

Jinyi Zhu

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ACADEMIC APPOINTMENTS

Vanderbilt University School of Medicine, Nashville, TN

Assistant Professor, Department of Health Policy

2022–present

EDUCATION

Harvard University, Cambridge, MA

Ph.D. in Health Policy (Decision Sciences track)

2016-2022

Yale University, New Haven, CT

M.P.H. in Health Policy

2014-2016

Peking University, Beijing, China

B.S. in Biological Science

2010-2014

B.A. in Economics

2011-2014

University of Toronto, Toronto, Canada

Public Health (Study Abroad Program)

Fall 2012

PUBLICATIONS

Peer-reviewed Original Research

- Corlis J, **Zhu J**, Macul H, Tiberi O, Boothe MAS, Resch SC. Framework for determining the optimal course of action when efficiency and affordability measures differ by perspective in cost-effectiveness analysis—with an illustrative case of HIV treatment in Mozambique. *Cost Eff Resour Alloc.* 2023.
- **Zhu J**, Kamel H, Gupta A, Mushlin AI, Menzies NA, Gaziano TA, Rosenthal MB, Pandya A. Prioritizing Quality Measures in Acute Stroke Care: A Cost-Effectiveness Analysis. *Annals of Internal Medicine.* 2023.
- **Zhu J**, Lyatuu G, Sudfeld CR, Kiravu A, Sando D, Machumi L, Minde J, Chisonjela F, Cohen T, Menzies NA. Re-evaluating the Health Impact and Cost-effectiveness of Tuberculosis Prevention for Modern ART Cohorts: A Modelling Analysis Using Data From Tanzania. *The Lancet Global Health.* 2022.

2022 Top 3 Cost-Effectiveness Analysis Paper of the Year, Tufts CEA Registry

- Pandya A, Paulden M, **Zhu J**, Lavelle T, Hammitt J. Trends in Author-Reported Cost-Effectiveness Thresholds in the US from 1995-2018: Implications for Discount Rates. Medical Decision Making. 2022.
- Chen T, Huang S, Li G, Zhang Y, Li Y, **Zhu J**, Shi X, Li X, Xie G, Zhang L. An integrated framework for modelling quantitative effects of entry restrictions and travel quarantine on importation risk of COVID-19. J Biomed Inform. 2021.
- Gupta S, **Zhu J**, McCarty TR, Pruce J, Kassam Z, Kelly C, Fischer M, Allegretti JR. Cost-Effectiveness Analysis of Sequential Fecal Microbiota Transplantation for Fulminant C. difficile Infection. J Gastroenterol Hepatol. 2021.
- He Q, **Zhu J**, Wang A, Ji K, Ji X, Zhang J, Wu X, Li X, Bu Z, Ji J. A Decision Analysis Comparing Three Strategies for Peritoneal Lavage Cytology Testing in Staging of Gastric Cancer in China. Cancer Med. 2020.
- Spahillari A*, **Zhu J***, Ferket BS, Hunink MGM, Carr JJ, Terry JG, Nelson C, Mwasongwe S, Mentz RJ, O'Brien EC, Correa A, Shah, RV, Murthy VL, Pandya A. Cost-Effectiveness of Contemporary Statin-Allocation Guidelines with or without Coronary Artery Calcium in African Americans. JAMA Cardiol. 2020.
(* Co-first authors)
- Mason SE, **Zhu J**, Rahaghi FN, Washko GR, Pandya A. Cost-effectiveness microsimulation of catheter-directed thrombolysis in submassive pulmonary embolism using a right ventricular function model. J Thromb Thrombolysis. 2020.
- Pandya A, Doran T, **Zhu J**, Walker S, Arntson E, Ryan AM. Modelling the cost-effectiveness of pay-for-performance in primary care in the UK. BMC Med. 2018.

Editorials/Commentaries/Correspondence

- Pandya, **Zhu J**. Focusing on Decisions, Outcomes, and Value Judgments to Confront Algorithmic Bias. JAMA Netw Open. 2023.
- **Zhu J**, Pandya A. The Advantages and Nuances of Using Disability-Adjusted Life Years to Characterize Cardiovascular Disease Burden: Insights From Parents and Offspring. Circ Cardiovasc Qual Outcomes. 2022.
- Pandya A, **Zhu J**, Spahillari A. Cost-effectiveness of Statin Use Guidelines-Reply. JAMA Cardiol. 2021.

WORKING PAPERS

- **Zhu J**, Haneuse S, Yu H, Menzies NA, Pandya A. *“Evaluating Bias and Variance across Different Validation Methods for Simulation Models.”* Under review.

CONFERENCE PRESENTATIONS

(Listing only conference presentations as first or senior author)

- **Zhu J**, Giardina JC, Graves JA, Kunst N, Menzies NA, Pandya A, “*Dispersion Sensitivity Analysis: Investigating Potential Bias in Subgroup Analyses and Implications for Equity-Impact Analyses*”, Oral presentation at the SMDM Annual North American Meeting, Philadelphia, PA, 2023
- Yu H, Graves JA, Garbett S, Leech AA, **Zhu J**, “*Common Random Numbers in Discrete Event Simulation for Disease Modeling: A Statin Treatment Case Study*”, Oral presentation at the SMDM Annual North American Meeting, Philadelphia, PA, 2023
- Kim KR, Yu H, Pandya A, **Zhu J**, “*Past and Future Value Gained Under the Get With The Guideline–Stroke Initiative*”, Poster presentation at the SMDM Annual North American Meeting, Philadelphia, PA, 2023
- Jhang J, Yu H, Gupta A, Mushlin AI, Kamel H, Alemayehu N, Pandya A, **Zhu J**, “*Risk Stratification for Optimal Screening of Asymptomatic Carotid Stenosis: A Simulation Modeling Approach*”, Poster presentation at the SMDM Annual North American Meeting, Philadelphia, PA, 2023
- **Zhu J**, Kamel H, Rosenthal MB, Pandya A, “*Prioritizing Quality Measures in Acute Stroke Care – A Cost-effectiveness Framework*,” E-Poster Presentation at the SMDM Annual North American Meeting, 2021.
- **Zhu J**, Lyatuu G, Sudfeld CR, Menzies NA, “*Health and Economic Implications of an Isoniazid Preventive Treatment Expansion Program Among People Living with HIV in Tanzania*,” Oral Virtual Presentation at the International Health Economics Association (iHEA) Congress, 2021.
- **Zhu J**, Sy S, Sudfeld CR, Pandya A, Lyatuu G, Menzies NA, “*The Use of Common Random Numbers in Improving the Efficiency of Microsimulation Model Calibration*,” Oral Virtual Presentation at the SMDM Annual North American Meeting, 2020.
Lee B. Lusted Student Award finalist in the Quantitative Methods and Theoretical Development Category
- **Zhu J**, Pandya A, “*Evaluating Bias and Variance across Methods for Microsimulation Model Validation*,” Poster Presentation at the SMDM Annual North American Meeting, Portland, OR, 2019.
Lee B. Lusted Student Award winner in the Quantitative Methods and Theoretical Development Category
- **Zhu J**, Pandya A, “*Friends with (Targeting) Benefits: Modeling Communicable Disease Interventions with and without the Friendship Paradox*,” Poster Presentation at the SMDM Annual North American Meeting, Montreal, QC, Canada, 2018.
Lee B. Lusted Student Award finalist in the Quantitative Methods and Theoretical Development Category

INVITED TALKS

- “*Re-evaluating the health impact and cost-effectiveness of tuberculosis preventive treatment for modern HIV cohorts on antiretroviral therapy: A modelling analysis using data from Tanzania*”, guest lecture:

- [Virtual] Advanced Topics in Decision-Analytic Modeling for Health, course taught by Alton Russell, McGill University, Canada, 2023
- “Advanced Modeling Techniques”, guest lectures:
 - [Virtual] Economic Evaluation of Medical Care, course taught by Xuanzi Qin, University of Maryland School of Public Health, College Park, MD, 2023
 - Decision Analysis in Medicine and Public Health, course taught by Ashley Leech, Vanderbilt University School of Medicine, Nashville, TN, 2023
- “Prioritizing Quality Measures in Acute Stroke Care using a Cost-Effectiveness Approach”
 - [Virtual] Department of Health Policy, Vanderbilt University School of Medicine, Nashville, TN, 2022
 - [Virtual] Department of Health Systems, Management & Policy, Colorado School of Public Health, Aurora, CO, 2022
- “Evaluating Bias and Variance across Different Validation Methods for Simulation Models”
 - [Virtual] Health Economics Seminar, University of Oslo, Norway, 2021
 - [Virtual] Program in Health Economics and Outcomes Research Methodologies (PHEnOM), University of Washington, Seattle, WA, 2020
- “Cost-Effectiveness Analysis and Health Decision Science: A Primer”
 - Center for Physician-Scientist Development, Tsinghua University, Beijing, China, 2023
 - National Clinical Research Center for Neurological Diseases, Beijing, China, 2020
 - Health Economics Seminar, National School of Development, Peking University, Beijing, China, 2018

TEACHING EXPERIENCE

Vanderbilt University, Instructor/Co-Instructor

- HPOL 8225: Health Policy Research Seminar *Fall 2022-2023, Spring 2023*
- Health Economics Modeling Workshop (in partnership with Vital Strategies *Fall 2022* and the CDC Foundation; ~30 participants from ~15 countries)

Harvard University, Teaching Assistant

- HPM 260: Health Economics with Applications to Global Health Policy *Summer 2021*
- RDS 202: Decision Science for Public Health *Spring 2021*
- RDS 280: Decision Analysis for Health and Medical Practices *Fall 2016, 2017, 2018[#],*
([#]Head Teaching Assistant) *2019[#], 2020*
- RDS 290: Experiential Learning and Applied Research in Decision Analysis *Spring 2020*
- RDS 285: Decision Analysis Methods in Public Health and Medicine *Spring 2020*
- RDS 288: Methods for Decision Making in Medicine *Summer 2017, 2018, 2019*
- API 302: Analytic Frameworks for Policy *Fall 2018*

- RDS 286: Decision Analysis in Clinical Research *Summer 2017*

Yale School of Public Health, Teaching Assistant

- HPM 583: Methods in Health Services Research *Spring 2016*
- HPM 570: Cost-effectiveness Analysis and Decision Making *Fall 2015*

RESEARCH SUPERVISION

- Kun-Woo Kim, PhD Student in Health Policy, Vanderbilt University School of Medicine *2022-Present*
Role: Academic Co-advisor

FELLOWSHIPS, AWARDS & HONORS

- Top 3 Cost-Effectiveness Analysis Paper of the Year, *Tufts CEA Registry* *2022*
- Joan P. Curhan Citizenship Award, *Harvard Interfaculty Initiative in Health Policy* *2022*
- Teaching Assistant Recognition Award, *Harvard T.H. Chan School of Public Health* *2021*
- Lee B. Lusted Student Prize Stephen Pauker Award for Quantitative Methods and Theoretical Development, *The Society for Medical Decision Making (SMDM)* *2019*
- Distinction in Student Teaching for Teaching Fellows, *Harvard Kennedy School* *2019*
- Howard Raiffa Grant for Teaching Innovations (4,500 USD), *Harvard University* *2018*
- Next Generation Fellowship (merit-based award to cover tuition for the M.P.H. degree program, 65,000 USD), *China Medical Board and Institute of International Education* *2014*

FUNDING INFORMATION

- **Rational Integration of Polygenic Risk Scores (1R01HG012262)** *2022-2027*
National Human Genome Research Institute, PI: Joshua F. Peterson
Role: Co-Investigator, 20% effort
- **Health Economics Modeling Workshop** *2022-2023*
Vital Strategies (Bloomberg Philanthropies and CDC Foundation), PI: John A. Graves
Role: Co-Instructor, 10% effort

PROFESSIONAL SERVICES & AFFILIATIONS

- Professional affiliations:** Society for Medical Decision Making
International Health Economics Association
- Editorial Board Member** Medical Decision Making
- Statistical reviewer:** JAMA Network Open
- Ad-hoc peer reviewer:** Applied Health Economics and Health Policy

BMC Health Services Research
BMC Public Health
BMJ
BMJ Global Health
BMJ Open Diabetes Research & Care
BMJ Public Health
Clinical Infectious Diseases
Cost Effectiveness and Resource Allocation
International Journal of Tuberculosis and Lung Disease, The
Journal of Public Health
Lancet Global Health, The
Medical Decision Making
MDM Policy & Practice
Occupational Medicine
PharmacoEconomics – Open
PLOS Computational Biology
PLOS One
Value in Health