The Faculty of Medicine of Harvard University **Curriculum Vitae**

Date Prepared: December 19, 2022

Name: Ashley L. O'Donoghue

Office Address: 330 Brookline Ave, Boston, MA 02215

Work Email: aodonogh@bidmc.harvard.edu

Education:

2015 BA Economics, Mathematics **Assumption College**

2017 MA **Economics** Clark University 2020 PhD **Economics** Clark University

(Advisor: Wayne Gray)

Postdoctoral Training:

2021 - 2022 Research Fellow in Department of Medicine Beth Israel Deaconess Medical

> Medicine Center

Appointments at Hospitals/Affiliated Institutions:

2022 -Instructor in Medicine Beth Israel Deaconess Medical Department of Medicine

Center

2018 - 2020 Pre-Doctoral Research Center for Healthcare Beth Israel Deaconess Medical

> Fellow **Delivery Science**

Center

2020 -**Economist** Center for Healthcare Beth Israel Deaconess Medical

Delivery Science Center

Other Professional Positions:

2014 - 2015 Research Intern Worcester Regional

Research Bureau

2015 - 2019 **Teaching Assistant** Clark University

2016 - 2018 Summer Research Clark University

Assistant

2018 - 2019 Instructor **Clark University**

Major Administrative Leadership Positions:

Local

2020 -Center for Healthcare Delivery Science, Lead, Data Science Team

Beth Israel Deaconess Medical Center

Professional Societies:

2019 - Southern Economic Association Member

2019 - American Society of Health Economists

2019 - Member

2020 - Scientific Review Committee

2020 - AcademyHealth Member

2020 - American Economic Association Member

2020 - International Health Economics Association

2020 - Member

2020 - Early Career Researchers

Special Interest Group

2020 - COVID-19 Research Group

2023 Scientific Committee Review

Panel

Editorial Activities:

Ad hoc Reviewer

JAMA

JAMA Health Forum

JAMA Psychiatry

JAMA Network Open

Health Services Research

BMC Medical Education

BMC Medical Informatics and Decision Making

BMC Pregnancy and Childbirth

Journal of Clinical Outcomes Management

npj Digital Medicine

Scientific Reports

Honors and Prizes:

2011	Presidential scholarship	Assumption College	Merit-based
2011 - 2014	Dean's List	Assumption College	
2014	Kappa Mu Epsilon	Assumption College	Mathematics honors society
2014	Omicron Delta Epsilon	Assumption College	Economics honors society
2014	Conference Travel Award	Assumption College	

2015	Full tuition remission	Clark University	Merit-based
2017	Best Teaching Assistant in Economics	Department of Economics, Clark University	Departmental award
2018	Best Teaching Assistant in Economics	Department of Economics, Clark University	Departmental award
2019	Outstanding Teaching Assistant of the Year	Clark University	University award
2020	First Place	Massachusetts Institute of Technology Covid-19 Challenge Datathon	Lead of winning team

Report of Funded and Unfunded Projects

Past

2018 - 2022 A new approach to patient safety: identifying risky clinical states to reduce preventable

harms for hospitalized patients
Doris Duke Charitable Foundation
Co-Investigator (PI: Jennifer Stevens)

Despite ambitious efforts to improve the safety of hospitalized patients, the rate of preventable harms remains unchanged. Our proposal will develop and refine a tool to quantify the level of risk of preventable patient harms of intensive care units, prospectively validate this tool, and spread this tool to a new clinical environment.

Current

2020 - 2022 Quantifying secondary health impacts of Covid-19

Google.org

Co-Investigator (PI: Jennifer Stevens)

The goal of this project is to quantify the impact of Covid-19 on non-Covid-associated healthcare. A fundamental hypothesis is that preventive care and routine care will be delayed and deferred, leading to subsequent increased healthcare utilization

Report of Local Teaching and Training

Teaching of Students in Courses:

2015 - 2016	Teaching Assistant, Economics and the World Economy 50 undergraduate students Student evaluations: 4.5/5.0 and 4.6/5.0	Clark University 17.5 hours per week
2016 - 2017	Teaching Assistant, Introduction to Statistics 40 undergraduate students Student evaluations: 4.9/5.0 and 4.8/5.0	Clark University 17.5 hours per week
2017	Teaching Assistant, Economics and the World Economy 50 undergraduate students Student evaluations: 4.8/5.0	Clark University 17.5 hours per week

2018	Teaching Assistant, Introduction to Statistics 40 undergraduate students Student evaluations: 4.8/5.0	Clark University 17.5 hours per week
2018	Instructor, Economics and the World Economy 30 undergraduate students Student evaluations: 4.8/5.0	Clark University 17.5 hours per week
2019	Teaching Assistant, Economics and the World Economy 50 undergraduate students Student evaluations: 4.9/5.0	Clark University 17.5 hours per week
2019	Instructor, Economics and the World Economy 30 undergraduate students Student evaluations: 4.9/5.0	Clark University 17.5 hours per week

Local Invited Presentations:

No presentations	helow were	sponsored by 3rd	parties/outside entities
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No prese	ntations below were sponsored by 3° parties/outside entitles
2020	Prospective cohort study of a proof-of-concept method to monitor nursing stress in the emergency department before and after an operational change Artificial Intelligence/Machine Learning Symposium, Beth Israel Deaconess Medical Center
2020	Real-time machine-learning driven Covid-19 forecasting Invited research lecture Center for Healthcare Delivery Science Work-in-Progress Seminar, Beth Israel Deaconess Medical Center
2020	Real-time machine-learning driven Covid-19 forecasting Invited research lecture Department of Healthcare Quality Seminar, Beth Israel Deaconess Medical Center
2020	Reopening businesses and risk of Covid-19 transmission Invited research lecture Center for Healthcare Delivery Science Work-in-Progress Seminar, Beth Israel Deaconess Medical Center
2020	The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals Invited healthcare delivery science grand rounds Beth Israel Deaconess Medical Center
2022	The impact of positive and negative feedback loops in delivery rooms on mode of delivery and maternal health Invited research lecture

Report of Regional, National and International Invited Teaching and Presentations

General Medicine Research Division Conference

Beth Israel Deaconess Medical Center

No presentations below were sponsored by 3rd parties/outside entities

Regional	
2019	The effect of naloxone access on opioid-related mortality Selected oral abstract 17 th Multidisciplinary Conference, Clark University, Worcester, MA
2019	The effect of naloxone access on opioid-related mortality Invited research lecture Economics Seminar Series, Fitchburg State University, Fitchburg, MA
2020	Real-time machine-learning driven Covid-19 forecasting Invited research lecture Massachusetts Health Data Consortium, Virtual Webinar
National	
2019	The effect of a large-scale workfare program on child marriage in India Selected oral abstract
	International Union for the Scientific Study of Population Research Meeting, Ann Arbor, MI
2019	The effect of a large-scale workfare program on child marriage in India Selected oral abstract Southern Economic Association Appual Meeting, Fort Lauderdale, El
	Southern Economic Association Annual Meeting, Fort Lauderdale, FL
2020	The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals Selected oral abstract Eastern Economic Association Annual Meeting, Boston, MA
2020	The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals Selected oral abstract American Society of Health Economists Annual Meeting, St. Louis, MO This presentation was scheduled, but then cancelled because of a Covid-19 travel/meeting ban.
2020	The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals Selected oral abstract Southern Economic Association Annual Meeting, New Orleans, LA
2021	Analysis of filled naloxone prescriptions before and during the COVID-19 pandemic in the United States Selected oral abstract AcademyHealth Annual Research Meeting, Virtual
2021	Access to buprenorphine: evidence from telehealth waivers during the COVID-19 pandemic Selected oral abstract American Society of Health Economists Annual Meeting, Virtual

2021	Analysis of filled naloxone prescriptions before and during the COVID-19 pandemic in the United States Invited Research Lecture Opioid x COVID RDB Grand Rounds, COVID-19 Research Database, Virtual
2022	Access to Buprenorphine/Naloxone for Postpartum Women with Opioid Use Disorder during the COVID-19 Pandemic Selected oral abstract American Society of Health Economists Annual Meeting, Austin, TX
2022	Access to Buprenorphine/Naloxone for Postpartum Women with Opioid Use Disorder during the COVID-19 Pandemic Selected oral abstract Southern Economic Association Annual Meeting, Fort Lauderdale, FL

International

2021 Real-time machine learning-driven Covid-19 forecasting

Invited Keynote Speaker

Business & Economics Society International Conference, Virtual

Report of Education of Patients and Service to the Community

No presentations below were sponsored by 3rd parties/outside entities

Recognition:

2021	Publicity on <i>npj Digital Medicine</i> manuscript on business risk index	MIT Quest for Intelligence, Siemens Podcast
2021	Publicity on JAMA Health Forum manuscript on naloxone access	NPR, Forbes, US News & World Report, Kaiser Health News, KFF Policy Watch
2021	Publicity on JGIM manuscript on monoclonal antibodies	Vox
2021	Publicity on JAMA Network Open manuscript on COVID-19 at colleges	National Geographic, Freakonomics Radio, WBUR, Inside Higher Ed, US News & World Report
2022	Publicity on JAMA Network Open manuscript on FDA deauthorization of monoclonal antibodies	USA Today, US News & World Report

Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

Research Investigations

Note: underline denotes first or last author or methodologist

 Horng S, Joseph J, Calder S, O'Donoghue A, Safran C, Nathanson L, Leventhal E. Assessment of unintentional duplicate orders by emergency department clinicians before and after implementation of visual aid in the electronic health record ordering system. *JAMA Network Open.* 2019;2(12):e1916499.

- 2. Mitra A, Griesdale D, Haljan G, **O'Donoghue A**, Stevens J. How the high acuity unit changes mortality in the intensive care unit: a retrospective before-and-after study. *Canadian Journal of Anesthesia*. 2020.
- 3. <u>O'Donoghue A</u>, Dechen T, Pavlova W, Boals M, Moussa G, Madan M, Thakkar A, DeFalco F, Stevens J. Reopening businesses and risk of COVID-19 transmission. *npj Digital Medicine*. 2021.
- 4. <u>O'Donoghue A</u>, Biswas N, Dechen T, Anderson T, Talmor N, Punnamaraju A, Stevens J. Analysis of filled naloxone prescriptions before and during the COVID-19 pandemic in the United States. *JAMA Health Forum*. 2021.
- 5. Stevens J, Mechanic O, Markson L, <u>O'Donoghue A</u>, Kimball A. Telehealth use by age and race at a single academic medical center during COVID-19. *Journal of Medical Internet Research*. 2021.
- 6. Tsaneva M, <u>O'Donoghue A</u>. The effect of a large-scale workfare program on child marriage in India. *Oxford Development Studies*. 2021.
- 7. Horng S, O'Donoghue A, Dechen T, Rabesa M, Shammout A, Markson L, Jegadeesan, Tandon M, Stevens J. Secondary use of COVID-19 symptoms incidence among hospital employees as an example of syndromic surveillance of hospital admissions within 7 days. *JAMA Network Open*. 2021. (co-first author)
- 8. Anderson T, <u>O'Donoghue A</u>, Dechen T, Herzig S, Stevens J. Trends in telehealth and in-person transitional care management visits during the COVID-19 pandemic. *Journal of the American Geriatrics Society*. 2021.
- Anderson T, <u>O'Donoghue A</u>, Dechen T, Mechanic O, Stevens J. "Uptake of outpatient monoclonal antibody treatments for COVID-19 in the United States: a cross-sectional analysis," *Journal of General Internal Medicine*. 2021.
- 10. <u>O'Donoghue A</u>. "Association of university student gatherings with community COVID-19 infections before and after the NCAA March Madness Tournament," *JAMA Network Open.* 2021.
- 11. Haber N, Wieten S, Rohrer J, Arah O, Tennant P, Stuart E, Murray E, Pilleron S, Lam S, Riederer E, Howcutt S, Simmons A, Leyrat C, Schoenegger P, Booman A, Dufour M, **O'Donoghue A**, Baglini R, Do S, Takashima M, Evans T, Rodriguez-Molina D, Alsalti T, Dunleavy D, Meyerowitz-Katz G, Antonietti A, Calvache J, Kelson M, Salvia M, Parra C, Khalatbari-Soltani S, McLinden T, Chatton A, Seiler J, Steriu A, Alshihayb T, Twardowski S, Dabravolskaj J, Au E, Hoopsick R, Suresh S, Judd N, Peña S, Axfors C, Khan P, Aguirre A, Odo N, Schmid I, Fox M. "Causal and associational language in observational health research: a systematic evaluation," *American Journal of Epidemiology*, 2022.
- 12. Riviello E, Dechen T, **O'Donoghue A**, Cocchi M, Hayes M, Molina R, Moraco N, Mosenthal A, Rosenblatt M, Talmor N, Walsh D, Sontag D, Stevens J. "Assessment of a crisis standards of care scoring system for resource prioritization and estimated excess mortality by race, ethnicity, and socially vulnerable area during a regional surge in COVID-19," *JAMA Network Open.* 2022.
- 13. Anderson T, <u>O'Donoghue A</u>, Mechanic O, Dechen T, Stevens J. "Administration of anti-SARS-CoV-2 monoclonal antibodies administration following Food and Drug Administration deauthorization," *JAMA Network Open.* 2022.
- 14. Mechanic O, Lee E, Sheehan H, Dechen T, **O'Donoghue A**, Anderson T, Annas C, Harvey L, Perkins A, Severo M, Stevens J, Kimball A. "Evaluation of Telehealth Visit Attendance After Implementation of a Patient Navigator Program," *JAMA Network Open.* 2022.

- 15. <u>O'Donoghue A</u>, White M, Weiss A, Stevens J, Anderson T. "Trends in Medicare Part B spending on discarded drugs, 2017-2020," *JAMA Internal Medicine*. 2022.
- 16. <u>O'Donoghue A</u>, Reichheld A, Anderson T, Zera C, Dechen T, Stevens J. "Decline in prenatal buprenorphine/naloxone fills during the COVID-19 pandemic in the United States," accepted at *Journal of Addiction Medicine*, In Press.

Non-peer reviewed scholarship in print or other media:

Reviews, chapters, monographs and editorials

- 1. Stevens J, Horng S, **O'Donoghue A**, Moravick S, Weiss A. How one Boston hospital built a Covid-19 forecasting system. *Harvard Business Review.* 2020.
- 2. Stevens J, **O'Donoghue A**, Horng S, Tandon M, Tabb K. Healthcare's earthquake: lessons from complex adaptive systems to develop COVID-19 responsive measures and models. *NEJM Catalyst*. 2020.
- 3. **O'Donoghue A**, Dechen T. Reopening businesses during the COVID-19 pandemic: how can we improve measures of human interaction? *npj Digital Medicine Community: Behind the Paper*. March 16, 2021.
- 4. Chawla K, Oriol N, **O'Donoghue A**. "Addressing racial health inequities includes addressing the minimum wage," *The Hill*. April 18, 2021.

Thesis:

1. **O'Donoghue A**. Three Essays in Health Economics. Doctoral Thesis, Department of Economics, Clark University. 2020.

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings:

- 1. Curran C, Eche I, Safrolashrafi M, Elsamadisi P, **O'Donoghue A**, Dechen T, Hayes M, Stevens J. Impact of a pharmacist-driven antibiotic adjustment protocol on vasopressor duration in patients on continuous renal replacement therapy. American Society of Health-System Pharmacists Midyear Clinical Meeting and Exhibition, virtual, December 2020.
- 2. Curran C, Eche I, Hayes M, **O'Donoghue A**, Sadrolashrafi M, Elsamadisi P. Impact of a pharmacist-driven antibiotic adjustment protocol on vasopressor duration in patients on continuous renal replacement therapy. American College of Clinical Pharmacy Virtual Poster Symposium, virtual, May 2021.
- 3. Anderson T, **O'Donoghue A**, Dechen T, Herzig S, Stevens J. Trends in the delivery of transitional care management in the COVID-19 era. AcademyHealth Annual Research Meeting, virtual, June 2021.
- 4. Fernandez L, Shorett P, **O'Donoghue A**, Blair J, Wright S, Markson L, Dechen T, Stevens J. Evaluation of COVID-19 vaccine administration at a large hospital network by race, ethnicity, and language. AcademyHealth Annual Research Meeting, virtual, June 2021.
- 5. Fernandez L, **O'Donoghue A**, Shorett P, Blair J, Markson L, Dechen T, Stevens J, Wright S. Prioritized access to COVID-19 vaccines among vulnerable communities increases vaccination rates. IDWeek, virtual, September 2021.
- 6. Theodore M, Dechen T, **O'Donoghue A**, Stevens J. Timing of code status discussion in patients with cancer admitted to the intensive care unit. American Thoracic Society, San Francisco, CA, May 2022.

- 7. Dechen T, <u>O'Donoghue A</u>, Anderson T, Talmor N, Annas C, Stevens J. Disparities in second-dose completion of COVID-19 vaccines. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- 8. Reichheld A, Stevens J, **O'Donoghue A**. Heterogeneity in postpartum buprenorphine/naloxone fills following postpartum Medicaid expansion during the COVID-19 pandemic. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- Reichheld A, O'Donoghue A, Verma N, Dutton C, Stevens J, Luo E. Decline in surgical abortions during the COVID-19 pandemic in the United States. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- 10. Lee E, Sheehan H, Dechen T, **O'Donoghue A**, Anderson T, Punnamaraju A, Annas C, Harvey L, Luo E, Perkins A, Severo M, Brockmeyer D, Kimball A, Stevens J, Mechanic O. Telehealth navigator program improves virtual video appointment attendance. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- 11. Mechanic O, Sheehan H, Harvey L, **O'Donoghue A**, Anderson T, Perkins A, Severo M, Luo E, Stevens J, Kimball A. Return on investment: the value of a telehealth navigator. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- 12. Anderson T, **O'Donoghue A**, Mechanic O, Dechen T, Stevens J. Administration of anti-SARS-CoV-2 monoclonal antibodies following Food and Drug Administration deauthorization. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
- 13. Haber N, Wieten S, Rohrer J, Arah O, Tennant P, Stuart E, Murray E, Pilleron S, Lam S, Riederer E, Howcutt S, Simmons A, Leyrat C, Schoenegger P, Booman A, Dufour M, O'Donoghue A, Baglini R, Do S, Takashima M, Evans T, Rodriguez-Molina D, Alsalti T, Dunleavy D, Meyerowitz-Katz G, Antonietti A, Calvache J, Kelson M, Salvia M, Parra C, Khalatbari-Soltani S, McLinden T, Chatton A, Seiler J, Steriu A, Alshihayb T, Twardowski S, Dabravolskaj J, Au E, Hoopsick R, Suresh S, Judd N, Peña S, Axfors C, Khan P, Aguirre A, Odo N, Schmid I, Fox M. Causal and associational language in observational health research: a systematic evaluation. Society for Epidemiologic Research Meeting, Chicago, IL, June 2022.
- 14. Haber N, Wieten S, Rohrer J, Arah O, Tennant P, Stuart E, Murray E, Pilleron S, Lam S, Riederer E, Howcutt S, Simmons A, Leyrat C, Schoenegger P, Booman A, Dufour M, **O'Donoghue A**, Baglini R, Do S, Takashima M, Evans T, Rodriguez-Molina D, Alsalti T, Dunleavy D, Meyerowitz-Katz G, Antonietti A, Calvache J, Kelson M, Salvia M, Parra C, Khalatbari-Soltani S, McLinden T, Chatton A, Seiler J, Steriu A, Alshihayb T, Twardowski S, Dabravolskaj J, Au E, Hoopsick R, Suresh S, Judd N, Peña S, Axfors C, Khan P, Aguirre A, Odo N, Schmid I, Fox M. Causal and associational language in observational health research: a systematic evaluation. Society for Social Medicine & Population Health Annual Scientific Meeting, Exeter, UK, September 2022.
- 15. Haber N, Wieten S, Rohrer J, Arah O, Tennant P, Stuart E, Murray E, Pilleron S, Lam S, Riederer E, Howcutt S, Simmons A, Leyrat C, Schoenegger P, Booman A, Dufour M, O'Donoghue A, Baglini R, Do S, Takashima M, Evans T, Rodriguez-Molina D, Alsalti T, Dunleavy D, Meyerowitz-Katz G, Antonietti A, Calvache J, Kelson M, Salvia M, Parra C, Khalatbari-Soltani S, McLinden T, Chatton A, Seiler J, Steriu A, Alshihayb T, Twardowski S, Dabravolskaj J, Au E, Hoopsick R, Suresh S, Judd N, Peña S, Axfors C, Khan P, Aguirre A, Odo N, Schmid I, Fox M. Causal and associational language in observational health research: a systematic evaluation. Meta-Research Innovation Center at Stanford (METRICS) International Forum, virtual, May 2022.
- 16. Haber N, Wieten S, Rohrer J, Arah O, Tennant P, Stuart E, Murray E, Pilleron S, Lam S, Riederer E, Howcutt S, Simmons A, Leyrat C, Schoenegger P, Booman A, Dufour M, **O'Donoghue A**, Baglini R, Do S, Takashima M, Evans T, Rodriguez-Molina D, Alsalti T, Dunleavy D, Meyerowitz-Katz G, Antonietti A, Calvache J, Kelson M, Salvia M, Parra C, Khalatbari-Soltani S, McLinden T, Chatton A, Seiler J, Steriu A, Alshihayb T, Twardowski S, Dabravolskaj J, Au E, Hoopsick R, Suresh S, Judd N,

- Peña S, Axfors C, Khan P, Aguirre A, Odo N, Schmid I, Fox M. Causal and associational language in observational health research: a systematic evaluation. 22nd Conference of the International Society of Geriatric Oncology, Geneva, Switzerland, October 2022.
- 17. Curran C, Eche I, Safrolashrafi M, Elsamadisi P, **O'Donoghue A**, Dechen T, Hayes M, Stevens J. Impact of apharmacist-driven antimicrobial dosing on time to shock resolution during CRRT. Society of Critical Care Medicine 2023 Critical Care Congress, San Francisco, CA, January 2023.