Anna Zink

Assistant Professor Department of Community Health Tufts University Anna.Zink@tufts.edu

EDUCATION

Harvard University Doctor of Philosophy, Health Policy	Cambridge, MA 2022
Secondary Field, Computational Science and Engineering	2022
Carleton College	Northfield, MN
Bachelor of Arts, Mathematics	2011
Oxford University	Oxford, England
Independent Study, Chaotic Dynamics and Discrete Mathematics	Fall 2009
WORK EXPERIENCE	
Chicago Booth Center for Applied AI	Chicago, IL
Principal Researcher	2022 - 2025
athenahealth	Watertown, MA
Senior Data Engineer	2015 - 2017
Center for Biostatistics and AIDS Research	Boston, MA
SAS Programmer II	2013 - 2015
Acumen LLC	Burlingame, CA
Research and Policy Analyst	2011 - 2013
AWARDS & HONORS	
Google Research Scholar Award (with Irene Chen)	2024
NSF Graduate Research Fellowship Program	2019 - 2022

WORK IN PROGRESS

The Effect of AI-Enabled Clinical Software on Health Care Spending and Health Outcomes (with Hannah Neprash and Michael Chernew)

Learning About Decision-Making During Triage with Machine Learning (with Claire Boone, Ziad Obermeyer, Ari Robicsek, and Bill Wright)

WORKING PAPERS

Zink A, Lou H, Chen I. Evaluating and Improving Clinical Risk Prediction Models for Patients with Lower Access to Care. https://www.arxiv.org/pdf/2412.07712.

Hussein R, **Zink A**, et al. Advancing Healthcare AI Governance: A comprehensive maturity model based on systematic review. https://www.medrxiv.org/content/10.1101/2024.12.30.24319785v.1.

Knecht J, **Zink A**, Kolstad J, Peterson M. Deep Causal Behavioral Policy Learning: Applications in Healthcare. https://arxiv.org/abs/2503.03724

Zink A, Wehrly D, et al. (2005). Trends in Prescription Use & Spending Following the Introduction of a Real-Time Prescription Benefit tool. *JAMA Network Open*.

Suriyakumar V.M., **Zink A**, et al. (2025). Computation Challenges Arising in Algorithmic Fairness and Health Equity with Generative AI. *Nature Computational Science*.

Chen I.Y. and **Zink A**. (2025). AI Tools in Human Hands: Measuring Real-World Impact in the Emergency Department. *NEJM AI*.

Zink A, Obermeyer Z, Pierson E. (2024). Race Adjustments in Clinical Algorithms Can Help Correct for Racial Disparities in Data Quality. *PNAS*.

Zink A, Chernew M, Neprash HT. (2024). How Should Medicare Pay for Artificial Intelligence? *JAMA Internal Medicine* May.

Zink A, Boone C, Maddox KJ, Chernew M, Neprash H. (2024). Artificial Intelligence in Medicare: Utilization, Spending, and Access to Medicare-Covered AI-Enabled Clinical Software. *The American Journal of Managed Care* 30.

Boone C, **Zink A**, Robicsek A, Wright B. (2024). Value-Based Contracting in Real World Care. *JAMA Health Forum* 5(8).

Cary MP Jr, **Zink A**, et al. (2023). Mitigating Racial and Ethnic Bias and Advancing Health Equity in Clinical Algorithms: A Scoping Review. *Health Affairs* 42(10).

Zink A and Rose S (2021). Identifying Undercompensated Groups Defined by Multiple Attributes in Risk Adjustment. *BMJ Health & Care Informatics* 28(1).

Neprash HT, **Zink A**, Sheridan B, Hempstead K (2021). The Effect of Medicaid Expansion on Medicaid Participation, Payer Mix, and Labor Supply in Primary Care. *Journal of Health Economics* 80: 102541.

McGuire T, **Zink A**, Rose S (2021). Improving the Performance of Risk Adjustment Systems: Constrained Regressions, Reinsurance, and Variable Selection. Forthcoming in *American Journal of Health Economics*.

Zink A and Rose S (2020). Fair Regression for Health Care Spending. *Biometrics* 76(3): 973-982.

Neprash HT, **Zink A**, Gray J, Hempstead K (2018). Physicians' Participation in Medicaid Increased Only Slightly Following Expansion. *Health Affairs* 37:1087-91.

Barnett ML, Gray J, **Zink A** and Jena AB (2017). Coupling Policymaking with Evaluation — The Case of the Opioid Crisis. *New England Journal of Medicine* 377: 2306-2309.

Hempstead K, Gray J, **Zink A** (2017). Reframing the Unaffordability Debate: Patient Responsibility for Physician Care. *American Journal of Managed Care* 23(11).

Santillana M, Nguyen AT, Louie T, **Zink A**, Gray J, Sung I (2016). Cloud-based Electronic Health Records for Real-time, Region-specific Influenza Surveillance. *Scientific Reports* 6, 25732.

WHITE PAPERS, POLICY BRIEFS, AND EDITORIALS

Zink A, Morriss S, Gangopadhyaya A, Obermeyer Z (2023). Building Equitable Artificial Intelligence in Health Care, *Urban Institute*.

Zink A, McGuire T, Rose S (2022). Balancing fairness and efficiency in health plan payments, *Stanford HAI Policy Briefs*.

Gray J, **Zink A**, Dreyfus T. Effects of the Affordable Care Act through 2015 (2016). *Robert Wood Johnson Foundation and athenahealth*.

GRANTS AND FUNDING

Title: Closing the Gap: Evaluating and Improving Clinical Risk Prediction Models for Patients with Lower

Access to Care **Sponsor:** Google

Project period: 1/2024 - 1/2025

Role: Co-Principal Investigator (with Irene Chen)

Title: The Effect of AI-Enabled Clinical Software on Health Care Spending and Health Outcomes

Sponsor: National Institute for Health Care Management

Project period: 1/2024 – 1/2025

Role: Co-Principal Investigator (with Hannah Neprash)

Title: Predictive Clinical Model Audits in Health Care: A Multi-Centered Pragmatic Implementation to

Inform Practice

Sponsor: Gordan and Betty Moore Foundation

Project period: 8/2023 - 4/2025

Role: Co-Investigator (PI: Brett Beaulieu-Jones)

PRESENTATIONS

Pactice Pattern Changes After Adoption of Diagnostic Artificial Intelligence ASHEcon	2025
Nurse Decision Making During Triage and the Value of Algorithmic Intervention ASHEcon	2025
Nurse Decision Making During Triage and the Value of Algorithmic Intervention Canadian Health Economists' Study Group Conference	2025
Machine Learning for Social Science Research Guest Lecture for the GHP 228, Harvard University	2025
Evaluating and Improving Clinical Risk Prediction Models for Patients with Lower Access to Care International Conference on Health Policy and Statistics (ICHPS)	2025
Evaluating and Improving Clinical Risk Prediction Models for Patients with Lower Access to Care Joint Statistical Meeting (JSM)	2024
Advancing Clinical Decision-Making During Triage with Machine Learning HP/CHIBE Work-in-Progress Research Seminar, UPenn	2024
Effect of Real Time Prescription Benefit Check Tool on Use and Cost of Prescription Drugs ASHEcon	2023
Machine Learning Methods to Evaluate and Improve U.S. Health Policy Guest Lecture for the Machine Learning for Public Policy Class, University of Chicago	2023
AI in Medicare Healthcare Initiative Brownbag Session, University of Chicago	2023
$No\ Longer\ Asking\ Permission:\ Medicaid\ Prior\ Authorization\ Policy\ \&\ Physician\ Prescribing\ Behavior\ ASHEcon$	2022
New Advances for Fairness in Plan Payment Risk Adjustment Joint Statistical Meeting (JSM)	2021
What Does a Formulary Do? Evidence from Drug Plan Assignment in Medicare Part D	2021

ASHEcon

Identifying Undercompensated Groups Defined by Multiple Attributes in Risk Adjustment International Risk Adjustment Network Meeting	2020
Identifying Undercompensated Groups Defined by Multiple Attributes in Risk Adjustment Joint Statistical Meeting (JSM)	2020
Fair Regression for Health Care Spending International Risk Adjustment Network Meeting	2019
Fair Regression for Health Care Spending INFORMS Healthcare Conference	2019
Fair Regression for Health Care Spending ASHEcon	2019

TEACHING EXPERIENCE

Teaching Assistant, Econometric Methods in Impact Evaluation, Harvard School of Public Heal	th 2021
Teaching Assistant, The Quality of the U.S. Health Care System, Harvard College	2019 - 2020
Lecturer, Math Camp for incoming Health Policy PhD students	2019 - 2021
Tutor, Statistical Sleuthing through Linear Models, Harvard College	2019

PROFESSIONAL SERVICE

Ad Hoc Referee: AJMC, Health Affairs, Health Services Research, Journal of Health Economics, JAMA Health Forum, New England Journal of Medicine (NEJM), NEJM AI

Conference Abstract Reviewer: Conference on Health, Inference, and Learning (2025, 2023), ACM Conference on Fairness, Accountability, and Transparency (2023, 2022), NeurIPS (2022)

Professional Memberships: American Society of Health Economists, American Statistical Association