

# Ashley L. O'Donoghue, PhD

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Center for Healthcare Delivery Science  
Beth Israel Deaconess Medical Center  
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## EDUCATION

2020	Ph.D.	Economics <i>Field: Applied Econometrics</i>	Clark University
2017	M.A.	Economics	Clark University
2015	B.A.	Economics and Mathematics <i>magna cum laude</i>	Assumption College

## RESEARCH EXPERIENCE

2020 –	<b>Economist</b> , Center for Healthcare Delivery Science Beth Israel Deaconess Medical Center
2018 – 2020	<b>Pre-Doctoral Research Fellow</b> , Center for Healthcare Delivery Science Beth Israel Deaconess Medical Center
2016 – 2018	<b>Summer Research Assistant</b> , Department of Economics Clark University
2014 – 2015	<b>Research Intern</b> Worcester Regional Research Bureau

## FUNDING

2020 – 2022	Quantifying secondary health impacts of COVID-19 Google.org Co-investigator (PI: Jennifer Stevens) <i>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.</i>
2018 – 2021	A new approach to patient safety: identifying risky clinical states to reduce preventable harms for hospitalized patients Doris Duke Charitable Foundation Collaborator (PI: Jennifer Stevens) <i>Our proposal developed and refined a tool to quantify the level of risk of preventable patient harms in intensive care units, prospectively validated this tool, and spread this tool to a new clinical environment.</i>

## PEER-REVIEWED PUBLICATIONS

1. **O'Donoghue A**, 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.
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-after study," *Canadian Journal of Anesthesia*. 2020.
3. Horng S, Joseph J, Calder S, Stevens J, **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.

## NON-PEER-REVIEWED PUBLICATIONS

4. **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.
5. 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*. October 23, 2020.
6. Stevens J, Horng S, **O'Donoghue A**, Moravick S, Weiss A. "How one Boston hospital built a covid-19 forecasting system," *Harvard Business Review*. June 29, 2020.

## HONORS AND AWARDS

2020	Lead, first place team, MIT COVID-19 Challenge Datathon	MIT
2019	Outstanding Teaching Assistant of the Year Award	Clark University
2018	Department of Economics' departmental teaching assistant recognition	Clark University
2017	Department of Economics' departmental teaching assistant recognition	Clark University
2015	Ph.D. Full Tuition Scholarship	Clark University
2014	Conference Travel Award	Assumption College
2014	Omicron Delta Epsilon Economics Honor Society	Assumption College
2014	Kappa Mu Epsilon Mathematics Honor Society	Assumption College
2011	Undergraduate Partial Tuition Scholarship	Assumption College
2011 – 2014	Dean's List	Assumption College

## PROFESSIONAL SERVICE

### AD-HOC REVIEWER

*JAMA Network Open*  
*npj Digital Medicine*

## CONFERENCES

2021	American Society of Health Economists Annual Conference	Scientific Review Committee
2020	American Society of Health Economists Annual Conference	Scientific Review Committee
2020	Southern Economic Association Annual Meeting	Session Chair
2020	Southern Economic Association Annual Meeting	Session Organizer
2020	Southern Economic Association Annual Meeting	Discussant
2020	Eastern Economic Association Annual Meeting	Discussant
2019	Southern Economic Association Annual Meeting	Discussant

## INVITED PRESENTATIONS AND POSTERS (including scheduled)

### LOCAL

2020	"The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals" Center for Healthcare Delivery Science Grand Rounds Beth Israel Deaconess Medical Center, Boston, MA
2020	"Reopening businesses and risk of COVID-19 transmission" Center for Healthcare Delivery Science Work-in-Progress Seminar Beth Israel Deaconess Medical Center, Boston, MA
2020	"Real-time ML-driven COVID-19 forecasting" Department of Healthcare Quality Seminar Beth Israel Deaconess Medical Center, Boston, MA
2020	"Real-time ML-driven COVID-19 forecasting" Center for Healthcare Delivery Science Work-in-Progress Seminar Beth Israel Deaconess Medical Center, Boston, MA
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, Boston, MA

### REGIONAL

2020	"Real-time ML-drive COVID-19 forecasting" Massachusetts Health Data Consortium Webinar
2019	"The effect of naloxone access on opioid-related mortality" Economics Seminar Series Fitchburg State University, Fitchburg, MA
2019	"The effect of naloxone access on opioid-related mortality" 17 <sup>th</sup> Multidisciplinary Conference Clark University, Worcester, MA
2019	"The effect of a large-scale workfare program on child marriage in India" 17 <sup>th</sup> Multidisciplinary Conference

	Clark University, Worcester, MA
2018	"Effective Strategies for Teaching Assistants" University-Wide Teaching Assistant Orientation Clark University, Worcester, MA
2017	"Effective Strategies for Teaching Assistants" University-Wide Teaching Assistant Orientation Clark University, Worcester, MA
<b>NATIONAL</b>	
2021	"Analysis of filled naloxone prescriptions before and during the COVID-19 pandemic in the United States" AcademyHealth Annual Research Meeting, virtual
2020	"The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals" Southern Economic Association Annual Meeting, New Orleans, LA (virtual)
2020	"The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals" AcademyHealth Annual Research Meeting, Boston, MA (virtual)
2020	"The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals" American Society of Health Economists' Annual Conference, St. Louis, MO*
2020	"The effect of the Medicaid expansion on opioid prescribing rates and drug-related foster care removals" Eastern Economic Association Annual Meeting, Boston, MA
2019	"The effect of a large-scale workfare program on child marriage in India" Southern Economic Association Annual Meeting, Fort Lauderdale, FL
2019	"The effect of a large-scale workfare program on child marriage in India" IUSSP Population, Poverty and Inequality Research Conference, Ann Arbor, MI

#### **INTERNATIONAL**

2014	"The non-linear impact of family income on child educational outcomes" Business and Economics Society International Annual Meeting, Florence, Italy
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\* scheduled to present, but conference cancelled due to COVID-19 pandemic

#### **TEACHING EXPERIENCE**

<b>Instructor, Department of Economics, Clark University</b>		
Fall 2019	Economics & the World Economy	4.9/5.0
Fall 2018	Economics & the World Economy	4.8/5.0
<b>Teaching Assistant, Department of Economics, Clark University</b>		
Spring 2019	Economics & the World Economy	4.9/5.0
Spring 2018	Introduction to Statistics	4.8/5.0
Fall 2017	Economics & the World Economy	4.8/5.0

Spring 2017	Introduction to Statistics	4.8/5.0
Fall 2016	Introduction to Statistics	4.9/5.0
Spring 2016	Economics & the World Economy	4.6/5.0
Fall 2015	Economics & the World Economy	4.5/5.0

## PROFESSIONAL SOCIETIES

2020 –	American Economic Association	Member
2020 –	AcademyHealth	Member
2020 –	International Health Economics Association (iHEA)	Member
2020 –	iHEA Early Career Researchers Special Interest Group	Member
2019 –	American Society of Health Economists	Member
2019 –	Midwest Economic Association	Member
2019 –	Southern Economic Association	Member
2018 –	International Union for the Scientific Study of Population	Member

## PROFESSIONAL DEVELOPMENT

2020	Machine Learning: Hands-On Python in Data Science	Udemy
2019	Machine Learning Course, Stanford University	Coursera
2019	Applied Data Science in Python Specialization Certificate, IBM	Coursera
2018	Seminar in College Teaching Course	HECCMA
2016	Project TIER (Teaching Integrity in Empirical Research) Workshop	Clark University

## SELECTED MEDIA

*Becker's Hospital Review*, "Beth Israel Deaconess researchers create tool to assess safety of reopening businesses."

*MedicalXpress*, "Researchers model a safe new normal."

*VTDigger*, "Study: High-risk behavior dropped more in Vermont than in nearby states."

*PolitiFact*, "The Sturgis Motorcycle Rally's impact on the coronavirus, explained."

*Inverse*, "What the Sturgis superspreader report actually says about COVID-19."

*Becker's Hospital Review*, "The predictive analytics tools hospitals are using to forecast COVID-19 case surges."

*The Future Car: A Siemens Podcast* "Modeling, economists and predicting the new normal."

*MIT Quest for Intelligence* "What is the covid-19 data tsunami telling policymakers?"

*AI in Healthcare*, "4 takeaways from a Harvard hospital's homegrown COVID forecasting."

*Becker's Hospital Review*, "How Beth Israel Deaconess Medical Center predicted COVID-19 surges 5 days before national models."

*Fox Business*, "Coronavirus 'super-spreaders' named as restaurants, fast food and hotels."

*Becker's Hospital Review*, "Study: Visual aids in EHRs cut nearly 50% of unintentional duplicate lab tests."