing machine learning models and validation for the analysis of electronic health records in a joint venture with Northwell Health

**VA Boston Healthcare System, WOC**, 2021–Present

- Developing semi-supervised methods for the design of pragmatic trials of the Heart Failure Program at VA (supervised by Jacob Joseph)

**Health Care Policy at Harvard Medical School, Research Associate**, 2021–Present

- Designing robust methods for the estimation of causal effects in distributed data settings with applications for quality measurement (supervised by Jose Zubizarreta)

**Social Entrepreneurship to Spur Health, Co-Founder**, 2015–Present

- Founded a healthcare start-up focused on public health interventions using crowdsourcing
- Co-led a randomized controlled trial evaluating a video intervention among high-risk populations in China. [[details: clinicaltrials.gov](#)].

**Brigham and Women's Hospital, Statistical Consultant**, 2019–2021

- Lead statistician on multiple cardiovascular genetics projects leveraging the international SHaRE Data Registry for hypertrophic cardiomyopathy (supervised by Carolyn Ho)

**Bridgewater Associates, Intern**, 2018

- Evaluated investment processes for Pure Alpha portfolio construction
- Developed strategies for creating a sustainable talent recruitment pipeline

## WORKING PAPERS

- [6] **Han, L.** and Levis, A. “Federated Conformal Inference under Covariate Shift.” *In preparation.*
- [5] **Han, L.**; Tang, W.; Tian, L.; Cai, T. “Multi-Institution Federated Learning of Differential COVID-19 Vaccine Efficacy.” *In preparation.*
- [4] **Han, L.**; Zhang, Y.; Duan, R. “Heterogeneous Causal Effect Estimation in Underrepresented Populations: Federated and Transfer Learning Approaches.” *In preparation.*
- [3] **Han, L.**; Hou, J.; Cai, T. “Semi-supervised Doubly Robust Estimation for Pragmatic Trial Design.” *In preparation.*
- [2] **Han, L.** and Cai, T. “Cross-Institutional EHR Data Harmonization using NLP: Prediction of Long-COVID Outcomes in French and US Hospitals.” *In preparation.*
- [1] Liu, M.; **Han, L.**; Xiong, X.; Cai, T.; Tian, L. “Federated Survival Analysis with High Dimensional and Heterogeneous Data.” *In preparation.*

## PREPRINTS

- [5] **Han, L.**; Zhu, S.; Zubizarreta, J. “Multiply Robust Federated Estimation of Targeted Average Treatment Effects.” (Under review).
- [4] Han, S. and **Han, L.** “Principal Resampling for Causal Inference.” (Under review).
- [3] Guo, Z.; Li, X.; **Han, L.**; Cai, T. “Robust Inference for Federated Meta-Learning.” *Arxiv*, 2023 Jan. (Under review). [\[Paper\]](#).
- [2] **Han, L.**; Li, Y.; Niknam, B.; Zubizarreta, J. “Privacy-Preserving and Communication-Efficient Causal Inference for Hospital Quality Measurement.” *Arxiv*, 2022 Mar. (Under review). [\[Paper\]](#).
  - 2023 ASA Student Paper Award, Health Policy Statistics Section
  - 2022 WNAR Best Oral Student Paper Presentation Award
- [1] **Han, L.**; Duan, R.; Cai, T. “Federated Adaptive Causal Estimation (FACE) of Target Treatment Effects.” *Arxiv*, 2021 Dec. (Invited revision at *Journal of the American Statistical Association Theory & Methods*). [\[Paper\]](#).
  - 2022 ASA Young Investigator Award, Section on Statistics in Epidemiology, JSM

## PUBLICATIONS

## 2023

- **Han, L.**; Arfe, A.; Trippa, L. “Sensitivity Analyses of Clinical Trial Designs: Selecting Scenarios and Summarizing Operating Characteristics.” *The American Statistician*, 2023 May. [\[Paper\]](#).
  - 2021 NESS Student Poster Award

## 2022

- **Han, L.**; Wang, X.; Cai, T. “Identifying Surrogate Markers in Real-World Comparative Effectiveness Research.” *Statistics in Medicine*, 2022 Aug. [\[Paper\]](#).
  - 2021 John Van Ryzin Award (top paper among ENAR Distinguished Student Papers)
- Day, S.; Hlatshwako, T.G.; Lloyd, A.; **Han, L.**; Tang, W.; Bayus, B.; Tucker, J.D. “Evaluating and Volunteering for Crowdsourced Interventions: Cross-Sectional Data on COVID-19 Safety from a University Survey.” *PLOS One*, 2022 Sep. [\[Paper\]](#).
- Weber, G.; Hong, C.; Xia, Z.; ... 4CE (**Han, L.**); Kohane, I.; Cai, T.; Brat, G. “International Comparisons of Laboratory Values from the 4CE Collaborative to Predict COVID-19 Mortality.” *NPJ Digital Medicine*, 2022 Jun 13; 5(74). [\[Paper\]](#).
- Wang, X.; Parast, L.; **Han, L.**; Tian, L.; Cai, T. “Robust Approach to Combining Multiple Markers to Improve Surrogacy.” *Biometrics*, 2022 Apr 15. [\[Paper\]](#).

## 2021

- **Han, L.**; Tang, W.; Tiarney, R.; et al. “Joint International Consensus Statement on Crowdsourcing Challenge Contests in Health and Medicine: Results of a Modified Delphi Process.” *BMJ Open*. 2021 Nov; 11(11):e048699. [\[Paper\]](#).
- Nauffal, V.; Marstrand, P.; **Han, L.**; et al. “Worldwide Differences in Primary Prevention Implantable Cardioverter Defibrillator Utilization and Outcomes in Hypertrophic Cardiomyopathy.” *European Heart Journal*, 2021 Sep, 42(38), 3932-3944. [\[Paper\]](#).
- Day, S.; Li, C.; Hlatshwako, T.; Abu-Hijleh, F.; **Han, L.**; Deitelzweig, C.; Bayus, B.; Ramaswamy, R.; Tang, W.; Tucker J. “Assessment of a Crowdsourcing Open Call for Approaches to University Community Engagement and Strategic Planning During COVID-19.” *JAMA Network Open*, 2021 May; 4(5):e2110090. [\[Paper\]](#).

## 2020

- Wang, C.\*; **Han, L.\***; Stein, G.; et al. “Crowdsourcing in Health and Medical Research: A Systematic Review.” *Infectious Diseases of Poverty*. 2020 Jan; 9(1):8. [\[Paper\]](#).  
\*Co-first authors
- Sidhu, K.; **Han, L.**; Picard, K.; et al. “Ventricular Tachycardia in Cardiomyopathy: Characteristics and Considerations for Device Programming.” *Heart Rhythm*. 2020 Oct 1; 17(10):1704-1710. [\[Paper\]](#).
- Marston, N.; **Han, L.**; Olivotto, I.; et al. “Clinical Characteristics and Cardiovascular Outcomes in Childhood-Onset Hypertrophic Cardiomyopathy Compared with Adult-Onset Disease.” *European Heart Journal*. 2020 May, 42(20), 1988-1996. [\[Paper\]](#).
- Marstrand, P.; **Han, L.**; Day, S.; et al. “Hypertrophic Cardiomyopathy with Left Ventricular Systolic Dysfunction: Insights from the SHaRe Registry.” *Circulation*. 2020 Apr 28; 141(17):1371-1383. [\[Paper\]](#).
- McCoy, T.; **Han, L.**; Pellegrini, A.; et al. “Stratifying Risk for Dementia Onset Using Large-Scale Electronic Health Record Data: A Retrospective Cohort Study.” *Alzheimer’s & Dementia: The Journal of the Alzheimer’s Association*. 2020 Jan 16 (Featured Article). [\[Paper\]](#).
- Lakdawala, N.; Olivotto, I.; Day, S.; **Han, L.**; et al. “Associations Between Female Sex, Sarcomere Variants and Clinical Outcomes in Hypertrophic Cardiomyopathy.” *Circulation: Genomic and Precision Medicine*. 2020 Dec. 14(1), e003062. [\[Paper\]](#).
- Halpaap, B.; Tucker, J.; Mathanga, D.; Juban, N.; Awor, P.; Saravia, N.; **Han, L.**; et al. “Social Innovation in Global Health: Sparking Location Action.” *Lancet Global Health*. 2020 May; 8(5):e633-634. [\[Paper\]](#).

## 2019

- **Han, L.**; Fine, J.; Robinson, S.; Boyle, A.; Freeman, M.; Scholtes, S. “Is Seniority of Emergency Physician Associated with the Weekend Effect?” *Emergency Medicine Journal*. 2019 Dec;36(12):708-715. [\[Paper\]](#).  
– [\[Invited commentary\]](#) from the President of the Royal College of Emergency Medicine
- Eberly, L.; Day, S.; Ashley, E.; Jacoby D.; Jefferies, J.; Colan, S.; Rossano, J.; Semsarian, C.; Pereira, A.; Olivotto, I.; Ingles, J.; Seidman, C.; Channaoui, N.; Cirino, A.; **Han, L.**; Ho, C.; Lakdawala, N. “Association of Race with Disease Expression and Clinical Outcomes Among Patients with Hypertrophic Cardiomyopathy.” *JAMA Cardiology*. 2019 Dec; 5(1), 83-91. [\[Paper\]](#).
- Liu, F.; Qin, Y.; Meng, S.; Zhang, W.; Tang, W.; **Han, L.**; et al. “HIV Self-Testing among MSM in China: A Qualitative Implementation Research Study.” *Journal of Virus Eradication*. 2019 Nov 4;5(4):220-224. [\[Paper\]](#).
- Li, K.; Tang, W.; Wu, D.; Huang, W.; Feng, W.; Lee, A.; Feng, H.; Pan, S.; **Han, L.**; Mak, V.; Yang, L.; Tucker, J. “Pay-it-forward Dual Gonorrhea/Chlamydia Test Uptake among MSM in China: A Pragmatic, Quasi-Experimental Study.” *The Lancet Infectious Diseases*. 2019 Jan;19(1):76-82. [\[Paper\]](#).

## 2018

- **Han, L.**; Chen, A.; Wei, S.; et al. “Crowdsourcing in Health & Health Research: A Practical Guide.” *World Health Organization*. 2018 July. License: CC BY-NC-SA 3.0 IGO. [\[Paper\]](#).
- Qin, Y.\*; **Han, L.\***; Babbitt, A.; et al. “Experiences Using and Organizing HIV Self-Testing.” *Journal of the International AIDS Society*. 2018 Jan 28;32(3):371-381. [\[Paper\]](#).  
\*Co-first authors

## 2017

- **Han, L.**; Hudgens, M.; Emch, M.; et al. “RTS,S/AS01 Malaria Vaccine Efficacy is Not Modified by Seasonal Precipitation: Results from a Phase 3 Randomized Controlled Trial in Lilongwe, Malawi.” *Scientific Reports*. 2017 Aug 3;7(1):7200. [\[Paper\]](#).
- Zhang, T.\*; Liu, C.\*; **Han, L.\*** et al. “Community Engagement in Sexual Health and Uptake of HIV Testing and Syphilis Testing Among MSM in China: a Cross-sectional Online Survey.” *Journal of the International AIDS Society*. 2017 Apr 3;20(1):21372. [\[Paper\]](#).  
\*Co-first authors
- SESH Study Group (**Han, L.**); Tucker, J. “Crowdsourcing to Promote HIV Testing Among MSM in China: Study Protocol for a Stepped Wedge Randomized Controlled Trial.” *Trials*. 2017 Oct 2;18(1):447. [\[Paper\]](#).
- Wong, N.; Tang, W.; **Han, L.** et al. “MSM HIV Testing Following an Online Testing Intervention in China.” *BMC Infectious Diseases*. 2017 June 19;17(1):437. [\[Paper\]](#).
- Tang, W.; Mao, J.; Tang, S.; Liu, C.; Mollan, K.; Cao, B.; Wong, T.; Zhang, Y.; Hudgens, M.; Qin, Y.; **Han, L.**; et al. “Disclosure of Sexual Orientation to Health Professionals in China: Results from an Online Cross-Sectional Study.” *Journal of the International AIDS Society*. 2017 Feb 6;20(1):21416. [\[Paper\]](#).
- Hu, J.; Gu, X.; Tao, X.; Qian, Y.; Babu, G.; Wang, G.; Liao, M.; **Han, L.**; Kang, D.; Tang, W. “Prevalence and Trends of HIV, Syphilis, and HCV in Migrant and Resident MSM in Shandong, China: Results from a Serial Cross-Sectional Study.” *PLoS One*. 2017 Jan 19;12(1):e0170443. [\[Paper\]](#).

## 2016

- **Han, L.**; Wei, C.; Muessig, K.; et al. “HIV Test Uptake Among MSM in China: Implications for Enhanced HIV Test Promotion Campaigns Among Key Populations.” *Global Public Health*. 2016 Jan:1-14. [\[Paper\]](#).
- Tang, W\*.; **Han, L.\***; Best, J\*.; et al. “Crowdsourcing HIV Test Promotion Videos: A Non-inferiority Randomized Controlled Trial in China.” *Clinical Infectious Diseases*. 2016 Jun 1;62(11):1436-42. [\[Paper\]](#).  
\*Co-first authors

## 2015

- Bien, C.; Best, J.; Muessig, K.; Wei, C.; **Han, L.**; Tucker, J. “Gay Apps for Seeking Sex Partners in China: Implications for MSM Sexual Health.” *AIDS and Behavior*. 2015 June;19(6):941-6. [\[Paper\]](#).
- Best, J.; Tang, W.; Zhang, Y.; **Han, L.**; et al. “Sexual Behaviors and HIV/Syphilis Testing Among Transgender Individuals in China: Implications for Expanding HIV Testing Services.” *Sexually Transmitted Diseases*. 2015 May;42(5):281-5. [\[Paper\]](#).

## 2014

- **Han, L.**; Bien, C.; Wei, C.; et al. “HIV Self-Testing Among Online MSM in China: Implications for Expanding HIV Testing Among Key Populations.” *Journal of Acquired Immune Deficiency Syndromes*. 2014 Oct 1;67(2):216-21. [\[Paper\]](#).
- Tucker, J.; Muessig K.; Cui, R.; Bien, C.; Lo, E.; Lee, R.; Wang, K.; **Han, L.**; et al. “Organizational Characteristics of HIV/Syphilis Testing Services for MSM in South China: a Social Entrepreneurship Analysis and Implications for Creating Sustainable Service Models.” *BMC Infectious Diseases*. 2014 Nov 25;14:601. [\[Paper\]](#).

- Wei, C.; Muessig, K.; Bien, C.; Yang, L.; Meng, R.; **Han, L.**; Yang, M.; Tucker, J. “Strategies for Promoting HIV Testing Uptake: Willingness to Receive Couple-Based and Collecting HIV Testing Among a Cross-Sectional Online Sample of MSM in China.” *Sexually Transmitted Infections*. 2014 Sep;90(6):469-74. [Paper].

## TALKS & CONFERENCES

### 2023

- *INFORMS, Phoenix, AZ.* (Community-Committee’s Choice Session, Oct 2023). “Federated Transfer Learning to Estimate the Quality of Congenital Heart Centers.”
- *JSM, Toronto, Canada.* (Invited Speaker, Aug 2023). “Federated Transfer Learning for Heterogeneous Causal Effects in Underrepresented Populations.”
- *JSM, Toronto, Canada.* (Invited Speaker, Aug 2023). “Privacy-Preserving and Communication-Efficient Hospital Quality Measurement.” **ASA Student Paper Award, Health Policy Statistics Section.**
- *Medinfo, Sydney, Australia.* (Co-author, Jul 2023). “TAXN: Translate Align Extract Normalize, a multilingual extraction tool for clinical texts.”
- *International Conference on Health Policy Statistics, Scottsdale, AZ.* (Organizer and Invited Speaker, Jan 2023). “Privacy-Preserving and Communication-Efficient Hospital Quality Measurement.”
- *Job Talks:* University of Michigan – Ann Arbor (Biostatistics), University of Washington (Biostatistics), University of Pennsylvania (Biostatistics, Epidemiology, and Informatics), Harvard Medical School (Pharmacoepidemiology), University of California – Berkeley / University of California – San Francisco (Computational Precision Health), Vanderbilt University (Biostatistics), North Carolina State University (Statistics), University of Utah (Biostatistics), University of Virginia (Data Science), Boston University (Biostatistics), Northeastern University (Health Sciences)

### 2022

- *15th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, U.K.* (Invited Speaker, Dec 2022). “Heterogeneous Causal Effect Estimation: Federated and Transfer Learning Approaches.”
- *University of Cambridge Judge Business School Healthcare Operations Seminar Series, Online.* (Invited Speaker, Nov 2022). “Data-adaptive Heterogeneous Causal Effect Estimation via Trees.”
- *University of Paris Bioinformatics Seminar Series, Paris, France.* (Invited Speaker, Nov 2022). “Cross-Institutional EHR Data Harmonization using NLP.”
- *Banff Workshop, Oaxaca, Mexico.* (Invited Speaker, Aug 2022). “Extensions to Real-World Data and Multiple Surrogate Markers.”
- *JSM, Washington, D.C.* (Oral, Aug 2022). “Federated Adaptive Causal Estimation (FACE) of Target Treatment Effects.” **ASA Young Investigator Award, Section on Statistics in Epidemiology.**
- *IBC, Riga, Latvia.* (Invited Speaker, Jul 2022). “Identification and Evaluation of Surrogate Markers.”
- *WNAR, Virtual.* (Oral, Jun 2022). “Privacy-Preserving and Communication-Efficient Causal Inference for Hospital Quality Measurement.” **Best Oral Student Paper Presentation Award.**
- *Harvard Medical School Design of Experimental and Observational Studies Seminar Series, Boston, MA.* (Oral, Jun 2022). “Privacy-Preserving and Communication-Efficient Causal Inference for Hospital Quality Measurement.”

- *American Causal Inference Conference, Berkeley, CA.* (Oral, May 2022). “Privacy-Preserving and Communication-Efficient Causal Inference for Hospital Quality Measurement.” **NSF New Researcher Award.**
- *ENAR, Houston, TX.* (Oral, Mar 2022). “Distributed Causal Inference.” **IMS Hannan Graduate Student Travel Award.**

## 2021

- *New England Statistics Symposium, Virtual.* (Invited Speaker, Oct 2021). “Identifying Real-World Surrogate Markers for Replicating Clinical Trials.”
- *New England Statistics Symposium, Virtual.* (Poster, Oct 2021). “Optimal Sensitivity Analysis for Clinical Trial Design.” **Munich Re / HSB Best Poster Award.**
- *Johns Hopkins Causal Inference Working Group, Virtual.* (Invited Speaker, Sep 2021). “Distributed Causal Inference.”
- *ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Virtual* (Poster, Sep 2021). “On the Evaluation of Surrogate Markers in Real World Data Settings.” **Best Poster Award.**
- *ENAR, Virtual* (Oral, Mar 2021). “On the Evaluation of Surrogate Markers in Real World Data Settings.” **John Van Ryzin Award and ENAR Distinguished Student Paper Award.**
- *Harvard Chan Poster Day, Virtual* (Oral, Feb 2021). “On the Evaluation of Surrogate Markers in Real World Data Settings.” **Best Student Poster Award.**
- *Harvard-MIT Center for Regulatory Science Doctoral Student Symposium, Virtual* (Oral, Feb 2021). “Distributed Causal Learning.”

## 2020

- *University of Michigan Statistics for Individualized Healthcare Lab, Virtual.* (Invited Speaker, Dec 2020). “Distributed Learning for Causal Modelling.”

## 2019

- *American Society of Tropical Medicine & Hygiene 68th Annual Meeting, National Harbor, Maryland.* (Invited Symposium Panelist, Nov 2019). “Social Innovation for Infectious Diseases of Poverty: Sparking Local Innovation.”
- *INFORMS Healthcare: Transforming Health with Data, Mind, and Body, Cambridge, MA.* (Invited Panelist, July 2019). “Is Seniority of Emergency Physician Associated with the Weekend Mortality Effect?”

## 2018

- *Biobanks: Study Design and Data Analysis, Harvard Medical School, Boston, MA.* (Poster, Nov 2018). “Excess Mortality Associated with Junior Doctor Treatment at the Weekend: An Analysis of Electronic Medical Records in the UK.”
- *World Health Organization Social Innovation in Health Initiative, Blantyre, Malawi.* (Oral, June 2018). “Co-Creating a Research Culture and Guide for Social Innovation.”
- *London School of Hygiene & Tropical Medicine Centre for Evaluation Seminar Series, London, UK.* (Oral, May 2018). “Crowdsourcing in Health and Medicine: Developing a Practical Guide and Systematic Review.”



- *University of Cambridge Judge Business School Healthcare Operations Seminar Series, Cambridge, UK.* (Oral, March 2018). “Surviving the Weekend Effect: a Competing Risks Analysis of Excess Weekend Mortality at Addenbrooke’s Hospital.”

## 2017

- *Tsinghua University Schwarzman Scholars Symposium, Beijing, China.* (Oral, June 2017). “Human Survival.” **First Prize.**

## 2016

- *20th International Union Against Sexually Transmitted Infections - Asia-Pacific Conference, Okayama, Japan.* (Oral, Dec 2016). “A Global Qualitative Systematic Review of HIV Self-testing.”
- *65th Annual American Society of Tropical Medicine & Hygiene Conference, Atlanta, GA.* (Poster, Nov 2016). “RTS,S Malaria Vaccine Efficacy Does Not Vary with Seasonal Precipitation: Results from a Phase 3 RCT in Lilongwe, Malawi.”
- *21st International AIDS Conference, Durban, South Africa.* (Poster, July 2016). “The Social Context of HIV Self-testing: A Global Qualitative Evidence Synthesis.”
- *UNC Project-Malawi, Lilongwe, Malawi.* (Oral, Mar 2016). “Survival Analysis from a Phase 3 RCT: RTS,S/AS01 Malaria Vaccine Efficacy in Lilongwe, Malawi and its Interaction with Seasonal Precipitation.”
- *Conference on Retroviruses and Opportunistic Infections (CROI) 2016, Boston, MA.* (Poster, Feb 2016). “Tailoring Mass Media MSM HIV Test Interventions to Reach High-Risk Men.”

## 2015

- *8th IAS Conference on HIV Pathogenesis Treatment & Prevention, Vancouver, Canada.* (Oral, July 2015). “Crowdsourcing to Spur First-time HIV Testing among MSM and Transgender Individuals in China: a Non-inferiority Pragmatic Randomized Controlled Trial.”
- *Conference on Retroviruses and Opportunistic Infections (CROI) 2015, Seattle, WA.* (Poster, Feb 2015). “Availability and Quality of Online HIV Self-Test Kits in China and the United States.”

## 2014

- *5th Annual CUGH Conference, Washington, DC.* (Poster, May 2014). “Spurring Innovation in Designing HIV Testing Programs: A Crowdsourcing Contest-based Approach.”

## TEACHING

### AT HARVARD UNIVERSITY

- 2022 Certificate of Distinction in Teaching, Harvard Faculty of Arts and Sciences
- 2021 Certificate of Distinction in Teaching, Harvard T.H. Chan School of Public Health
- 2020 Certificate of Distinction in Teaching, Harvard T.H. Chan School of Public Health

### STAT 286: Causal Inference with Applications, TF, Fall 2022

- Harvard Statistics Department’s graduate-level course on causal inference, taught by Prof. Kosuke Imai
- TF rating: 4.7/5.0; class size: 50



**STAT 293: Design of Experimental/Non-experimental Studies, TF, Spring 2022**

- Harvard Statistics Department's graduate-level reading course on causal inference, focusing primarily on discussing new papers, taught by Prof. Jose Zubizarreta
- TF rating: 4.9/5.0; class size: 15

**BST 223: Applied Survival Analysis, TF, Spring 2022**

- Teaching labs for the Harvard Biostatistics Department's masters-level survival analysis course, taught by Prof. Sebastien Haneuse
- TF rating: 4.9/5.0; class size: 100

**BST 222: Statistical Inference, Head TF, Fall 2019, 2020, 2021, 2022**

- Head TF responsible for developing content and teaching labs for the masters' level statistical inference course, taught by Prof. Rui Duan (2021, 2022) and David Wypij (2019, 2020)
- TF ratings: 4.7/5.0 (2019); 4.8/5.0 (2020); 4.7/5.0 (2021); class size: 70

**Ph.D. Qualifying Exam Summer Course, Instructor, Summer 2021**

- Teaching content review and problem-solving in probability and inference for Ph.D. students in preparation for the theory portion of the Ph.D. qualifying exam (class size: 15)

**BST 238: Advanced Topics in Clinical Trials, Head TF, Spring 2021**

- Designing content and teaching select lectures for advanced topics in clinical trials, e.g., surrogate endpoints; group sequential methods; meta-analyses, taught by Prof. David Wypij
- TF rating: 4.7/5.0; class size: 20

**BST 214: Principles of Clinical Trials, Head TF, Spring 2020, 2021**

- Revising content for a clinical trials course for clinicians and policymakers interested in the scientific, policy, and management aspects of clinical trials, taught by Prof. David Wypij
- TF rating: 4.8/5.0 (2020); 4.9/5.0 (2021); class size: 70

**AT UNC CHAPEL-HILL****HNRS 396: Infectious Diseases, Instructor, Spring 2016**

- One of eight undergraduates selected to build the curriculum and teach a course, titled "The Re-emergence of Infectious Diseases: From Cholera to Ebola and Beyond" (class size: 10)

**GLBL 394: International Relations, TA, Spring 2015, 2016**

- One of 15 students who led a weekly seminar-style recitation section of 300 undergraduates on international relations (recitation size: 20)

**SERVICE****ASA Statistics in Epidemiology Young Investigator Award Review Committee, 2023**

- Reviewing and scoring papers for the ASA Young Investigator Award for JSM.

**International Conference on Health Policy Statistics, Session Organizer, Jan 2023**

- Organized an invited session titled, "Statistical Advances and Policy Implications in Hospital Quality Measurement."

**Harvard Biostatistics Student Committee, Co-President, Aug 2021–Present**

- Organizing town hall meetings and small group discussions to represent Ph.D. student interests, including recruitment, qualifying exams, academics, student-life, and mental health

**Harvard DEIB Committee, Representative, Aug 2020–Present**

- Developed qualitative focus groups and quantitative surveys for Harvard Biostatistics Department efforts in Diversity, Equity, Inclusion, and Belonging (DEIB)
- Spearheading a new mentorship program connecting underrepresented minorities with mentors

**Harvard Graduate Asian Baptist Student Koinonia, President, Aug 2019–Present**

- Organizing Bible study outreach and fellowship for Harvard and Boston-area graduate students

**Rhodes-Schwarzman, Facilitator**, 2019–Present

- Facilitating the *Leading Lives* workshop for incoming and outgoing Schwarzman Scholars

**Morehead Cain Foundation, Selections Interviewer**, 2018–Present

- Interviewing and evaluating high school applicants for the nation’s first merit scholarship

**Harvard Graduate Student Council, Representative**, Sep 2018–May 2021

- Evaluating funding proposals for GSAS conferences and activities

**Carolina Collective Initiative, Steering Committee**, May–Aug 2020

- Organized an open call and judged ideas for the reopening of UNC campus during COVID-19

**Cambridge Judge Teaching Committee, Representative**, Jan–June 2018

- Assessed student and professor feedback for courses at Cambridge Judge Business School and developed a guidance for improving research programs

**Journal of Schwarzman College, Co-Founder and Editor**, Sep 2016–July 2017

- Established Schwarzman College’s first journal aggregating global perspectives on China and developed a framework for a quarterly print publication

**Tsinghua Graduate Student Union, Representative**, Aug 2016–July 2017

- Translated over 300 museum exhibit labels for the Tsinghua University Art Museum
- English voice-over for Xinhua Net’s explanatory video of China’s Two Sessions conference

## REVIEWER

### ASSOCIATE EDITOR

- *Journal of Causal Inference*, 2023–Present

### AD HOC

- *AIDS Care*
- *Biometrics* (2×)
- *Biostatistics*
- *BMC Public Health*
- *BMJ Open*
- *Clinical Trials*
- *Global Public Health*
- *Scientific Reports*
- *Sexually Transmitted Infections*
- *Statistics in Medicine*
- *Trials*

## SKILLS

### Languages & Software

- Native fluency in English and Mandarin Chinese
- R, SAS, Python (NetworkX), MatLab

### Athletic Activities

- American Junior Golf Association All-Star
- Completed a US Army Special Forces Selections and Assessment training course

## REFERENCES

**Tianxi Cai**

*John Rock Professor of Population  
and Translational Data Sciences  
Department of Biostatistics  
Harvard T.H. Chan School of Public Health*  
[tcai.hsph@gmail.com](mailto:tcai.hsph@gmail.com)

**Jose Zubizarreta**

*Professor  
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