

# Chad Stecher

College of Health Solutions  
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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, 2017

M.A. Economics, University of California, Los Angeles, 2012

B.A. in Economics and Mathematics, Colby College, 2008

## Publications

1. Reichenbach, R., Chartrand, N., **Stecher, C.**, Renfree, S., Stickels, M. & Hustedt, J. 2024. “Higher Revision Rates With In Situ Decompression as Compared to Ulnar Nerve Transposition for Cubital Tunnel Syndrome: A Meta-Regression Analysis.” *Cureus*; 16(8): e68116.
2. Wagner, Z., Wang, Z., **Stecher, C.**, Karamagi, Y., Odiit, M., Haberer, J. & Linnemayr, S. “The Association Between Adherence to Antiretroviral Therapy and Viral Suppression Under Dolutegravir-Based Regimens: An Observational Cohort Study from Uganda.” *Journal of the International AIDS Society (JIAS)*; 27(8): e26350.
3. 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?” *SSM – Health Systems*; 3, pp. 100020.
4. Zhang, A., Wharton, C., Cloonan, S., Boronowsky, R., Magesh, V., Braverman, I., Marquez, A., Leidy, H., Wang, M., Cleveland, D., Jay, J. & **Stecher, C.** 2024. “Changing the default meal option at university events to reduce harmful environmental impacts: Six randomized controlled trials.” *Appetite*; 200, pp. 107572.
5. Linnemayr, S., Odiit, M., Mukasa, B., Ghai, I. and **Stecher, C.** 2024. “Incentives and Reminders to Improve Long-Term Medication Adherence (INMIND): Impact of a Pilot Randomized Controlled Trial in a Large HIV Clinic in Uganda.” *The Journal of the International AIDS Society (JIAS)*; 27(6): e26306.

6. **Stecher, C.**, Linnemayr, S., Cloonan, S., Reaven, P. & Huckfeldt, P. 2024. “Healthcare Cost Savings from an mHealth Tool for Improving Medication Adherence across Chronic Conditions.” *American Journal of Managed Care* (forthcoming)
7. Berardi, V., Phillips, C., McEntee, M., **Stecher, C.**, Todd, M. & Adams, M. 2024. “The Impact of Monetary Incentives on Delay Discounting Within a Year-Long Physical Activity Intervention.” *Annals of Behavioral Medicine*; 58(5): pp. 341 – 352
8. Linnemayr, S., Wagner, Z., Saya, U., **Stecher, C.**, Lunkuse, L., Wabukala, P., Odiit, M. & Mukasa, B. 2024. “Behavioral Economic Incentives to Support HIV Care: Results from a Randomized Controlled Trial in Uganda.” *JAIDS: Journal of Acquired Immune Deficiency Syndromes*; 96(3): pp. 250 – 258.
9. **Stecher, C.**, Chen, C., Codella, J. & Hendler, J. 2024. “Combining Anchoring with Financial Incentives to Increase Physical Activity: A Randomized Controlled Trial Among College Students.” *Journal of Behavioral Medicine*; 47: pp. 751 – 769.
10. **Stecher, C.**, Cloonan, S. & Domino, M. 2024. “The Economics of Treatment for Depression.” *Annual Review of Public Health*; 45: pp. 527 – 551.
11. 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. 2023. “Free-water Imaging Reveals Unique Brain Microstructural Deficits in Hispanic Individuals with Dementia.” *Brain Imaging and Behavior*; 18: pp. 106 – 116.
12. Hustedt, J., Chartrand, N., Merrell, D., Reichenbach, R., Pinkston, E. & **Stecher, C.** 2023. “The Moderating Effect of Age on Patient-Reported Benefits From Operative Management of Intra-Articular Distal Radius Fractures: A Meta-Regression Analysis.” *The Journal of Hand Surgery*; 48(12): pp. 1193 – 1199.
13. **Stecher, C.**, Pagni, B., Cloonan, S., Vink, S., Hill, E., Ogbeama, D., Delaney, S. & Braden, B. 2023. “App-Based Meditation Habits Maintain Reductions in Depression Symptoms Among Autistic Adults.” *Autism*; 28(6): pp. 1487 – 1502.
14. 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*; 14: pp. 2276 – 2286.
15. 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.
16. **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*; 12: e39930.

17. Sullivan, M., Huberty, J., Chung, Y. & **Stecher, C.** 2023. "Mindfulness Meditation App Abandonment During the COVID-19 Pandemic: An Observational Study." *Mindfulness*; 14: pp. 1504 – 1521.
18. 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*; Published Online First: 17 April 2023.
19. **Stecher, C.**, Pfisterer, B., Harden, S., Epstein, D., Hirschmann, J., Wunsch, K. & Buman, M. 2023. "Assessing the pragmatic nature of mobile health interventions promoting physical activity: Systematic review and meta-analysis." *JMIR mHealth and uHealth*; 11: e43162.
20. Berardi, V., Fowers, R., Rubin, G. & **Stecher, C.** 2023. "Time of day preferences and daily temporal consistency for predicting the sustained use of a commercial meditation app: Longitudinal observational study." *Journal of Medical Internet Research*; 25(1): e42482.
21. **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.
22. **Stecher, C.** & Ketcham, J. 2023. "Learning to work together: Productivity gains from shared experience among cardiology teams." *American Journal of Health Economics*; 9(2): pp. 231-26.
23. McCullough, M. & **Stecher, C.** 2023. "Associations Between Physician Practice Models and Health Information Exchange." *American Journal of Managed Care*; 29(1).
24. 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.
25. 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*; 6: pp. 1001157.
26. **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
27. 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.
28. 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.

29. Zhang, A., Boronowsky, R., Braverman, I., **Stecher, C.**, Cleveland, D., Garnett, E., Wang, M. and Jay, J. 2022. “Using the Default Nudge to Increase Plant-based Meal Consumption on College Campuses.” *Current Developments in Nutrition*; 6(1): pp. 84.
30. 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.
31. 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.
32. **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.
33. **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 Dronedaron for Permanent Atrial Fibrillation.” *Circulation: Cardiovascular Quality and Outcomes*; 14(10): pp. e008040.
34. 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.
35. 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.
36. **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.
37. 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.
38. **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.
39. **Stecher, C.** 2021. “Physician Network Connections to Specialists and HIV Quality of Care” *Health Services Research*; 56(5): pp. 908 – 918.
40. **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.

41. 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.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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.
49. 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.
50. 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

1. 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.” (*R & R*)
2. Kisana, H., Hui, C., Martin, J., Deeyor, S., **Stecher, C.** & Hustedt, J. 2022. “Complications Associated with Anesthetic Choice for Elective Foot and Ankle Surgery.” (*R & R*)

3. Sullivan, M., Cloonan, S., Huberty, J. & **Stecher, C.** “What Predicts App Engagement? The Association Between Motivation Measures and Meditation App Use Among New Subscribers.”
4. Tsega, Y., Endawkie, A., Tsega, G., Mekonen1, A., Dawed, Y., & **Stecher, C.** “Trends and Socioeconomic Inequality in Recommended Antenatal Care (ANC) Service Utilization in Ethiopia: A Decomposition Analysis Using Ethiopian Nationwide Demographic Health Survey Data from 2011-2019”
5. Adewale, O., Arauji, R., Hassan, U. A., Ofori, E., **Stecher, C.** & Werneck, A. “Secular trends and sociodemographic correlates of physical activity among adults in eleven African countries: WHO STEPS 2003 – 2020”
6. Fowers, R., Chung, Y., Ghasemzadeh, H. & **Stecher, C.** “Association Between Consistent Time of Day of Pill-Taking and Long-term Medication Adherence.”

## Sponsored Research

1. PI with Co-Is Drs. Helitzer, LoVecchio, Chen & Linnemayr. 2024 – *present*  
mobile Cued Adherence Therapy (mCAT): a scalable habit formation intervention to improve blood pressure medication adherence based on a widely used smartphone app;  
NHLBI: R01 HL171706
2. mPI with Dr. Sebastian Linnemayr; Co-Is Drs. Kalmin, Odiit & Mukasa. 2024 – *present*  
R01: INcentives and ReMINDers to Improve Long-term Medication Adherence (INMIND);  
NIMH: R01 MH135751
3. PI with Co-Is Dr. Buman, Chen, Keadle & Sears. 2023 – *present*  
StandUPTV Habits: Feasibility trial for maintaining reductions in sedentary screen time;  
NIDDK: R01 DK135488
4. 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
5. 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
6. 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)
7. Co-I with PI Dr. Edward Ofori. 2023 – 2024

Racial and Ethnic Disparities in Sepsis-Related Outcomes and the Impact of the SEP-1 Bundled Payment on Long-Term Outcomes in Arizona; CHS Center for Health Information and Research (CHiR) Pilot Grant (ASU)

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

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

9. 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 (RPI)

## 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): 9 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**

- 2024 American Society of Health Economics, 13th Annual Conference
- 2024 Society of Behavioral Medicine 45th Annual Meeting & Scientific Sessions
- 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**

- Academic Standards and Grievances Committee; Member, 2024 – present
- 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 (2) 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 6; Member 7
- 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**

Kooth Digital Health, Scientific Advisory Board Member, 2024 – present

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