

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

Date Prepared: March 8, 2023
Name: Laura Anne Hatfield
Office Address: 180 Longwood Ave, Boston, MA 02115
Work Phone: 617-432-0006
Work Email: hatfield@hcp.med.harvard.edu

Education

05/2003	BS	Genetics	Iowa State University, Ames, IA
12/2008	MS	Biostatistics	University of Minnesota, Minneapolis, MN
05/2011	PhD	Biostatistics	University of Minnesota, Minneapolis, MN

Faculty Academic Appointments

2011-17	Assistant Professor	Health Care Policy	Harvard Medical School
2017-	Associate Professor	Health Care Policy	Harvard Medical School

Faculty Membership in Harvard Initiatives, Programs, Centers, and Institutes

2015-	Faculty Member	Health Policy PhD Program	Harvard University
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Other Professional Positions

2003-05	Research Assistant	Johns Hopkins Medical School	
2005-11	Research Assistant	University of Minnesota School of Public Health	
2017-19	Consultant	Beth Israel Deaconess Medical Center	
2017-19	Consultant	Cambridge Health Alliance	
2019	Consultant	GMA	
2019	Consultant	Laura and John Arnold Foundation	
2019-	Consultant	Mathematica Policy Research	3 hrs/month
2020-	Consultant	Blue Cross and Blue Shield of Massachusetts, Inc.	1 hr/month

Committee Service

Local

2015-	Committee on Higher Degrees in Health Policy	Harvard University
	2015-	Member
2016-17	Curriculum Development Board, Essentials of Medicine Part I	Harvard Medical School
	2016-17	Member
2016	Junior Faculty Search Committee	Department of Health Care Policy
	2016	Member
2020-	Executive Committee	Harvard PhD Program in Health Policy
	2020-	Member
2021-	Faculty Council	Harvard Medical School/Harvard School of Dental Medicine
	2021-	Member

National

2016-19	Conflict of Interest Mitigation Panel	RAND Evaluation of Coverage to Care
	2016-19	Member
2017-18	Technical Advisory Panel	Urban Institute Program on Retirement Policy
	2017-18	Member

Professional Societies

2009-	American Statistical Association	
	2009-22	Member, Section on Bayesian Statistical Science
	2009-10	Member, Twin Cities Chapter
	2010-22	Member, Biopharmaceutical Section
	2011-	Member, Health Policy Statistics Section (HPSS)
	2013-22	Member, Boston Chapter, Biometrics Section
	2014-15	Secretary, HPSS
	2014	Member, Scientific Organizing Committee, International Conference on Health Policy Statistics (ICHPS) 2015
	2014-22	Member, Section on Medical Devices and Diagnostics
	2017	Member, Outreach Committee, ICHPS 2018
	2018-22	Member, Committee of Presidents of Statistical Societies (COPSS) Florence N. David Award Committee
	2018-19	Reviewer, HPSS Student Paper Awards
	2019	Chair, Awards Committee, ICHPS 2020
	2019	Chair-elect, HPSS
	2020	Chair, HPSS

	2021-22	ENAR Representative, Program Committee, Joint Statistical Meetings (JSM) 2022
	2021	Past Chair, HPSS
	2021-	Member, Lester R. Curtin Award Committee
2009-	International Biometric Society, Eastern North American Region (ENAR)	
	2015-16	Associate Chair, Program Committee
	2018-20	Member, Regional Committee (RECOM)
2010-18	International Society of Bayesian Analysis	Member
2019-20	International Society for Pharmacoeconomics and Outcomes Research	Member
	2020	Co-Chair, Research Review Committee, ISPOR 2020
2011-13	International Statistics Institute	Member
2012-18	Institute of Mathematical Statistics	Member
2016-17, 22-	AcademyHealth	Member
2021-	Society for Causal Inference	Member
	2023-	Member, Equity & Inclusion Committee

Grant Review Activities

2014	Ad Hoc External Peer Reviewer	Medical Research Council, UK
2017	Biobehavioral and Behavioral Processes Special Emphasis Panel	National Institutes of Health
	2017	Member
2018	Ad Hoc External Peer Reviewer	National Science Foundation
2018-20	Ad Hoc External Peer Reviewer	Economic and Social Research Council, UK
2019	Healthcare Systems and Values Research Special Emphasis Panel	Agency for Healthcare Research and Quality
	2019	Member
2019-	Greater Value Portfolio Advisory Committee	Donaghue Medical Research Foundation
	2019-	Member
2021	Mechanism for Time-Sensitive Drug Abuse Research (R21) Special Emphasis Panel	National Institute on Drug Abuse (NIDA)
	2021	Member

Editorial Activities

- **Ad hoc Reviewer**

Annals of Applied Statistics
 Annals of Internal Medicine
 Biostatistics
 BMC Medical Research Methodology
 Computational Statistics and Data Analysis
 Circulation: Cardiovascular Genetics
 Circulation: Cardiovascular Quality and Outcomes
 Epidemiology
 Health Affairs
 Health and Quality of Life Outcomes
 Health Services and Outcomes Research Methodology
 Health Services Research
 JAMA Internal Medicine
 JAMA Network Open
 Journal of General Internal Medicine
 Journal of Health Economics
 Journal of the American Statistical Association
 Journal of the Royal Statistical Society
 Medical Care
 Medical Decision Making
 Naval Research Logistics
 Pharmacoepidemiology and Drug Safety
 Quality of Life Research
 Statistics and Public Policy
 Statistics in Medicine
 Women's Health Issues

- **Other Editorial Roles**

2013-15	Editorial Board	Medical Decision Making
2020-22	Statistical Reviewer	JAMA Network Open
2022-	Editorial Board	Health Services Research

Honors and Prizes

2005	Dean's Scholar	University of Minnesota School of Public Health
2009	Outstanding Teaching Assistant Award	Division of Biostatistics, University of Minnesota School of Public Health

2010	James R. Boen Award	Division of Biostatistics, University of Minnesota School of Public Health	Achievements in applied biostatistics
2010	Student Paper Award	Section on Bayesian Statistical Science, American Statistical Association	Research on Bayesian methodology
2010-11	Doctoral Dissertation Fellowship	University of Minnesota Graduate School	
2011	Young Investigator Travel Award	Institute of Mathematical Statistics and International Society of Bayesian Analysis (ISBA)	To attend the International Society of Bayesian Analysis (ISBA) Annual Meeting
2011	Student Travel Award	University of Texas MD Anderson Cancer Center	To attend the Bayesian Biostatistics Conference
2011	Student Travel Award	American Statistical Association	To attend the International Statistics Institute World Congress
2011	Jacob E. Bearman Award	Division of Biostatistics, University of Minnesota School of Public Health	Outstanding academic and professional achievement
2015, 16	Top Reviewer	Pharmacoepidemiology and Drug Safety	Quality and timeliness among best of all reviews
2016	Finalist, Annual Research Award	National Institute for Health Care Management Foundation	For McWilliams, Hatfield, et al. 2016 NEJM (below)
2018	Award for Excellence in Methodology	International Society for Pharmacoeconomics and Outcomes Research	For Hatfield et al. 2017 Med Decis Making (below)
2019, 21	Outstanding Reviewer	Health Services Research (HSR)	Top 5% of reviewers
2022	James F. Burgess Methods Article of the Year Award	Health Services Research (HSR)	For Fry and Hatfield (2021)
2023	Mid-Career Achievement Award	Health Policy Statistics Section, American Statistical Association	Leaders in health care policy and health services research who have made outstanding contributions through methodological or applied work

Report of Funded and Unfunded Projects

Past

2009-14 Income Effects and Current Law Forecasts of Health Care Spending Growth
National Institute on Aging R01AG034417
Co-Investigator (PI: Michael Chernew)

- Forecast health care spending using a microsimulation model of Medicare spending focusing on cost sharing and financing rules
- 2011-14 The Medical Device Epidemiology Network (MDEpiNet) Methodology Center
Chickasaw Nation Industries/FDA Contract HHSF223201110172C
Co-Investigator (PI: Sharon-Lise Normand)
Develop and apply novel statistical and epidemiological methods to monitoring the safety and effectiveness of medical devices
- 2014 Durata and Riata ST Optim ICD Lead Independent Multicenter Study
Minneapolis Heart Institute Foundation
PI; \$26,440
Examine failure modes and longevity of implantable cardioverter-defibrillator leads
- 2015-16 Harvard Integrated Program to Protect and Improve the Health of NFLPA Members
NFL Players Association
Co-Investigator (PI: Lee Nadler)
Create effective risk communication strategies that inform and empower individual athletes to make informed autonomous decisions related to beginning, continuing, or ceasing football participation
- 2015-17 Comparative Effectiveness of Treatment Regimens in Lung Cancer
National Cancer Institute R21AG047175
Co-Investigator (PI: Haiden Huskamp)
Compare the survival and health care utilization of elderly individuals with extensive-stage small cell lung cancer treated with two different chemotherapy regimens
- 2013-17 The MDEpiNet Medical Counter Measures Study
US Food & Drug Administration U01FD004493
Co-Investigator (PI: Sharon-Lise Normand)
Advance statistical and epidemiological methods to improve our understanding of the safety and effectiveness of medical countermeasure-related devices
- 2013-17 Evaluating a Tiered Hospital Network
CareFirst
Co-Investigator (PI: Michael Chernew)
Comprehensively evaluate CareFirst's Patient-Centered Medical Home (PCMH) model
- 2014-17 Impact of Price Transparency on Utilization and Spending
Health Care Markets and Regulation Lab / Arnold Foundation
Co-Investigator (PI: Ateev Mehrotra)
Estimate the impact of offering a price transparency tool to a health plan enrollee by analyzing health care cost and utilization data from a national database of commercial claims
- 2014-17 An Intervention to Manage Acute Changes in Home Care Patients
Health Care Markets and Regulation Lab / Arnold Foundation
Co-Investigator (PI: David Grabowski)

- Evaluate the Intervention in Home Care to Improve Health Outcomes (In-Home), a telephone checklist that allows home care caregivers to assess acute changes in a patient's physical or cognitive status
- 2015-17 The Impact of Castlight's Price Transparency Tool on Utilization
CalPERS
Co-Investigator (PI: Ateev Mehrotra)
Examine whether use of the Castlight price-transparency tool is associated with a decrease in health care costs and greater use of higher-quality physicians and facilities
- 2016-18 Impact of Maryland's Hospital Global Budgets on Utilization, Quality, and Spending
The Commonwealth Fund 20160555
Co-Investigator (PI: Ateev Mehrotra)
Examine the Maryland hospital global budget program effects on hospitalizations and readmissions, spending, inpatient and ambulatory care quality, and unintended provider behaviors
- 2016-18 Constructing U.S. Life Tables by Educational Status, 1990-2011
National Institute on Aging R03AG050902
Co-Investigator (PI: David Cutler)
Combining vital statistics and survey to estimate mortality by age, sex, race, and educational attainment
- 2015-19 Behavioral Economics and Improving Chemotherapy Decisions for Advanced Cancer
National Cancer Institute K24CA181510
Co-Investigator (PI: Nancy Keating)
Develop and implement a new chemotherapy consent form, and assess if use of this consent form can increase advanced cancer patients' understanding of the goals of chemotherapy
- 2015-20 Medicare in a Restructured Delivery System
National Institute of Aging P01AG032952
Co-Investigator (PI: Joseph Newhouse)
Analyses of accountable care organizations, Medicare Advantage, and beneficiary and provider payment policy, including methodological developments for quasi-experimental causal inference
- 2017-20 Health Care Markets and Regulation Lab
Laura and John Arnold Foundation
Co-PI, Methods Core (Overall PI: Michael Chernew)
Provide practical, statistically valid, and causally appropriate approaches to health services researchers engaged in evaluation studies, including improved tests for the key assumptions of diff-in-diff and new methods for control group selection in hierarchical settings
- 2017-19 Using Telemedicine to Reduce Hospital Transfers
Donaghue Foundation
Principal Investigator (\$114,337)

- Evaluating effect of telemedicine access on ED visits for residents of independent senior living communities
- 2015-21 Effects of expanded coverage on access, health care and health in the South
National Cancer Institute R01CA189152
Co-Investigator (Co-PIs: John Graves, Michael McWilliams)
Analyze effect of health insurance coverage expansions on health care use and outcomes among a cohort of low-income adults in 12 southeastern states using quasi-experimental methods
- 2017-22 Consumer Assessment of Healthcare Providers and Systems CAHPS V
Yale University (u/d AHRQ) GR101547
Co-Investigator (PI: Alan Zaslavsky)
Provide statistical advice on design and analysis of CAHPS instruments, field tests and implementations
- 2020-25 National implementation of Medicare Advantage and prescription drug plan CAHPS surveys
RAND Corporation (u/d CMS) 9920120015
Co-Investigator (PI: Alan Zaslavsky)
Analyses of survey results and preparation of Medicare CAHPS measures
- Current**
- 2019-24 Comparing hospitalization rates, outcomes, and treatment intensity for elderly patients across OECD countries
National Institute of Aging R01AG058878
Co-Investigator (Co-PIs: Bruce Landon / Peter Cram)
Compare treatment for older adults from five OECD countries (US, Canada, Netherlands, Israel and England) hospitalized with one of 5 conditions: hip fracture (HF), acute myocardial infarction (AMI); ischemic stroke, elective aortic aneurysm repair (AAA), and congestive heart failure (CHF)
- 2021-24 Improving Medicare in an era of change
National Institute of Aging P01AG032952
Core PI (Co-PIs: Bruce Landon / Michael McWilliams)
Supply foundational insights for designing payment systems in healthcare by studying performance of MA and TM, strategies employed by MA plans, state Medicaid programs; and experiences of Medicare patients with dementia
- 2022-27 Examining payment and delivery model impacts on health equity using novel quasi-experimental causal inference methods
Agency for Healthcare Research and Quality R01HS028985
Principal Investigator (\$1,188,589 total direct costs)
Develop and apply novel quasi-experimental methods to estimate impacts of the Comprehensive Primary Care Plus model on health care and health equity for Black Medicare beneficiaries
- 2020-23 Health Care Markets and Regulation Lab
Laura and John Arnold Foundation 20-04402

Co-Investigator (PI: Mike Chernew)

Provide the critical evidence, analyses, and tools necessary to support private and public sector innovations that promote high quality health care at a sustainable cost, including evaluations to provide critical evidence related to policy actions.

Projects Submitted for Funding

Submitted Workforce and financing policy effects on people living with AD/ADRD in the community
National Institute on Aging R01AG080630
PI (\$2,068,745 direct costs requested)
Develop and apply new quasi-experimental inference methods to quantify the impacts of financing and workforce policies on home and community-based services for people living with AD/ADRD in the community

Training Grants and Mentored Trainee Grants

2017-18 The impact of resource constraints on provider behavior and health outcomes in childbirth
AHRQ R36HS024898
Mentor of Katherine Donato (PI)
Tests how resource availability affects the clinical decision to expedite childbirth by performing a cesarean delivery (C-section) on low-risk mothers

2016-21 A multi-stakeholder examination of the drivers and value of inpatient consultation
AHRQ K08HS024288
Mentor of Jennifer Stevens (PI)
Investigate non-clinical drivers of variation in the use of inpatient consultation and quantify the impact of consultation on patient outcomes and costs

2020 Expanding the reach of palliative care: Engaging caregivers through policies and practice
Cambia Health Foundation Sojourn Scholars Program
Mentor of Tamryn Gray (PI)
Use natural language processing applied to electronic health record data to evaluate the CARE Act implementation and study patient and caregiver experiences

Report of Local Teaching and Training

Teaching of Students in Courses

2012-16	Harvard Health Economics Seminar Graduate students, fellows	Harvard University 2, 2-hr sessions
2014-19	Methods Seminar Graduate students, fellows	Department of Health Care Policy 7, 1-hr sessions
2014-	Graduate Reading Course: Evaluative Science and Statistics (HLTHPOL 3080) Graduate students	Harvard University 3, 2-hr sessions
2015	Health Care Policy (HC 750)	Harvard Medical School

2015-	1st-year medical students Research Seminar in Health Policy (HLTHPOL 3040)	8, 1-hr sessions Harvard University
2017-19, '21, '23	Health Policy PhD students Health Policy, Essentials of the Profession, Part I	1-hr sessions each week Harvard Medical School
2017-	1st-year medical students Qualifying exam prep sessions	8, 1-hr tutorials Harvard University
2020	Health Policy PhD students Design of Experimental and Non-experimental Studies	4, 1-hr tutorials Harvard University
2021-	Graduate students Core Course in Health Policy (HLTHPOL 2000A/B)	1-hour lecture Harvard University
	Graduate students	3, 1.75-hr sessions

Research Supervisory and Training Responsibilities

2016-	Faculty Co-Director Graduate students and postdoctoral fellows	Health Policy Data Science Lab Weekly, hour-long 1:1 meetings with individual trainees plus monthly group meetings and other events
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Formally Mentored Harvard Students (Medical, Dental, Graduate, and Undergraduate)

2015-18	Christine Baugh, Harvard Health Policy PhD 2018 Supervised dissertation research and co-authored three manuscripts on risks, benefits, and decision-making in sports. Now Assistant Professor at University of Colorado.
2015-18	Jamie Daw, Harvard Health Policy PhD 2018 Supervised dissertation research and co-authored two papers. Now Assistant Professor at Columbia University. Winner, 2019 Outstanding Dissertation Award from AcademyHealth.
2016-18	Jeanne Fugelsten Biniek, Harvard Health Policy PhD 2018 Supervised dissertation research in provider responses to information shocks and use of new medical technologies. Now Senior Policy Analyst at KFF.
2016-20	Kate Lofgren, Harvard Health Policy PhD 2020 Supervised dissertation research in value-of-information approaches to evaluating heterogeneous treatment effects and proxy outcome measures. Now Senior Decision Scientist at Foundation Medicine.
2017-21	Alyssa Bilinski, Harvard Health Policy PhD 2021 Supervised dissertation research on assessing assumptions of difference-in-difference studies. Now Assistant Professor at Brown University.
2017-22	Rebecca Gourevitch, Harvard Health Policy PhD 2022

Supervised dissertation research in adequacy of prenatal care and quasi-experimental evaluation of federally qualified health centers. Now Assistant Professor at University of Maryland, College Park.

2019-20 Carrie Fry, Harvard Health Policy PhD 2020

Supervised dissertation research in causal assumptions for comparative interrupted time series versus difference-in-differences. Now Assistant Professor at Vanderbilt.

2020- Jason Buxbaum, Harvard Health Policy PhD 2024 (anticipated)

Advising dissertation research on quasi-experimental methods for estimating the impact of insurance mergers on hospital costs. Member of dissertation committee.

2022- Summer Rak, Harvard Health Policy PhD 2024 (anticipated)

Advising dissertation research on the optimal level of time aggregation for controlled pre/post methods of conducting quasi-experimental inference and on the impact of benefit distribution timing on health outcomes. Chair of dissertation committee.

2023- Katherine Ianni, Harvard Health Policy PhD 2025 (anticipated)

Advising dissertation research on new causal target estimands for health equity evaluations using difference-in-differences methods. Member of dissertation committee.

Other Mentored Trainees and Faculty

2015-17 Megan Schuler, PhD, MS / Policy Researcher, RAND

Career stage: postdoc (Marshall J. Seidman Fellow in Health Care Policy). *Mentoring role:* research advisor. *Accomplishments:* published three peer-reviewed manuscripts

2016-17 Nina Joyce, PhD, MPH / Assistant Professor of Epidemiology, Brown University

Career stage: postdoc (NIMH Postdoctoral Fellow). *Mentoring role:* research advisor. *Accomplishments:* published two peer-reviewed manuscripts

2016-17 Robbert Zusterzeel, MPH / Senior Director of Regulatory Science and Strategy, IQVIA

Career stage: MPH student. *Mentoring role:* advised practicum. *Accomplishments:* published peer-reviewed manuscript

2017-19 Christoph Kurz, PhD / Researcher, LMU Munich

Career stage: doctoral student (visiting). *Mentoring role:* research advisor. *Accomplishments:* published peer-reviewed manuscript

2018-19 Christine Baugh, PhD, MPH / Assistant Professor, CU Anschutz

Career stage: postdoc (NIMH Postdoctoral Fellow) *Mentoring role:* research advisor. *Accomplishments:* published two peer-reviewed manuscripts

2018-20 Bret Zeldow, PhD / Assistant Professor of Statistics, Colby College

Career stage: postdoc. *Mentoring role:* research advisor. *Accomplishments:* published peer-reviewed manuscript, didactic website (diff.healthpolicydatascience.org)

2021- Alina Denham, PhD / Postdoctoral Fellow, HMS

Career stage: postdoc. *Mentoring role:* research advisor. *Accomplishments:* presented at AcademyHealth

2021- Thomas Leavitt, PhD / Assistant Professor (on leave), Baruch College

Career stage: postdoc. *Mentoring role:* research advisor. *Accomplishments:* presented at American Causal Inference Conference

Formal Teaching of Peers (e.g., CME and other continuing education courses)

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

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

2015-19	Methods Toolkit: Health Services, Outcomes Research, and Policy Analysis T3/T4 Research: Translating Effective Interventions into Practice (Harvard Catalyst)	1-hr session Boston, MA
2018	Machine Learning and Bayesian Approaches for Data Science in Medicine (Harvard Catalyst)	6-hour course (co-instructor) Boston, MA
2023	A Practical Course in Difference-in-Differences (Harvard Catalyst)	4-hour course Online

Local Invited Presentations

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

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

2011	Bayesian hierarchical joint modeling for longitudinal and survival data / Invited seminar Department of Biostatistics, Harvard School of Public Health
2012	Comparing block Kronecker and unstructured covariance matrix estimation in a hierarchical model for health care quality / Invited seminar Department of Statistics, Harvard University
2013	Statistical properties and health policy applications of microsimulation / Invited seminar Applied Statistics Workshop, Institute for Quantitative Social Science, Harvard University
2014	Tailoring treatment information using personal characteristics and health outcome preferences/ Invited seminar Dana Farber / Harvard Cancer Center Health Outcomes Research Seminar
2016	Learning in Bayesian hierarchical joint models for longitudinal and survival data / Guest lecture Applied Bayesian Analysis (BST 228), Harvard T.H. Chan School of Public Health
2016	Incorporating decision-maker loss functions in safety monitoring / Invited seminar Harvard/MIT Econometrics seminar, Cambridge, MA

- 2018 Reproducibility and Open Science / Invited seminar (co-presenter)
Dana Farber/Harvard Cancer Center Outcomes Research Seminar, Boston, MA
- 2018 Methods for difference-in-differences studies / Invited seminar
Beth Israel Deaconess Medical Center Richard A. and Susan F. Smith Center for
Outcomes Research in Cardiology, Boston, MA
- 2018 Methods for difference-in-differences studies / Invited seminar
Healthcare Markets and Regulations Lab Governance Board Meeting, Boston, MA
- 2023 Adaptive metrics for an evolving pandemic / Invited seminar
Institute for Quantitative Social Sciences, Applied Statistics Workshop, Cambridge,
MA
- 2023 Discussion of “When should you adjust standard errors for clustering?” by Alberto
Abadie / Invited discussant
Harvard Causal Seminar, Harvard Data Science Initiative, Cambridge, MA

Report of Regional, National and International Invited Teaching and Presentations

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

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

Regional

- 2011 Bayesian adaptive methods for clinical trials / Invited 2-day short course
Yale Center for Analytical Sciences, Yale School of Public Health, New Haven, CT
- 2012 Learning and information in Bayesian joint models for longitudinal and survival data /
Invited seminar
Center for Statistical Sciences, Brown University, Providence, RI
- 2012 Comparing block Kronecker and unstructured covariance matrix estimation in a
hierarchical model for health care quality / Contributed presentation
New England Statistics Symposium, Boston University, Boston, MA
- 2012 Learning and information in Bayesian joint models for longitudinal and survival data /
Invited seminar
Department of Statistics, University of Connecticut, Storrs, CT
- 2015 Incorporating regulator loss functions for safety signal escalation / Invited seminar
Department of Biomedical Data Science, Dartmouth College, Hanover, NH
- 2016 A Picture is Worth a Thousand Tables / Invited guest lecture
Phys 1130, Northeastern University
- 2018 Methods for difference-in-differences studies / Invited seminar
RAND Corporation, Boston, MA
- 2023 Difference-in-differences: More than meets the eye / Invited plenary
Women in Data Science Cambridge annual conference, Cambridge, MA

National

- 2010 Hierarchical joint models of zero-inflated longitudinal patient-reported outcomes and progression-free survival times in mesothelioma / Contributed presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, New Orleans, LA
- 2010 Multilevel Bayesian models of zero-inflated longitudinal outcomes and survival times in oncology / Invited presentation
Eli Lilly & Co., Indianapolis, IN
- 2010 Multivariate Bayesian models for longitudinal patient-reported outcomes and survival data in cancer clinical trials / Invited presentation
Eli Lilly & Co., Indianapolis, IN
- 2011 Multilevel Bayesian models of zero-inflated longitudinal outcomes and survival times in mesothelioma / Contributed presentation
Bayesian Biostatistics Conference, Houston, TX
- 2011 Hierarchical Bayesian modeling of zero-inflated longitudinal patient-reported outcomes and survival / Invited seminars
Department of Mathematics & Statistics, University of Maryland—Baltimore County, Baltimore, MD
Department of Statistics, University of Florida, Gainesville, FL
Department of Biostatistics, University of Pittsburgh School of Public Health, Pittsburgh, PA
Department of Epidemiology & Biostatistics, Memorial Sloan-Kettering, New York, NY
Department of Biostatistics, John Hopkins School of Public Health, Baltimore, MD
Department of Statistics, University of Missouri, Columbia, MO
Department of Statistics, Iowa State University, Ames, IA
Department of Health Care Policy, Harvard Medical School, Boston, MA
Department of Statistics, The Ohio State University, Columbus, OH
- 2011 Multilevel Bayesian models for zero-inflated longitudinal patient-reported outcomes and survival times in mesothelioma / Contributed presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Miami, FL
- 2011 Hierarchical Bayesian modeling of longitudinal and survival outcomes / Contributed presentation
New England Statistics Symposium, Storrs, CT
- 2011 Modeling, analysis, and software for spatial and other hierarchically structured data / Invited 2-day short course
Centers for Disease Control and Prevention, Atlanta, GA
- 2011 Learning in hierarchical Bayesian models for longitudinal and survival outcomes / Contributed presentation
International Conference on Health Policy Statistics, Cleveland, OH
- 2012 Bayesian learning in joint models for longitudinal and survival data / Contributed presentation
Bayesian Biostatistics Conference, Houston, TX

- 2012 Clinically relevant graphical displays of posterior predictions from Bayesian joint longitudinal-survival models / Contributed presentation
Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistical Methods, Kansas City, MO
- 2012 Topics in Hierarchical Bayesian Analysis / 4-day graduate course
University of Minnesota School of Public Health Summer Public Health Institute
- 2012 Introduction to Bayesian methods and software for data analysis / Invited 1-day short course
Learning and information in Bayesian joint models for longitudinal and survival data / Topic contributed presentation
Joint Statistical Meetings, San Diego, CA
- 2013 Bayesian methods and computing for joint longitudinal-survival and other multi-component models / Invited tutorial
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Orlando, FL
- 2013 Hierarchical models and computing for joint longitudinal-survival and other multiple component or endpoint data / Invited tutorial
Combining data to study utilization and effectiveness of medical devices / Invited presentation
International Conference on Health Policy Statistics, Chicago, IL
- 2014 Hierarchical models for surveillance: Application to adverse medical device events among hospitalized children / Invited seminar
Division of Epidemiology Grand Rounds, CDRH, US FDA, Silver Spring, MD
- 2014 Comparing treatment when effects vary across individuals and multiple outcomes matter / Invited talk
Annual Meeting of the Western North American Region (WNAR) of the International Biometric Society, Honolulu, HI
- 2014 Consumer choice modeling in microsimulation / Invited presentation
Joint Statistical Meetings, Boston, MA
- 2014 Shrinkage targets and utility functions in signal detection and escalation / Invited presentation
MDEpiNet Annual Meeting, Silver Spring, MD
- 2015 Realistic loss functions in safety signal escalation / Invited presentation
G70: A Celebration of Alan Gelfand, Durham, NC
- 2015 Modeling multiple outcomes to inform patient treatment decisions / Invited presentation
Joint Statistical Meetings, Seattle, WA
- 2015 Methods for multiple treatment comparisons / Invited half-day short course
MDEpiNet Annual Meeting, Silver Spring, MD
- 2015 Tailoring treatment information using personal characteristics and health outcome preferences / Invited presentation
International Conference on Health Policy Statistics, Providence, RI

- 2016 Using Bayesian analysis to produce better and more useful estimates of intervention impacts / Invited panelist
AcademyHealth Annual Research Meeting, Boston, MA
- 2016 Existing/national standards for interoperability, UDI, claims data, and methodological opportunities / Invited panelist
GI Coordinated Registry Network: A Case for Obesity Devices (FDA MDEpiNet), Silver Spring, MD
- 2016 Incorporating decision-maker loss functions in safety monitoring / Invited seminar
Statistics Department, Brigham Young University, Provo, UT
- 2016 Modeling insurance choice for the Medicare population / Invited presentation
Association for Public Policy Analysis & Management 2016 Pre-Conference Workshop, Washington, DC
- 2016 Modeling hierarchical variance with Kronecker structure, with application to quality measures in Medicare Advantage / Invited seminar
Department of Statistics, University of Washington, Seattle, WA
- 2016 Varying relationships between beneficiary traits and quality measures affect comparison in Medicare Advantage / Topic contributed presentation
Joint Statistical Meetings, Chicago, IL
- 2017 Utility maximizing models of Medicare supplemental insurance choices / Invited presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Washington, DC
- 2017 Handling incomplete correlated continuous and binary outcomes in meta-analysis of individual participant data / Invited oral presentation
Biostatistics in the Modern Computing Era, Wauwatosa, WI
- 2017 Methods for difference-in-difference studies / Invited seminar
Department of Biostatistics, Johns Hopkins University, Baltimore, MD
- 2017 Handling incomplete correlated continuous and binary outcomes in meta-analysis of individual participant data / Invited oral presentation
Joint Statistical Meetings, Baltimore, MD
- 2017 Networking among junior statisticians: Peer mentoring and strategies to promote one another / Invited panelist
Women in Statistics and Data Science, La Jolla, CA
- 2018 Methods for difference-in-difference studies / Invited seminar
Department of Biostatistics, MD Anderson Cancer Center, Houston, TX
- 2018 Clustering discrete state trajectories of varying lengths: health care utilization patterns / Invited presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Atlanta, GA
- 2018 Bayesian models for objective performance criteria / Invited presentation
11th Annual FDA/AdvaMed Medical Devices & Diagnostics Statistical Issues Conference, Washington, DC

- 2018 Complex real-world evidence: Networked and missing data / Invited workshop
Annual meeting of the International Society of Pharmacoeconomics and Outcomes Research, Baltimore, MD
- 2018 Bayesian models for objective performance criteria / Invited presentation
ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Washington, DC
- 2018 Choosing comparison groups for difference-in-difference studies / Contributed presentation
International Conference on Health Policy Statistics, Charleston, SC
- 2019 Personalized Bayesian minimum-risk decisions / Invited presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Philadelphia, PA
- 2019 Practical Bayesian approaches to evidence generation and synthesis for medical devices / Invited full-day short course
12th Annual FDA/AdvaMed Medical Devices and Diagnostics Statistical Issues Conference, Washington, DC (AdvaMed)
- 2019 Difference-in-differences: More than meets the eye / Invited seminar
SAMSI Causal Inference Opening Workshop, Durham, NC (SAMSI)
- 2020 Fundamentals of difference-in-differences / Invited 2-hour tutorial
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Nashville, TN (moved online due to COVID-19)
- 2020 Why not test for parallel trends in difference-in-differences? / Invited seminar
Columbia University, New York, NY (moved online due to COVID-19)
- 2020 Why not test for parallel trends in difference-in-differences? / Invited seminar
New York University, New York, NY (moved online due to COVID-19)
- 2020 Difference-in-differences: More than meets the eye / Invited seminar
Center for Medicare and Medicaid Innovation, Baltimore, MD (moved online due to COVID-10)
- 2020 Handling silently missing data in Medicare Advantage encounter data / Invited presentation
International Conference on Health Policy Statistics, San Diego, CA (moved online due to COVID-19)
- 2020 Estimating mortality by educational attainment: combining data sources with Bayesian models / Invited presentation
Statistical methods for state health policy evaluations / Invited discussant
Joint Statistical Meetings, Philadelphia, PA (moved online due to COVID-19)
- 2021 Anti-Racism in the Ivory Tower / Invited roundtable
Joint Statistical Meetings, Seattle, WA (moved online due to COVID-19)
- 2021 Discussion of “Using stacked comparative interrupted time series to estimate opioid policy effects” / Invited discussant
Online Causal Inference Seminar, Stanford, CA (moved online due to COVID-19)
- 2021 Discussion of “Policy Evaluation during a Pandemic” / Invited discussant

- 2021 Annual Health Economics Workshop, Atlanta, GA (moved online due to COVID-19)
Internal versus external comparison groups for difference-in-differences studies /
Invited seminar
Wake Forest School of Medicine, Winston-Salem, NC (moved online due to COVID-19)
- 2022 Internal versus external comparison groups for difference-in-differences studies /
Invited seminar
UNC Gillings School of Global Public Health, Chapel Hill, NC (moved online due to COVID-10)
- 2022 Simulating competing comparison group options / Invited seminar
Center for Medicare and Medicaid Innovation, Baltimore, MD (moved online due to COVID-10)
- 2022 Internal versus external comparison groups for difference-in-differences studies /
Invited seminar
RAND, Santa Monica, CA (moved online due to COVID-19)
- 2022 Casemix adjustment using diagnosis codes: Impact of differential coding practices /
Contributed presentation
Annual Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Houston, TX
- 2022 Adjusting for the Influence of COVID-19 in CMMI Model Evaluations / Invited panelist
AcademyHealth Annual Research Meeting, Washington, DC
- 2022 No free lunch: A noninferiority approach to model assumption tests / Contributed presentation
Joint Statistical Meetings, Washington, DC
- 2022 Model what you can and assume the rest: Model selection for reducing sensitivity to causal identification assumptions / Invited seminar
Mathematica Policy Research (hybrid talk delivered from Cambridge, MA)
- 2022 Model what you can and assume the rest: Model selection for reducing sensitivity to causal identification assumptions / Invited seminar
University of Minnesota Division of Biostatistics (moved online due to COVID-19)
- 2022 The matching database continues: A discussion of Ham & Miratrix / Invited discussant
Online Causal Inference Seminar
- 2023 How can we fix what we cannot see? Adjusting for silently missing encounters in Medicaid TAF data / Contributed presentation
International Conference on Health Policy Statistics, Scottsdale, AZ
- 2023 Adaptive metrics for an evolving pandemic / Invited seminar
CHOICE Institute, University of Washington (moved online due to COVID-19)

International

- 2010 Hierarchical joint models of zero-inflated longitudinal patient-reported outcomes and progression-free survival times in mesothelioma / Contributed presentation
Joint Statistical Meetings, Vancouver, BC

- 2012 Identifiability and learning in Bayesian joint longitudinal-survival models / Special topic presentation
International Society of Bayesian Analysis World Meeting, Kyoto, Japan
- 2012 Bayesian adaptive methods for clinical trials / Invited 2-day short course
Erasmus University Medical Center, Rotterdam, The Netherlands
- 2012 Hierarchical Bayesian methods for combining multiple endpoints for comparative effectiveness research / Invited seminar
I-Biostat (KU Leuven and Hasselt University), Belgium
- 2013 Bayesian methods developments in microsimulation / Topic contributed presentation
Joint Statistical Meetings, Montréal, Québec, Canada
- 2014 Consumer choices in microsimulation / Invited presentation
Institute of Mathematical Statistics-International Society for Bayesian Analysis 5th Joint Meeting, Chamonix, France
- 2014 Structured covariance matrices for cross-classified data: a Bayesian approach / Invited presentation
International Society of Bayesian Analysis World Meeting, Cancún, Mexico
- 2017 Medical devices: Generating and using real-world observational data for decision-making on value / Invited panel presentation
Canadian Agency for Drugs and Technologies in Health Symposium, Ottawa, Canada
- 2018 Illuminating variation in implantable cardiac device use and outcomes with billing claims data / Invited presentation
Annual meeting of the International Chinese Statistical Association, New Brunswick, NJ
- 2018 Big data detectives: improving human health through informing policy / Invited panelist
Joint Statistical Meetings, Vancouver, BC, Canada
- 2018 Methods for difference-in-differences / Invited presentation
Workshop on Statistical Inference, Learning, and Models in Data Science (Fields Institute), Toronto, BC, Canada
- 2019 How do we know what works in health policy? / Invited plenary
ISPOR Europe 2019, Copenhagen, Denmark
- 2021 Within- versus between-market comparison units for diff-in-diff / Invited presentation
CFE-CMStatistics, London, England (moved online due to COVID-19)

Report of Education of Patients and Service to the Community

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

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

Activities

2017 Care at the end of life / Panelist (Moore Foundation)

- 2017 Health Affairs Issue Briefing, Advanced Illness and End-of-Life Care
Data Science & Medicine / Invited presentation
Harvard Medical School Talks@12
- 2018 How will we know if alternative payment models are working? / Invited presentation
30th Anniversary Celebration of the Department of Health Care Policy
- 2022 Field in Focus - Learn what it takes to be a top peer reviewer / Invited panelist
AcademyHealth webinar

Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

Research Investigations

ORCID: 0000-0003-0366-3929

1. Kossoff EH, **Hatfield LA**, Ball KL, Comi AM. Comorbidity of epilepsy and headache in patients with Sturge-Weber syndrome. *Journal of Child Neurology*. 2005;20(8):678-682, 2005. PMID 16225815
2. Kelley TM, **Hatfield LA**, Lin DDM, Comi AM. Quantitative analysis of cerebral cortical atrophy and correlation with clinical severity in unilateral Sturge-Weber syndrome. *Journal of Child Neurology*. 2005;20(11):867-870. PMID 16417855.
3. Comi AM, Mehta P, **Hatfield LA**, Dowling MM. Sturge-Weber syndrome associated with other abnormalities: a medical record and literature review. *Archives of Neurology*. 2005;62(12):1924-1927. PMID 16344352
4. Lin DDM, Barker PB, **Hatfield LA**, Comi AM. Dynamic MR perfusion and proton MR spectroscopic imaging in Sturge-Weber syndrome: correlation with neurological symptoms. *Journal of Magnetic Resonance Imaging*. 2006;24(2):274-281. PMID 16786573
5. **Hatfield LA**, Crone NE, Kossoff EH, Ewen JB, Pyzik PL, Lin DDM, Kelley TM, Comi AM. Quantitative EEG asymmetry correlates with clinical severity in unilateral Sturge-Weber syndrome. *Epilepsia*. 2007;48(1):191-195. PMID 17241228
6. Kossoff EH, Balasta M, **Hatfield LA**, Lehmann CU, Comi AM. Self-reported treatment patterns in patients with Sturge-Weber syndrome and migraines. *Journal of Child Neurology*. 2007;22(6):720-726. PMID 17641257
7. Rosser BRS, Horvath KJ, **Hatfield LA**, Peterson JL, Jacoby S, Stately A, Positive Connections Team. Predictors of HIV disclosure to secondary partners and sexual risk behavior among high-risk sample of HIV-positive MSM: results from six epicenters in the US. *AIDS Care*. 2008;20(8):925-930. PMID 18777221. PMCID 2597109
8. **Hatfield LA**, Horvath KJ, Jacoby SM, and Rosser BRS. Comparison of substance use and risky sexual behavior among a diverse sample of urban, HIV-positive men who have sex with men. *Journal of Addictive Diseases*. 2009;28(3):208-218. PMID 20155589
9. **Hatfield LA**, Hoffbeck RW, Alexander BH, Carlin BP. Spatiotemporal and spatial threshold models for relating UV exposures and skin cancer in the central United States. *Computational Statistics & Data Analysis*. 2009;53(8):3001-3015. PMID 20161236 PMCID 2705173

10. **Hatfield LA**, Ghiselli ME, Jacoby SM, Cain-Nielsen A, Kilian G, McKay T, Rosser BRS. Methods for recruiting men of color who have sex with men in prevention-for-positives interventions. *Prevention Science*. 2010;11(1):56-66. PMID 19731034
11. Rosser BRS, **Hatfield LA**, Miner MH, Ghiselli ME, Lee BR, Welles SL, Positive Connections Team. Effects of a behavioral intervention to reduce serodiscordant unsafe sex among HIV positive men who have sex with men: The Positive Connections randomized controlled trial study. *Journal of Behavioral Medicine*. 2010;33(2):147-158. PMID 20101454
12. **Hatfield LA**, Gutreuter S, Boogaard MA, Carlin BP. Multilevel empirical Bayes modeling for improved estimation of toxicant formulations to suppress parasitic sea lamprey in the upper Great Lakes. *Biometrics*. 2011;67(3):1153-1162. PMID 21361894 PMCID 3111860.
13. **Hatfield LA**, Boye ME, Carlin BP. Joint modeling of multiple longitudinal patient-reported outcomes and survival. *Journal of Biopharmaceutical Statistics*. 2011;21(5):971-991. PMID 21830926 PMCID 3212950 NIHMS332780 doi:10.1080/10543406.2011.590922
14. **Hatfield LA** and Carlin BP. Clinically relevant graphical predictions from Bayesian joint longitudinal-survival models. *Health Services and Outcomes Research Methodology*. 2012;12(2-3):169-181. doi: 10.1007/s10742-012-0087-9
15. **Hatfield LA**, Boye ME, Hackshaw MD, Carlin BP. Multilevel Bayesian models for survival times and longitudinal patient-reported outcomes with many zeros. *Journal of the American Statistical Association*. 2012;107(499):875-885. doi: 10.1080/01621459.2012.664517
16. **Hatfield LA**, Hodges JS, Carlin BP. Joint models: When are treatment estimates improved? *Statistics and Its Interface*. 2014;7(4): 439-453. doi: 10.4310/SII.2014.v7.n4.a2
17. Rizopoulos D, **Hatfield LA**, Carlin BP, Takkenberg JJM. Combining dynamic predictions from joint models for longitudinal and time-to-event data using Bayesian model averaging. *Journal of the American Statistical Association*. 2014;109(508): 1385-1397. doi: 10.1080/01621459.2014.931236
18. Wright AA, **Hatfield LA**, Earle CC, Keating NL. End-of-life care for older patients with ovarian cancer is intensive despite high rates of hospice use. *Journal of Clinical Oncology*. Nov 2014;32(31): 3534-3539. PMID: 25287831 PMCID: 4209104 doi: 10.1200/JCO.2014.55.5383
19. Kramer DB, **Hatfield LA**, McGriff D, Ellis CR, Bura MT, Samuel M, Kallinen Retel L, Hauser RG. Transvenous implantable cardioverter-defibrillator lead reliability: implications for postmarket surveillance. *Journal of the American Heart Association*. May 2015;4(6): e001672. PMID: 26025935 PMCID: PMC4599526 doi: 10.1161/JAHA.114.001672
20. Providência R, Kramer D, Pimenta D, Babu GG, **Hatfield LA**, Ioannou A, Novak J, Hauser R, Lambiase P. Transvenous ICD lead performance: A meta-analysis of observational studies. *Journal of the American Heart Association*. 2015;4: e002418. PMCID: 4845221 doi: 10.1161/JAHA.115.002418
21. Gomes M, **Hatfield LA**, Normand SL. Handling incomplete correlated continuous and binary outcomes in meta-analysis of individual participant data. *Statistics in Medicine*. 2016;35(21): 3676-89. PMID: 27090498 doi: 10.1002/sim.6969

22. McWilliams JM, **Hatfield LA**, Chernew ME, Landon BE, Schwartz AL. Early performance of accountable care organizations in Medicare. *New England Journal of Medicine*. Jun 2016;374(24): 2357-66. PMID: PMC4963149 doi: 10.1056/NEJMsa1600142
23. Desai S, **Hatfield LA**, Hicks AL, Chernew ME, Mehrotra A. Association between availability of a price transparency tool and outpatient spending. *Journal of the American Medical Association*. May 2016;315(17): 1874-81. PMID: 27139060 doi: 10.1001/jama.2016.4288
24. **Hatfield LA**, Huskamp HA, Lamont EB. Survival and toxicity after cisplatin plus etoposide versus carboplatin plus etoposide for extensive-stage small-cell lung cancer in elderly patients. *Journal of Oncology Practice*. Jul 2016;12(7): 666-73. PMID: PMC4957252 doi: 10.1200/JOP.2016.012492
25. **Hatfield LA**, Kramer DB, Volya R, Reynolds MR, Normand SL. Geographic and temporal variation in cardiac implanted electric devices to treat heart failure. *Journal of the American Heart Association*. Aug 2016;5(8): e003532. PMID: PMC5015279 doi: 10.1161/JAHA.116.003532
26. Dean K, **Hatfield LA**, Jena AB, Cristman D, Flair M, Kator K, Nudd G, Grabowski D. Preliminary data on a care coordination program for home care recipients. *Journal of the American Geriatrics Society*. Aug 2016;64(9): 1900-36. PMID: 27506164 doi: 10.1111/jgs.14351
27. Tai-Seale M, **Hatfield LA**, Wilson C, Stults C, McGuire TG, Diamond L, Frankel R, McLean L, Stone A, and Elston Lafata J. Periodic health examinations and missed opportunities among patients likely needing mental health care. *American Journal of Managed Care*. Oct 2016;22(10): e350-7.
28. Chien AT, Ganeshan S, Schuster MA, Lehmann LS, **Hatfield LA**, Koplan KE, Petty CR, Sinaiko AD, Sequist TD, Rosenthal MB. The effect of price information on the ordering of images and procedures. *Pediatrics*. Feb 2017;139(2): e20161507. doi: 10.1542/peds.2016-1507
29. Kumar P, Wright AA, **Hatfield LA**, Temel JS, Keating NL. Family perspectives on cancer patients' hospice care experiences. *Journal of Clinical Oncology*. Feb 2017;35(4): 432-9. PMID: 27992271 doi: 10.1200/JCO.2016.68.9257
30. Afendulis CC, **Hatfield LA**, Landon BE, Gruber J, Landrum MB, Mechanic RE, Zinner D, Chernew ME. Early impact of CareFirst's patient-centered medical home with strong financial incentives. *Health Affairs*. Mar 2017;36(3):468-75. doi: 10.1377/hlthaff.2016.1321
31. Chien AT, Lehmann LS, **Hatfield LA**, Koplan KE, Petty CR, Sinaiko AD, Rosenthal MB, and Sequist TD. A randomized trial of displaying paid price information on image and procedure ordering rates. *Journal of General Internal Medicine*. Apr 2017;32(4):434-48. doi: 10.1007/s11606-016-3917-6
32. Daw JR**, **Hatfield LA**, Swartz K, Sommers BD. U.S. women experience high rates of insurance coverage 'churn' in months before and after childbirth. *Health Affairs*. Apr 2017;36(4):598-606. doi: 10.1377/hlthaff.2016.1241

33. Gourevitch RA, Desai S, Hicks AL, **Hatfield LA**, Chernew ME, Mehrotra A. Who uses a price transparency tool? Implications for increasing consumer engagement. *Inquiry*. May 2017;54:1-5. doi: 10.1177/0046958017709104
34. Schuler MS** and **Hatfield LA**. Combining patient preferences with expected treatment outcomes to inform decision-making. *Health Services and Outcomes Research Methodology*. Jun 2017;17(2):144-74. doi: 10.1007/s10742-016-0166-4
35. **Hatfield LA**, Baugh CM**, Azzone V, Normand S-LT. Regulator loss functions and hierarchical modeling for safety decision making. *Medical Decision Making*. Jul 2017;37(5): 512-22. doi: 10.1177/0272989X16686767
36. Schuler MS**, Joyce NR**, Huskamp HA, Lamont EB, **Hatfield LA**. Medicare beneficiaries with advanced cancer experience diverse patterns of care from diagnosis to death. *Health Affairs*. Jul 2017; 36(7):1193-1200. doi: 10.1377/hlthaff.2017.0448
37. **Hatfield LA** and Zaslavsky AM. Implications of variation in the relationships between beneficiary characteristics and Medicare Advantage CAHPS measures. *Health Services Research*. Aug 2017; 52(4):1310-1329. doi: 10.1111/1475-6773.12544
38. Desai S, **Hatfield LA**, Hicks AL, Sinaiko AD, Chernew ME, Cowling D, Gautam S, Wu S-J, Mehrotra A. Offering a price transparency tool did not reduce overall spending among California Public Employees and Retirees. *Health Affairs*. Aug 2017;36(8):1401-7. doi: 10.1377/hlthaff.2016.1636
39. Stevens JP, Nyweide DJ, Maresh S, **Hatfield LA**, Howell MD, Landon BE. Comparison of hospital resource use and outcomes among hospitalists, primary care physicians, and other generalists. *JAMA Internal Medicine*. Dec 2017;177(12):1781-1787. doi: 10.1001/jamainternmed.2017.5824
40. Joyce NR**, Schuler MS**, Hadland S, **Hatfield LA**. Variation in 12-month treatment trajectories among children and adolescents after a diagnosis of depression. *JAMA Pediatrics*. Jan 2018;172(1):49-56. doi: 10.1001/jamapediatrics.2017.3808
41. Roberts ET, McWilliams JM, **Hatfield LA**, Gerovich S, Chernew ME, Gilstrap LG, Mehrotra A. Changes in health care use associated with the introduction of hospital global budgets in Maryland. *JAMA Internal Medicine*. Jan 2018;178(2):260-268. doi: 10.1001/jamainternmed.2017.7455
42. **Hatfield LA**, Favreault MM, McGuire TG, Chernew ME. Modeling health care spending growth of older adults. *Health Services Research*. Feb 2018;53(1):138-155. doi: 10.1111/1475-6773.12640
43. Roberts ET, **Hatfield LA**, McWilliams JM, Chernew ME, Done N, Gerovich S, Gilstrap LG, Mehrotra A. Changes in hospital utilization three years into Maryland's global budget program for rural hospitals. *Health Affairs*. April 2018;37(4):644-653. doi: 10.1377/hlthaff.2018.0112
44. **Hatfield LA** and Zaslavsky AM. Separable covariance models for health care quality measures across years and topics. *Statistics in Medicine*. May 2018;37(12): 2053-2066. doi: 10.1002/sim.7656

45. Daw JR** and **Hatfield LA**. Matching and regression-to-the-mean in difference-in-difference analysis. *Health Services Research*. Dec 2018;53(6):4138-56. doi: 10.1111/1475-6773.12993
- JR Daw received a 2019 CIHR Institute of Health Services and Policy Research Rising Star Award for this paper.
 - Commentary: Ryan A. Well-balanced or too matchy-matchy? The controversy over matching in difference-in-difference analysis. *Health Services Research*. Dec 2018 53(6): 4106-10. doi: 10.1111/1475-6773.13015
46. McWilliams JM, **Hatfield LA**, Landon BE, Hamed P, Chernew ME. Medicare spending after 3 years of the Medicare Shared Savings Program. *New England Journal of Medicine*. Sept 2018;379:1139-49. doi:10.1056/NEJMsa1803388
47. Kramer DB, Normand, S-LT, Volya M, **Hatfield LA**. Facility-level variation and clinical outcomes in use of cardiac resynchronization therapy with and without an implantable cardioverter-defibrillator. *Circulation: Cardiovascular Quality and Outcomes*. Dec 2018;11:e004763. doi: 10.1161/CIRCOUTCOMES.118.004763
48. Spertus JV, **Hatfield LA**, Cohen DJ, Arnold SV, Ho M, Jones PG, Leon M, Zuckerman B, Spertus JA. Integrating quality of life and survival outcomes in cardiovascular clinical trials: Results from the PARTNER trial. *Circulation: Cardiovascular Quality and Outcomes*. Jun 2019;12(6):e005420. doi: 10.1161/CIRCOUTCOMES.118.005420
49. Baugh CB**, Meehan W, Kroshus E, McGuire TG, **Hatfield LA**. College football players less likely to report concussions and other injuries with increased injury accumulation. *Journal of Neurotrauma*. Jul 2019;36(13):2065-2072. doi: doi.org/10.1089/neu.2018.6161
50. Desai S, **Hatfield LA**, Hicks AL, Chernew ME, Mehrotra A, Sinaiko AD. What are the potential savings from steering patients to lower-priced providers? A static analysis. *American Journal of Managed Care*. Jul 2019 (ePub ahead of print) PMID: 31318511
51. Progovac AM, Mullin BO, Creedon TB, McDowell A, Sanchez-Roman MJ, **Hatfield LA**, Schuster MA, Cook BL. Trends in mental health care use in Medicare from 2009 to 2014 by gender minority and disability status. *LGBT Health*. Sept 2019;6(6):297-305. doi: 10.1089/lgbt.2018.0221
52. Kurz CF** and **Hatfield LA**. Identifying and interpreting subgroups in health care utilization data with count mixture regression models. *Statistics in Medicine*. Sept 2019;38(22):4423-35. doi: 10.1002/sim.8307
53. Graves JA, **Hatfield LA**, Blot WJ, Keating NL, McWilliams JM. Medicaid expansion reduced rates of health status declines among low-income safety net patients in Southern states. *Health Affairs*. Jan 2020;39(1):67-76. doi: 10.1377/hlthaff.2019.00929
54. Stevens JP, **Hatfield LA**, Nyweide DJ, and Landon BE. Association of variation in consultant use among hospitalist physicians with outcomes among Medicare beneficiaries. *JAMA Network Open*. Feb 2020;3(2): e1921750-e1921750. doi: 10.1001/jamanetworkopen.2019.21750
55. Baugh CM**, Meehan WP, McGuire TG, **Hatfield LA**. Staffing and financial and administrative oversight models are associated with rates of injury in college athletes. *Journal of Athletic Training*. April 2020;55(6):580-586. doi: 10.4085/1062-6050-0517.19

56. McWilliams JMM, **Hatfield LA**, Landon BE, Chernew ME. Savings or selection? Initial spending reductions in the Medicare Shared Savings Program and considerations for reform. *Milbank Quarterly*. Jul 2020; 98 (3), 847-907. doi: 10.1111/1468-0009.12468
 - Recognized as a top cited article by *Milbank Quarterly*
57. Carolan KJ, Grabowski DC, Mehrotra A, **Hatfield LA**. Use of telemedicine for emergency triage in an independent senior living community: Mixed methods study. *Journal of Medical Internet Research*. Dec 2020; 22(12):e23041. doi: 10.2196/23014
58. Baugh CM**, Kroshus E, Meehan WP, McGuire TG, **Hatfield LA**. Accuracy of college football players' estimates of their risk of concussion or injury. *JAMA Network Open*. Dec 2020;3(12): e2031509. doi: 10.1001/jamanetworkopen.2020.31509
59. **Hatfield LA**, Caudry D, Grabowski DC. Change in condition alerts for home care recipients: a stepped wedge cluster randomized trial. *Journal of the American Geriatrics Society*. Sept 2021;69(9):2548-2555. doi: 10.1111/jgs.17324
60. Zeldow B** and **Hatfield LA**. Confounding and regression adjustment in difference-in-differences studies. *Health Services Research*. Oct 2021;56(5):932-941. doi: 10.1111/1475-6773.13666
61. Fry CE** and **Hatfield LA**. Birds of a feather flock together: comparing controlled pre-post designs. *Health Services Research*. Oct 2021;56(5): 942-952. doi: 10.1111/1475-6773.13697
 - James F. Burgess Methods Article of the Year
62. Haber NA, Clarke-Deelder E, Feller A, Smith E, Salomon J, MacCormack-Gelles B, Stone EM, Bolster-Foucault C, Daw JR, **Hatfield LA**, Fry CE, Boyer CB, Ben-Michael E, Joyce CM, Linas BS, Schmid I, Au E, Wieten S, Jarrett B, Axfors C, Nguyen V, Griffin BA, Bilinski A, and Stuart EA. Problems with Evidence Assessment in COVID-19 Health Policy Impact Evaluation (PEACHPIE): A systematic strength of methods review. *BMJ Open*. Jan 2022;12:e053820. doi: 10.1136/bmjopen-2021-053820
63. Stevens JP, **Hatfield LA**, Nyweide DJ, and Landon B. Comparison of health outcomes among patients admitted on busy vs less busy days for hospitalists. *JAMA Network Open*. Jan 2022;5(1):e2144261. doi:10.1001/jamanetworkopen.2021.44261
64. Graves JA, Fry CE, McWilliams JM, **Hatfield LA**. Difference-in-differences for categorical outcomes. *Health Services Research*. Feb 2022; 57(3):681-692. doi: 10.1111/1475-6773.13948
65. Cram P, **Hatfield LA**, Bakx P, Banerjee A, Fu C, Gordon M, Hine R, Huang N, Ko D, Lix LM, Novack V, Pasea L, Qiu F, Stukel TA, Uyl-de Groot C, Yan L, Landon BE. Variation in revascularisation use and outcomes of patients in hospital with acute myocardial infarction across six high income countries: cross sectional cohort study. *BMJ*. May 2022;377:e069164. doi: 10.1136/bmj-2021-069164
66. Gourevitch R**, **Hatfield LA**. Changes in prenatal care and birth outcomes after Federally Qualified Health Center expansion. *Health Services Research*. (Online ahead of print) doi: 10.1111/1475-6773.14099

** Indicates mentee author

Other peer-reviewed scholarship

1. Normand S-LT, **Hatfield LA**, Drozda J, Resnic FS. Postmarket surveillance for medical devices: America's new strategy. *BMJ*. 2012;345:e6848. doi: 10.1136/bmj.e6848
2. **Hatfield LA**. Discussion of "Spatial accessibility of pediatric primary healthcare: Measurement and inference". *Annals of Applied Statistics*. 2014;8(4):1947-1951. doi: 10.2307/24522368
3. Kramer DB, **Hatfield LA**, Normand S-LT. Comparative effectiveness of cardiac implantable electric devices. *Heart*. 2015;101(22):1773-5. PMID 26303153 doi: 10.1136/heartjnl-2015-308295
4. Daw JR** and **Hatfield LA**. Matching in difference-in-differences: between a rock and a hard place. *Health Services Research*. Dec 2018; 53(6):4111-17. doi: 10.1111/1475-6773.13017

Non-peer reviewed scholarship in print or other media

1. **Hatfield LA**, Zusterzeel R, Daluwatte C, Normand S-L. Improving access to medical devices: The use and evaluation of objective performance criteria. *Health Affairs Blog*. 26 Jul 2018. <https://www.healthaffairs.org/doi/10.1377/hblog20180726.907775/full/>
2. Bilinski AM** and **Hatfield LA**. Commentary & Response: Potential unintended effects of Medicare's bundled payments for care improvement program. *Journal of the American Medical Association*. Jan 2019;321(1):106. doi: 10.1001/jama.2018.18158

Reviews, chapters, and editorials

1. **Hatfield LA**, Comi AM. Neurological complications of congenital heart disease. In S. Gilman, editor, *MedLink Neurology*. San Diego: MedLink Corporation, Aug 2004.

Other non-peer reviewed scholarship

1. **Hatfield LA**, Carlin BP. Complete solutions manual for Carlin & Louis's *Bayesian Methods for Data Analysis*, 3rd ed. Boca Raton: Chapman & Hall/CRC, 2009.
2. **Hatfield LA** and Rose S. A conversation with Sherri Rose, winner of the 2020 health policy statistics section mid-career award. *Health Services and Outcomes Research Methodology*. Aug 2020;20(4):208-14. doi: 10.1007/s10742-020-00216-6

Professional educational materials or reports, in print or other media

1. Zeldow B and **Hatfield LA**. Difference-in-Differences (website). Originally published Feb 2019. diff.healthpolicydatascience.org [Averages ~100 visitors a day]

Thesis

Hatfield LA. (2011) Bayesian hierarchical joint modeling for longitudinal and survival data. (Doctoral dissertation). University of Minnesota. Advisor: Bradley P. Carlin, PhD

Manuscripts Submitted to Preprint Servers

1. Bilinski AM** and **Hatfield LA**. Nothing to see here? Non-inferiority approaches to parallel trends and other model assumptions. Jan 2020 arXiv:1805.03273v5 [stat.ME]

Narrative Report

On a foundation of expertise in methods hierarchical modeling, I have expanded my work into health economics, comparative effectiveness research, variation in health care quality and delivery, evaluations of interventions using observational data and quasi-experimental designs, and health decision-making. My three methodological foci are (1) understanding variation in health care, (2) quasi-experimental methods for causal inference, and (3) multiple outcome tradeoffs

Understanding variation in health care. To identify opportunities to improve health care quality and outcomes, we must first understand where there is variation on which to intervene. I have developed methods to distill variation in the health care system into interpretable outputs. One method of understanding variability is to use statistical modeling. However, the interesting patterns of variation in complex data are obscured by standard methods. Therefore, I have developed novel methods of structuring the variance estimators to illuminate the important aspects of variability.

Another way to understand variation is to identify subgroups with similar experiences and describe the patterns in those subgroups. For instance, attention in health policy has focused on patients with very high spending, while clinical interest may be on patients with high utilization of ED visits. More sophisticated methods are needed to characterize the population along several dimensions of care at once. I have developed and applied an innovative new clustering technique to trajectories of health care.

My collaborative research in health care and outcome variation includes studies of variation in implantation of cardiac electric devices, insurance coverage during pregnancy and post-partum periods, mental health screening during primary care visits, end-of-life care for patients with cancer, and revascularization for acute myocardial infarction. In addition, I brought my expertise in hierarchical and complex multiple outcome modeling to build a large microsimulation model that enabled sophisticated projections of variation in the burden of growing health care spending across Medicare beneficiaries. The consequences of growing health care spending vary according to seniors' health needs and financial resources. Our model, which incorporate these distributional consequences, provided key insights into variation in the impact of health care spending growth.

Quasi-experimental methods for causal inference. In health care policy, interventions to improve the quality and efficiency of care are rarely randomized. Instead, public and private payers implement new ideas and then ask, "Did it work?" One way of answering this question is to compare the evolution of outcomes over time in a group that is exposed to treatment and an unexposed comparison group before and after the treatment begins in the treated group. If we are willing to assume the groups would have followed similar paths in the absence of treatment, we can attribute any differential changes to the treatment. Some popular designs in this basic category include difference-in-differences, controlled interrupted time series, and synthetic control methods. As their influence spreads, it is crucial to refine the methods to produce rigorous results. My methodological work on causal inference in observational settings has enabled rigorous research on the impact of health policy and health services interventions.

I have comprehensively evaluated the strength of early evidence on non-pharmaceutical interventions during COVID, finding very poor adherence to even basic methodological standards in papers that used these designs. I have contributed to the understanding of confounding in difference-in-differences and built bridges across disciplinary divides by clearly illuminating the underlying counterfactual assumptions of related techniques like comparative interrupted time series. I have extended difference-in-difference methods to new outcome types and continue this line of research with a recently funded R01 to develop new target estimands specifically tailored to evaluations of impacts on health equity.

Multiple outcome tradeoffs. Many analysis settings involve data with complex structure and interrelationships; hierarchical Bayesian modeling offers a natural and flexible approach to estimation and inference. Through close collaboration with subject matter experts, I have developed and applied hierarchical Bayesian models to address the complex data structures of experimental designs, spatial relationships, and repeated observations. I have made contributions in multiple outcome modeling. My earliest work focused on jointly modeling survival and patient-reported outcomes in cancer clinical trials. Clinical trials typically report each outcome separately, but patients and physicians must weigh multiple health outcomes when choosing among treatments. My approaches combine evidence across outcomes, treatments, and data sources to produce joint output that supports decisions that must trade off risks and benefits. My recent work in this area combines joint model output with explicit loss functions and utilities to improve decision-making for patients and regulators.

To broaden the reach of my teaching and mentoring, I co-founded and co-direct the **Health Policy Data Science Lab** with my colleague Dr. Sherri Rose (now of Stanford). The Lab comprises postdoctoral fellows and graduate students interested in rigorous methods for health policy research. The Lab provides trainees a collegial space to network with faculty and peers and to present their ongoing research. It is also an accessible entry point for students who are interested in pursuing graduate studies or identifying thesis projects. In addition to regular meetings at which Lab members and faculty present research, technical, and professional development topics, we also host writing retreats, journal clubs, and social events.