# Chad Stecher

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# **Professional Positions**

Assistant Professor, Arizona State University College of Health Solutions, August 2019 – present

Assistant Professor, Rensselaer Polytechnic Institute Department of Economics, August 2017 – July 2019

### Education

Ph.D. in Economics, University of California, Los Angeles, 2017M.A. Economics, University of California, Los Angeles, 2012B.A. in Economics and Mathematics, Colby College, 2008

## Publications

- 1. Stecher, C., Cloonan, S. & Domino, M. "The Economics of Treatment for Depression." Annual Review of Public Health (forthcoming)
- Ofori, E., Vaillancourt, D., Greig-Custo, M., Barker, W., Hanson, K., DeKosky, S., Garnva, C., Adjoudi, M., Golde, T., Loewenstein, D., **Stecher, C.**, Fowers, R. & Duara, R. "Free-water Imaging Reveals Unique Microstructure in Hispanic Individuals with Dementia." *Brain Imagining and Behavior (forthcoming)*
- 3. Hustedt, J., Chartrand, N., Merrell, D., Reichenbach, R., Pinkston, E. & **Stecher, C.** "The moderating effect age on patient reported benefits from operative management of intra-articular distal radius fractures: A meta-regression analysis." *Journal of Hand Surgery (forthcoming)*
- Stecher, C., Pagni, B., Cloonan, S., Vink, S., Hill, E., Ogbeama, D., Delaney, S. & Braden, B. "App-Based Meditation Habits Maintain Reductions in Depression Symptoms Among Autistic Adults." *Autism (forthcoming)*
- Cloonan, S., Fowers, R., Huberty, J. & Stecher, C. 2023. "Meditation App Habits and Mental Health: A Longitudinal Study of Meditation App Users During the COVID-19 Pandemic." *Mindfulness (forthcoming)*
- Chartrand, N., Stecher, C., Rajendra, S., Rosenkrantz, A., Duszak, R. & Hughes, D. 2023. "An Examination of Racial and Ethnic Disparities in the Use of Prostate Biopsy and Magnetic Resonance Imaging in Prostate Cancer Screening: A Retrospective Cohort Study." Urology Practice; 10 (6): pp. 612 619.

- Stecher, C., Cloonan, S., Linnemayr, S. & Huberty, J. 2023. "Combining Behavioral Economics-Based Incentives with the Anchoring Strategy: Protocol for a Randomized Controlled Trial." *JMIR Research Protocols (forthcoming)*
- Sullivan, M., Huberty, J., Chung, Y. & Stecher, C. 2023. "Mindfulness Meditation App Abandonment During the COVID-19 Pandemic: An Observational Study." *Mindfulness (forthcoming)*
- Twesten, J., Stecher, C., Arinaitwe, J. & Parascandola, M. 2023. "Tobacco-Related Health and Policy Research on the African Continent: A 22-Year Literature Review and Network Analysis." *Tobacco Control (forthcoming)*
- Stecher, C., Pfisterer, B., Harden, S., Epstein, D., Hirschmann, J., Wunsch, K. & Buman, M. 2023. "Assessing the Pragmatic Nature of mHealth Interventions Promoting Physical Activity: A Systematic Review and Meta-Analysis." *JMIR mHealth and uHealth (forthcoming)*
- 11. Berardi, V., Fowers, R., Rubin. G. & **Stecher, C.** 2023. "Do Time of Day Preferences and Daily Temporal Consistency Predict the Sustained Use of a Commercial Meditation App?: Longitudinal Observational Study." *JMIR: Journal of Medical Internet Research (forthcoming)*
- Stecher, C., Palimaru, A., Odiit, M., Lunkuse, L., Walukaga, S. & Linnemayr, S. 2023. "Barriers and Facilitators of Antiretroviral Therapy (ART) Adherence Habit Formation in Sub-Saharan Africa: Evidence From a Qualitative Study in Kampala, Uganda" Social Science & Medicine; 317: 115567.
- 13. Stecher, C. & Ketcham, J. 2023. "Learning to work together: Productivity gains from shared experience among cardiology teams." American Journal of Health Economics (forthcoming)
- 14. McCullough, M. & **Stecher, C.** 2023. "Associations Between Provider Financial Models and Use of Health Information Exchange (HIE): Are Alternative Payment Models Associated With Increased Uptake of HIE?" *American Journal of Managed Care (forthcoming)*
- Hui, C., Kisana, H., Martin, J., Stecher, C., Carter, T., Lederman, E. & Hustedt, J. 2023. "Physician Professional Fees Are Declining and Inpatient and Outpatient Facility Fees Are Increasing for Orthopedic Procedures in the United States." Arthroscopy: The Journal of Arthroscopy and Related Surgery; 39(2): pp. 384 389.
- 16. Boronowsky, R., Zhang, A., Stecher, C., Presley, K., Mathur, M., Cleveland, D., Garnett, E., Wharton, C., Brown, D., Meier, A., Wang, M., Braverman, I. & Jay, J. 2023. "Plant-based default nudges effectively increase the sustainability of catered meals on college campuses: Three randomized controlled trials." *Frontiers in Sustainable Food Systems (forthcoming)*
- Stecher, C., Ghai, I., Lunkuse, L., Wabukala, P., Odiit, M., Nakanwagi, A. & Linnemayr, S. 2022.
  "INcentives and ReMINDers to Improve Long-term Medication Adherence (INMIND): Protocol for a Pilot Randomized Controlled Trial in Uganda" *JMIR Research Protocols*; 11(10): e42216
- Fowers, R., Berardi, V., Huberty, J. & Stecher, C. 2022. "Using Mobile Meditation App Data to Predict Future App Engagement: An Observational Study." *JAMIA: Journal of the American Medical Informatics Association*; 29(12): pp. 2057 – 2065.

- Koskan, A., Stecher, C. & Helitzer, D. 2022. "Influences on Male College Students' Patient-Provider Communications and Uptake Behaviors Related to the Human Papillomavirus Vaccine." Journal of American College Health; 1 – 7.
- Kisana, H., Hui, C., Martin, J., Stecher, C. & Hustedt, J. 2021. "Development of a Risk Stratification Scoring System to Predict General Surgical Complications in Foot and Ankle Surgery Patients." *Orthopedics*; 45(3): pp. 139-144.
- Abashidze, N., Stecher, C., Rosenkrantz, A., Duszak, R. & Hughes, D. 2021. "Racial and Ethnic Disparities in the Use of Prostate MRI Following an Elevated Prostate-Specific Antigen Test." JAMA Network Open; 4(11): pp. e2132388.
- Stecher, C., Sullivan, M. & Huberty, J. 2021. "Using Personalized Anchors to Establish Routine Meditation Practice with a Mobile App: Randomized Controlled Trial." *JMIR mHealth and uHealth*; 9(12): pp. e32794.
- Stecher, C., Everhart, A., Smith, L., Jena, A., Ross, J., Desai, N., Shah, N. & Karaca-Mandic, P. 2021. "Physician Network Connections Associated with Faster De-Adoption of Dronedarone for Permanent Atrial Fibrillation." *Circulation: Cardiovascular Quality and Outcomes*; 14(10): pp. e008040.
- Adams, M., Todd, M., Angadi, S., Hurley, J., Stecher, C., Berardi, V., Phillips, C., McEntee, M., Hovell, M. & Hooker, S. 2021. "Adaptive Goals and Reinforcement Timing to Increase Physical Activity in Adults: A Factorial Randomized Trial" *American Journal of Preventive Medicine*; 62(2): pp. e57 – e68.
- Wagner, Z., Stecher, C., Saya, U. & Linnemayr, S. 2021. "The Impact of the COVID-19 Pandemic on Use of HIV Care, Antiretroviral Therapy Adherence, and Viral Suppression: An Observational Cohort Study from Uganda." *JAIDS: Journal of Acquired Immune Deficiency Syndromes*; 88(5): pp. 448.
- Stecher, C., Fowers, R., Christ, J., Berardi, V., Chung, Y. & Huberty, J. 2021. "Identifying App-Based Meditation Habits and the Associated Mental Health Benefits: Longitudinal Observational Study." *JMIR: Journal of Medical Internet Research*; 23(11): pp. e27282.
- Keister, L., Stecher, C., Aronson, B., McConnell, W., Hustedt, J. & Moody, M. 2021. "Provider Bias in Prescribing Opioid Analgesics: A Study of Electronic Medical Records at a Hospital Emergency Department." *BMC Public Health*; 21(1): pp. 1 – 9.
- Stecher, C., Mukasa, B. & Linnemayr, S. 2021. "Uncovering a Behavioral Strategy for Establishing New Habits: Evidence from Incentives for Medication Adherence in Uganda." *Journal of Health Economics*; 77: pp. 102443.
- 29. Stecher, C. 2021. "Physician Network Connections to Specialists and HIV Quality of Care" *Health Services Research*; 56(5): pp. 908 918.
- 30. Stecher, C. & Linnemayr, S. 2021. "Promoting Antiretroviral Therapy Adherence Habits: A Novel Approach Based on a Synthesis of Economic and Psychological Theories of Habit Formation.." *AIDS*;

35(5): pp. 711–716.

- Bhuiyan, N., Puzia, M., Stecher, C. & Huberty, J. 2021. "Associations Between Rural-Urban Status, Health Outcomes and Behaviors, and COVID-19 Perceptions Among Meditation App Users: A Longitudinal Survey." JMIR mHealth and uHealth; 9(5): pp. e26037.
- Huberty, J., Puzia, M., Green, J. & Stecher, C. 2021. "Mental health and meditation practices of pregnant women during COVID-19." Obstetrics and Gynecology Research; 4: 1-6.
- 33. Koskan, A., Klasko-Foster, L., Stecher, C., Rodriguez, S., Helitzer, D. & Yoo W. 2021. "Human Papillomavirus (HPV) Vaccine Guideline Adherence Among Arizona's Medicaid Beneficiaries." *Vaccine*; 39(4): pp. 682–686.
- Huberty, J., Green, J., Puzia, M. & Stecher, C. 2021. "Evaluation of Mood Check-in Feature for Participation in Meditation Mobile App Users: Retrospective Longitudinal Analysis." *JMIR mHealth* and uHealth; 9(4): pp. e27106.
- 35. Green, J., Huberty, J., Puzia, M. & Stecher, C. 2021. "The Effect of Meditation and Physical Activity on the Mental Health Impact of COVID-19–Related Stress and Attention to News Among Mobile App Users in the United States: Cross-sectional Survey." JMIR Mental Health, 8(4): pp. e28479.
- 36. Linnemayr S., Stecher C., Saya U., MacCarthy, S., Wagner, Z., Jennings, L. & Mukasa, B. 2020. "Behavioral Economics Incentives to Support HIV Treatment Adherence (BEST): Protocol for a randomized controlled trial in Uganda." *Trials*; 21(1): pp. 1–13.
- Koskan, A., Stecher, C. & Helitzer, D. 2020. "College Males' Behaviors, Intentions, and Influencing Factors Related to Vaccinating Against HPV." *Human Vaccines and Immunotherapeutics*; 17(4): pp. 1044–1051.
- Linnemayr, S. & Stecher, C. 2017. "Behavioral Economic Incentives to Improve Adherence to Antiretroviral (ARV) Medication: Early Evidence from a Randomized Controlled Trial in Uganda." *AIDS*; 31(5): pp. 719 – 726.
- Linnemayr, S. & Stecher, C. 2015. "Behavioral Economics Matters for HIV Research: The Impact of Behavioral Biases on Adherence to Antiretrovirals (ARVs)." *AIDS and Behavior*; 19(11): pp. 2069 – 2075.
- 40. Datar, A., Liu, J., Linnemayr, S. & **Stecher, C**. 2013. "The Impact of Natural Disasters on Child Health and Investments in Rural India." *Social Science & Medicine*; 76(1): pp. 83 91.

#### Currently under review

 Hustedt, J., Stecher, C., Hui, C., Kisana, H., Martin, J., Ruan, E. Roache, W., Robaina, J., Shah, A, Lederman, E & McKee, M. "A comparison of responsiveness and minimally clinically important differences of patient reported outcomes in the orthopedic literature." JAAOS Global Research & Reviews (R & R)

- Kisana, H., Hui, C., Martin, J., Deeyor, S., Stecher, C. & Hustedt, J. 2022. "Complications Associated with Anesthetic Choice for Elective Foot and Ankle Surgery." JAAOS Global Research & Reviews (R & R)
- Stecher, C., Chen, C., Codella, J. & Hendler, J. "Promoting Contextually Cued Physical Activity Habits: A Pilot Study Using Cue-Contingent Financial Incentives for Daily Walking" Journal of Behavioral Medicine (R & R)
- Khalid, H., Firdous, U., Jadoon, A., Stecher, C., Akram, A., & Fox, A. "Can high-profile endorsements improve COVID-19 vaccine uptake and reduce hesitancy in Pakistan?" Health Systems (R & R)
- 5. Berardi, V., Phillips, C., McEntee, M., Stecher, C., Todd, M. & Adams, M. "Does Delay Discounting Moderate or Mediate the Effects of Immediate Financial Incentives for Increasing Adults' Physical Activity in a Year-Long Intervention?" Annals of Behavioral Medicine (R & R)
- Linnemayr, S., Wagner, Z., Saya, U., Stecher, C., Lunkuse, L., Wabukala, P., Odiit, M. & Mukasa, B. "Behavioral economic incentives to support ART adherence, clinic attendance, and viral suppression: Results from a randomized controlled trial in Uganda" *JAIDS*
- 7. Sullivan, M., Cloonan, S., Huberty, J. & **Stecher, C.** "What Predicts App Engagement? The Association Between Motivation Measures and Meditation App Use Among New Subscribers." *Journal* of Health Psychology
- 8. Stecher, C., Linnemayr, S. & Huckfeldt, P. "Healthcare Cost Savings from mHealth Tool for Improving Medication Adherence across Chronic Conditions." *American Journal of Managed Care*
- Wagner, Z., Wang, Z., Stecher, C., Haberer, J. & Linnemayr, S. "The Association Between Adherence to Antiretroviral Therapy and Viral Suppression Under New Treatment Regimens: An Observational Cohort Study From Uganda" JAIDS
- Fowers, R., Coza, A., Chung, Y., Ghasemzadeh, H. & Stecher, C. "Identifying Common Patterns in the Time of Day of Mindfulness Meditation Associated with Long-Term Maintenance." *Journal* of the American Medical Informatics Association

#### Sponsored Research

- PI with Co-Is Dr. Matthew Buman, Sarah Keadle, and Dorothy Sears. 2023 present StandUPTV Habits: Feasibility trial for maintaining reductions in sedentary screen time; NIDDK: R01 DK135488
- Co-I with PI Dr. Sebastian Linnemayr and Co-Is Drs. Mukasa & MacCarthy. 2020 2023 INcentives and ReMINDers to Improve Long-term Medication Adherence (INMIND); NIMH: R34 MH122331
- 3. Co-I with Dr. Christopher Wharton. 2022 2023

Towards a KAITEKI Future: Global Health and Food Systems Sustainability in the era of Global Disruption; Kaiteki Foundation

4. Co-PI with Dr. Jennifer Huberty. 2020 – 2021

Mindfulness Takes Practice: Optimizing mHealth Tools for Building Persistent Mindfulness Meditation Habits; CHS COVID Jumpstart Grant

- Co-I with PI Dr. J. Mac McCullough. 2020 2021
  Physicians' Use, Exchange, and Evaluation of Electronic Medical Records; Arizona Health Care Cost Containment System (AHCCCS)
- PI with Co-Is Drs. Jim Hendler and Mohammed Zaki, RPI, 2018 2019 Targeting Habit Formation Through a Smartphone Application; FY2018 KIP Award #141535 1092
- Consultant with PI Dr. Sebastian Linnemayr, RAND Corporation. 2017 2022
  Behavioral Economics Incentives to Support HIV Treatment Adherence in Sub-Saharan Africa (BEST); NIMH: R01 MH110350
- Graduate Research Assistant for PI Dr. Sebastian Linnemayr, RAND Corporation. 2012 2017 Variable Rewards Incentives for ART Adherence in Uganda; NIMH: R34 MH096609

#### **Teaching Experience**

Instructor, Arizona State University

Optimizing Health & Performance (Undergraduate): 1 semester

Evidence-Based Practice (Undergraduate): 1 semester

Economics for Health Majors (Undergraduate): 1 semester

Health Economics (Masters): 5 semesters

Instructor, Rensselaer Polytechnic Institute

Behavioral Economics (Undergraduate/Graduate): 4 semesters

Econometric Methods for Big Data (Undergraduate/Graduate): 2 semesters

Teaching Assistant, University of California, Los Angeles

Econometrics (Undergraduate): 1 quarter

Intermediate Microeconomics Theory (Undergraduate): 1 quarter

Principles of Microeconomics (Undergraduate): 1 quarter

#### Presentations

- 2023 Society of Behavioral Medicine 44th Annual Meeting & Scientific Sessions
- 2022 American Society of Health Economics, 11th Annual Conference
- 2022 The Center for Health Information and Research (CHiR) Seminar Series
- 2021 Western Economic Association International, 96th Annual Conference
- 2021 American Society of Health Economics, 10th Annual Conference
- 2021 Society of Behavioral Medicine 42nd Annual Meeting & Scientific Sessions
- 2020 Triangle Health Economics Workshop, UNC Chapel Hill
- 2020 American Society of Health Economics, 9th Annual Conference
- 2019 Southern Economic Association, 89th Annual Meeting
- 2018 6th Workshop in Behavioral and Experimental Health Economics, University of Oslo
- 2018 Department of Economics, SUNY-Albany
- 2018 Department of Economics, SUNY-Buffalo
- 2017 Institute for Healthcare Delivery Science Seminar Series, Ichan School of Medicine at Mount Sinai
- 2017 Rockefeller Institute of Government, SUNY-Albany
- 2017 Cancer Research Group (CARGO), RPI
- 2017 RPI-IBM Center for Health Empowerment by Analytics, Learning, and Semantics (HEALS), RPI

#### Service

#### **College of Health Solutions**

Science of Health Care Delivery, Strategic Initiatives Committee; Member, 2020 - present

Science of Health Care Delivery, Master's Curriculum Committee Member, 2021 – present

CHS Ph.D. Programs, 2020 - present

Biomedical Informatics Program: Chair (1) Ph.D. Dissertation Committee Exercise and Nutrition Sciences Program: Char (1) Ph.D. Dissertation Committee

Research and Scholarship Learning Group; Member, 2019 - present

Science of Health Care Delivery Faculty Adviser (below): 2019 – present

Graduate student theses (capstone): 7

Barrett Honors Program theses: Chair 4; Member 5

ARCS Fellowship Review Committee Member, 2020 - present

CHS Faculty Mentorship Program, Mentee, 2020 – present

Building Industry Partnerships Committee Member; Member, 2019 – 2021

COVID Translational Team; Lead of Behavioral Health sub-committee, 2020 – 2021

BMI/CHiR Director Faculty Search Committee; Member, 2020 – 2021

CHS COVID Jumpstart Grant Review Committee; Member, 2020

CHS Health Talk; Presenter - Nov. 2020

CHS Research Day; Presenter - Jan. 2020

## Community

Greener by Default, Scientific Advisory Board Member, 2021 – present University of Arizona Medical School, Scholarly Projects; Faculty Advisor, 2020 – present Phoenix: Fast Track Cities Ad Hoc Committee; Member, 2020 – present Calm, Inc.: Scientific Advisory Board Member, 2021 – 2022