#### **CURRICULUM VITAE**

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### **Education**

1989	B.S.	Biochemistry, in Honors	Virginia Tech
1993	M.D.	Medicine	University of Chicago Pritzker School of Medicine
1998	M.P.H.	Public Health, Clinical Effectiveness	Harvard School of Public Health

## **Postdoctoral Training**

Internship and	Residencies		
1993-1994	Intern in Medicine	Brigham and Women's Hospital	Boston, MA
1994-1996	Resident in Medicine	Brigham and Women's Hospital	Boston, MA
Clinical and R	esearch Fellowships		
1993-1996	Clinical Fellow in Medicine	Harvard Medical School	Boston, MA
1996-1998	Fellow, Harvard Faculty Development	Brigham and Women's Hospital	Boston, MA
	and Fellowship Program in General		
	Internal Medicine		
1996-1998	Fellow, Department of Health Care	Harvard Medical School	Boston, MA
	Policy		

### **Faculty Academic Appointments**

1998-2003	Instructor in Health Care Policy	Health Care Policy	Harvard Medical School
1998-2003	Instructor in Medicine	Medicine	Harvard Medical School
2003-2007	Assistant Professor of Health Care Policy	Health Care Policy	Harvard Medical School
2003-2007	Assistant Professor of Medicine	Medicine	Harvard Medical School
2007-2014	Associate Professor of Health Care Policy	Health Care Policy	Harvard Medical School
2007-2014	Associate Professor of Medicine	Medicine	Harvard Medical School
2014-	Professor of Health Care Policy	Health Care Policy	Harvard Medical School
2014-	Professor of Medicine	Medicine	Harvard Medical School

## **Appointments at Hospitals/Affiliated Institutions**

1996-	Associate Physician	Department of Medicine	Brigham and Women's Hospital
1998-	Consulting Staff	Department of Medical Oncology	Dana-Farber Cancer Institute
2002-	Associate Physician	Department of Medicine	Faulkner Hospital
2022-	Associate Faculty	Ariadne Labs	Brigham and Women's Hospital
			and Harvard TH Chan School of
			Public Health
2023-	Affiliated Faculty	Department of Medical Oncology	Dana-Farber Cancer Institute

# **Major Administrative Leadership Positions**

Local		
2012-	Team Leader, Phyllis Jen Center for Primary	Harvard Medical School Primary Care
	Care	Collaborative and Brigham and Women's
		Hospital
2013-2021	Program Co-Leader, Cancer Care Delivery	Dana-Farber/Harvard Cancer Center
	Research Program	
2021-	Program Leader, Cancer Care Delivery Research	Dana-Farber/Harvard Cancer Center
	Program	
2017-	Program Co-Director, Training in Oncology	Dana-Farber/Harvard Cancer Center
	Population Sciences T32 Program	

# **Committee Service**

Local		
1989-1990	Liaison Committee for Medical Education Task Force 1989-1990 Member	University of Chicago Pritzker School of Medicine
1990-1993	Dean's Council 1990-1993 Class Representative	University of Chicago Pritzker School of Medicine
1990-1993	Pritzker School of Medicine Committee on Admissions 1990-1993 Interviewer 1992-1993 Student Member	University of Chicago Pritzker School of Medicine
1992	Orientation to the Clinical Biennium Committee 1992 Chairman and cofounder	University of Chicago Pritzker School of Medicine
1993-1996, 2001-	Intern Selection Committee, BWH Residency	Brigham and Women's Hospital
2001-	Program 1993-1996 Resident Member 2001- Member	
1995-1996	Evidence Based Medicine Journal Club 1995-1996 Coordinator 1997- Faculty Discussion Leader	Brigham and Women's Hospital
1996-1998	General Medicine Fellows' Seminar 1996-1998 Coordinator	Brigham and Women's Hospital
1999-	Division of General Internal Medicine Faculty Journal Club	Brigham and Women's Hospital

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1000	1999- Coordinator	D'1 1W 1W 1
1999-	Brigham Internal Medicine Associates Study	Brigham and Women's Hospital
	Review Committee	
	1999- Member and Chair	
2000-2003,	Faculty Search Committee, Division of General	Brigham and Women's Hospital
2009-2010	Medicine	
	2000-2003 Member	
	2009-2010 Member	
2004-2005,	Harvard Medical School Faculty Council	Harvard Medical School
2014-	2004-2005 Member	
	2014- Member	
2005	Faculty Development Program for Physicians	Harvard Medical School
	and Scientists	
	2005 Participant	
2008-	Longitudinal Medical Record Expert Panel	Brigham and Women's Hospital
	2008- Member	
2008-	Dana-Farber/Harvard Cancer Center Outcomes	Dana-Farber/Harvard Cancer Center
	Research Program	
	2008- Member	
	2013- Co-Program Leader	
2009-2010	BWH Faculty Mentoring Leadership Program	Brigham and Women's Hospital
	2009-2010 Participant	
2010-	Population Sciences Core Scientific Advisory	Dana-Farber Cancer Center
	Board	
	2010- Member	
2010-	Crimson Care Collaborative Scientific Advisory	Harvard Medical School
	Board	
	2010- Member	
2010-2011	Faculty Search Committee, Department of	Harvard Medical School
2013-2014,	Health Care Policy	
2016-2017	2010-2011 Member	
	2013-2014 Member	
	2016-2017 Member	
2011, 2015	Harvard Medical School Honors Committee	Harvard Medical School
	2011, 2015 Expert reader/examiner	
2011-	Joint Committee on the Status of Women	Harvard Medical School
	2011- Member	
2011-	Advisory Committee on Health Policy and	Harvard Medical School
	Health Services Research, Scholars in Medicine	
	Program	
	2011- Member	
2012-2017	Program in Cancer Outcomes Research	Dana-Farber/Harvard Cancer Center
	Training Fellowship Advisory Committee	
	2012-2017 Member	
2012-	Primary Care Collaborative	Phyllis Jen Center, Brigham and Women's
	2012- Team Leader	and Harvard Medical School
2013, 2015,	Student Honors Thesis Committee	Harvard Medical School
2016	2013 Member	
	2015 Member	

	2016 Member	
2013	Quality of Care Task Force	Dana-Farber/Brigham and Women's Cancer
	2013 Member	Center
2015-	Committee to Review Interim Title IX	Harvard Medical School
	Procedures with Respect to the Faculty of	
	Medicine	
	2015- Member	
2015-	Harvard Medical School Council of Mentors	Harvard Medical School
2015 2010	2015- Member	T 10 1 10 1 1
2015-2018	Standing Committee on Promotions,	Harvard Medical School
	Reappointments, and Appointments 2015-2018 Member	
2015-2016		Maggachusatta Canaral Hagnital
2013-2010	Faculty Search Committee, Peter L. Goss Chair in General Internal Medicine	Massachusetts General Hospital
	2015-2016 Member	
2016	Harvard Tenure Review Ad Hoc Committee	Harvard University
2010	2016 Member	Trai vara Oniversity
2016-2017	Faculty Search Committee, Department of	Harvard Medical School
	Health Care Policy	
	2016-2017 Member	
2017-2018	Task Force on Promotion Criteria for Clinical	Harvard Medical School
	Expertise and Innovation and Teaching and	
	Educational Leadership	
	2017-2018 Member	
	2017-2018 Subcommittee Chair	
2017-	External Advisory Committee for NCI T32	Massachusetts General Hospital Cancer
	"Training Program in Cancer Biology"	Center
2017 2010	2017 Member	M 1
2017-2018	Faculty Search Committee, Director of the Mongan Institute	Massachusetts General Hospital
	2017-2018 Member	
2018-	Selection Committee, Program Award for	Harvard Medical School
2010	Culture of Excellence in Mentoring	Tial vara intedieur Seneor
	2018- Member	
2018-2021	Subcommittee of Professors Promotions	Harvard Medical School
	Committee	
	2018- Member	
2018-	Connors Center First-in-Women Precision	Brigham and Women's Hospital Connors
	Medicine Platform	Center for Women's Health and Gender
	Expert Consultant	Biology
2019	Selection Committee, Program Award for	Harvard Medical School
	Excellence in Culture of Mentoring Awards	
2021	2019 Member	II
2021	Anti-Bullying Policy Working Group	Harvard University
2021	2021 Member Breast Program Retreat: Clinical Research in	Dana-Farber/Harvard Cancer Center
∠U∠ I	Breast Cancer: Prioritizing Diversity,	Dana-Paroci/Harvaru Cancer Center
	Maximizing Inclusion, Making it Happen	
	2021 Co-Chair	

2021-2022	Faculty Search Committee, Director of the Center for Health Equity Research 2021-2022 Member	Beth Israel Deaconess Medical Center
2021-2022	Faculty Search Committee, Junior Faculty Member 2021-2022 Member	Dana-Farber Cancer Institute Division of Population Sciences
2021-	Equitable Patient Care Change Group 2021-2022 Member	Department of Medicine, Brigham and Women's Hospital
2021-	Harvard University Standing Committee on Health Policy 2021- Member	Harvard University
2024-2025	Professor of Clinical X Promotions Committee 2024-2025 Member	Harvard Medical School
Regional		
2005-2007	Evaluation Project Expert Panel 2005-2007 Member	Massachusetts Women's Health Network
2016-	Massachusetts Cancer Registry Advisory Committee	Massachusetts Cancer Registry
	2016- Member	
National		
2000-2003	Selection Committee 2000-2003 Member	Blue Cross Blue Shield National Awards for Best Practices
2004-2006	Breast Cancer Technical Panel 2004-2006 Member	National Quality Forum
2005	Evidence-Based Practice Center: The Periodic Health Exam  2005 Technical Expert	Johns Hopkins University
2008-	National Comprehensive Cancer Network Senior Oncology Guideline Panel 2008- Panel Member	National Comprehensive Cancer Network
2008	Writing Group for the American Heart Association Scientific Statement on Androgen Deprivation Therapy and Cardiovascular Risk	American Heart Association
2010	2008 Panel Member NIH State-of-the-Science Conference: Enhancing Use and Quality of Colorectal Cancer Screening	National Institutes of Health
2010-2013	2010 Panel Member Blue Cross and Blue Shield Association Blue Distinction Cancer Recognition Programs	Blue Cross and Blue Shield Association
2010-2017	2010-2013 Consultant Panel Member Androgen Deprivation Therapy for Prostate Cancer	Informed Medical Decisions Foundation
2011-2014	2010-2017 Medical Editor Clinical Practice Guidelines Committee 2011-2014 Panel Member	American Society of Clinical Oncology
2012	Provider Survey Initiative Expert Panel 2012 Panel Member	National Cancer Institute

2013-2017	Cancer Research Network External Advisory Panel	Cancer Research Network
2013-2014	2013-2017 Panel Member External Scientific Peer Review Committee, Surveillance & Health Services Research Program	American Cancer Society
2013	2013-2014 Panel Member Economics of Innovation Workgroup 2013 Panel Member	Leukemia and Lymphoma Society
2014-2015	Review of Clinical Guidance for the Care of Health Conditions Identified by the Camp Lejeune Legislation 2014-2015 Committee Member	Institute of Medicine
2014-	Early Detection & Screening Section for Susan G Komen's consumer education website Understanding Breast Cancer  2014-	Susan G Komen for the Cure Foundation
2014-2015	Advisory Board on Prostate Cancer Survivorship 2014-2015 Member	Prostate Cancer Foundation
2015-2016	Search Committee, National Cancer Institute Associate Director for Healthcare Delivery Research Program	National Cancer Institute
2015-2017	2015- 2016 Member External Advisory Panel for "The National Survey of Precision Medicine in Cancer Treatment"	National Cancer Institute
2018	2015- 2017 Member Alumni Awards Committee 2018 Member	University of Chicago
2018-	Alumni Senate 2018- Member	University of Chicago Alumni Association
2018-2019	Oncology Quality Measure Development National Advisory Board 2018-2019 Member	Tufts Medical Center
2019-	Technical Expert Panel on Patient Attribution 2019- Member	Alliance of Dedicated Cancer Centers (ADCC) Quality
2019-2021	Data Safety and Monitoring Board 2019-2021 Member	Leveraging the Electronic Health Record to Nudge Clinicians to Prescribe Evidence- Based Statin Medications to Reduce the Risk of Cardiovascular Disease
2019-	External Advisory Board 2019- Member	University of Michigan Rogel Cancer Center
2019-2021	Committee on Diagnosing and Treating Adult Cancers 2019-2021 Member	National Academies of Sciences, Engineering, and Medicine
2020	Economics of Cancer Care: Survivorship/Supportive Care Working Group 2020 Member	National Cancer Institute

2021	Systems Science & Design Committee to Expand Blumberg Distinguished Professorships Program	Johns Hopkins University
2021	National Academy of Medicine Workshop Proceedings: Addressing the Adverse Consequences of Cancer Treatment Reviewer	National Academy of Medicine
2022	PhD external examiner	Dartmouth University
2023-	Quality Measures Concept Development Panel 2023- Member	Society for Immunotherapy of Cancer (SITC)
2023-	University of Chicago Alumni Senate 2023- Member	University of Chicago Pritzker School of Medicine
2023	Collaborative Cancer Health Economics Research Conference Planning Committee 2023 Member	National Cancer Institute
2024	Cancer Health Economics Research Planning Group 2024 Member	National Cancer Institute
2024	National Academies of Science, Engineering, and Medicine Workshop Proceedings:, Assessing and Advancing Progress in the Delivery of High-Quality Cancer Care Reviewer	National Academies of Science, Engineering, and Medicine
2024	Preventing and Improving Clinical Encounters: Sparking National Discussion to Strengthen Health Research 2024 Reviewer	Doris Duke Charitable Foundation Collective to Strengthen Pathways for Health Research
International		Collective to Strengthen Pathways for Health Research
2010-2014	Global Task Force on Expanded Access to Cancer Care and Control in the Developing World	Global Task Force on Expanded Access to Cancer Care and Control in the Developing World
2014-	2010-2014 Technical Advisory Committee Commission on Global Access to Pain Control and Palliative Care 2014- Scientific Advisory Committee	Harvard Global Equity Initiative and the Lancet
2015	Expert Panel, Breast Cancer Awareness Initiative in China 2015 Panel Member	Harvard Global Equity Initiative and the Susan G. Komen Foundation
2017-	Academic Reference Group Panel 2017- Panel Member	International Cancer Benchmarking Partnership
2021-2024	Lancet Commission on Cancer and Health Systems 2021-2024 Commissioner	Lancet
2024	Scientific Advisory Board 2024 Member	Center for Research in Epidemiology and Public Health, Paul Brousse Bat Hospital, France

# **Professional Societies**

1993-1999, 2007-	<b>American M</b> 1993-1999 2007-	edical Association  Member  Member
1993-		ts Medical Society
	1993-	Member
1996-	Society of Go	eneral Internal Medicine
1,,,0	1996-	Member
	1999-	Annual Meeting Scientific Abstract Selection Committee (subcommittee
		chair or co-chair in 2002, 2004-2005, 2008, 2010-2012, 2014, 2016)
	2000-	Annual Meeting Workshop Review Committee
	2001-2012, 2014-2017	Judge, Associates Award and Junior Faculty Award
	2003-2004	Program Chair, 27 <sup>th</sup> Annual Meeting
	2004-2009	Coordinator, ABIM Continuous Professional Development Self-
		Evaluation Process Session at Annual Meeting
	2006, 2014,	SGIM Outstanding Junior Investigator Award Committee
	2015	
	2007-2009	Member, Finance Committee
	2008	Member, Elnora Rhodes Award Selection Committee
	2008-	Mentor, One-on-One Mentoring Program at Annual Meeting
	2009-2012	Elected representative, Council
	2009-2011	Member, Capital Campaign Committee
	2009-2012	Council Liaison, Evidence Based Medicine Task Force
	2009-2010	Council Liaison, Geriatrics Task Force
	2010-2012	Council Liaison, Research Committee
	2011, 2019	Member, Glaser Award Selection Committee
	2012-	Member, Health Policy Committee
	2013-	Member, Health Policy Executive Committee
	2013-2015, 2020-	Co-chair, Research Subcommittee, Health Policy Committee
	2020-	Chair, Research Subcommittee, Health Policy Committee
	2013-2019	Program Faculty, Leadership in Health Policy (LEAHP) Program
1996-	American Co	ollege of Physicians
	1996-2006	Member
	2006-	Fellow
1997-	Academy He	ealth (prior Association for Health Services Research)
	1997-	Member
	2006, 2008, 2009	Annual Meeting Scientific Abstract Selection Committee
2007-	American So	ociety of Clinical Oncology
	2007-	Member

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2011-2014 Clinical Practice Guidelines Committee Member

2010- American Cancer Society Cancer Action Network

2010- Member

**2011-** American Society for Clinical Investigation

2011- Member

2012- Abstract reviewer

2017- Association of American Physicians

2017- Member

**2019- International Society of Geriatric Oncology** 

2019- Member

### **Grant Review Activities**

2002,2003, 2005	Scientific Re 2002, 2005 2003	eview Committee Ad-hoc Grant Reviewer Grant Reviewer	California Breast Cancer Research Program
2002	Scientific Re 2002	eview Committee Ad-hoc Grant Reviewer	National Cancer Institute
2005	Special Emp	hasis Panel	CDC National Center for Chronic Disease
	2005	Grant Reviewer	Prevention & Health Promotion
2006-2007	Psychosocial Committee 2006-2007	l and Behavioral Research Review  Member	American Cancer Society
2007-2011	Health Servi Committee 2007-2010 2010-2011	ces Research Scientific Review  Member  Ad-hoc Grant Reviewer	American Cancer Society
2008	Challenge A 2008	ward Scientific Review Committee Member	Prostate Cancer Foundation
2010		hasis Panel "Methodology and t in the Behavioral and Social Sciences" Grant Reviewer	National Institutes of Health
2010	Scientific Re 2010	eview Committee Ad-hoc Grant Reviewer	Dutch Cancer Society
2011-2012	Cancer Risk 2011	and Disparities Program Review Panel Co-Chair	Dana-Farber/Harvard Cancer Center

	2012	Grant Reviewer	
2012		alyst Advanced Imaging Pilot Research Concept Development Awards Program Grant Reviewer	Harvard Catalyst
2012		eview Committee, "Applying Economics to Perplexing Health and Problems" Grant reviewer	Robert Wood Johnson
2012-		eview Committee, Dana- ard Cancer Center U54 Partnership m Grant reviewer Grant reviewer	Dana-Farber/Harvard Cancer Center
2013	Scientific Re Award 2013	eview Committee, Young Investigator  Grant reviewer	Prostate Cancer Foundation
2016	Special Emp Questions #2 2016	phasis Panel, NCI Provocative 12 Grant reviewer	National Cancer Institute
2019	entitled "NC Program (No	eview Committee, RFA-CA-18-017 CI Community Oncology Research CORP) Minority/Underserved Sites (UG1 Clinical Trial Required)" Grant reviewer	National Cancer Institute
2020		eview Committee, Pennsylvania of Health Final Performance Reviews OA) Grant reviewer	Pennsylvania Department of Public Health
2021	entitled "The	eview Committee, RFA-CA-20-048 e NCI Predoctoral to Postdoctoral sition Award (F99/K00)" Grant reviewer	National Cancer Institute
2023	DF/HCC Inc 2023	cubator Grant Reviewer Proposal reviewer	Dana-Farber/Harvard Cancer Center

# **Editorial Activities**

Ad hoc Reviewer (reviews since late 2017 accessible on publons.com)

Health Affairs Western Journal of Medicine Journal of General Internal Medicine

Cancer

Health Services Research

Medical Care

Journal of Clinical Oncology

American Journal of Medicine

Milbank Quarterly

Journal of the American Medical Association

Annals of Internal Medicine Annals of Family Medicine

International Journal for Quality in Health Care

JAMA Internal Medicine

Diabetes Care

American Journal of Managed Care

Journal of Palliative Medicine

New England Journal of Medicine

Journal of the National Cancer Institute

Medical Decision Making

Journal of Geriatric Oncology

Urology

Circulation

International Journal of Radiation Oncology, Biology, Physics

Cancer Epidemiology, Biomarkers, and Prevention

JAMA Psychiatry

Healthcare: The Journal of Delivery Science and Innovation

Journal of Pain and Symptom Management

JAMA Oncology

Lancet Oncology

Prostate Cancer and Prostatic Diseases

Annals of Surgical Oncology

Journal of Cancer Survivorship: Research and Practice

Care Act and Cancer Care

PLOS-ONE

JCO Clinical Cancer Informatics

Journal of Global Oncology

Journal of Women's Health

The BMJ

Journal of Oncology Practice

**PNAS** 

Annals of Family Medicine

#### Other Editorial Roles

2004-2012	Member, Editorial Board	Harvard Health Letter
2007-2010	Member, Editorial Board	Journal of Clinical Oncology
2011-20224	Member, Editorial Board	Journal of Geriatric Oncology
2012-	Member, Advisory Board	Harvard Medical School Newsletters for the Public
2015-	Associate Editor	Journal of the National Cancer Institute
2016-2017	Guest Editor: The Affordable	The Cancer Journal

2021-	Member, Advisory Board	Journal of Geriatric Oncology
2023-	Member, Editorial Board	Annals of Internal Medicine
2025-2027	Member, Editorial Board	Journal of Clinical Oncology

# **Honors and Prizes**

•	1000			
	1988	Phi Beta Kappa	Virginia Tech	
	1989	Outstanding Senior in Department of Biochemistry	Virginia Tech	
	1989	B.S. Summa Cum Laude	Virginia Tech	
	1990	Ciba Geigy Research Award	University of Chicago	
	1991	Research Award	International Society for Cardiovascular Surgery	
	1992	Alpha Omega Alpha Honor Society	University of Chicago	
	1993	Award for Scholastic Achievement	American Medical	
			Women's Association	
	1993	Joseph A. Capps Award for Outstanding Proficiency in Clinical Medicine	University of Chicago	Outstanding Clinical Achievement
	1997	Mack Lipkin Sr. Associates Award	Society of General	Outstanding Research
		•	Internal Medicine	Presentation at National Meeting
	1999	Clinical Scientist Award	Doris Duke Charitable Foundation	National Research Award
	2000	Milton Hamolsky Junior Faculty Award	Society of General	Outstanding Research
			Internal Medicine	Presentation at National Meeting
	2002	Author of "Best of JGIM" article	Journal of General	Recognition of one of
			Internal Medicine	most accessed articles
	2005	Outstanding Junior Investigator of the	Society of General	
		Year	Internal Medicine	
	2006	Fellow, American College of Physicians	American College of Physicians	
	2010	American Society for Clinical	American Society for	Honor society of young
		Investigation	Clinical Investigation	physician-scientists
	2011, 2013, 2015, 2017	Excellence in Tutoring Award	Harvard Medical School	Recognition of outstanding tutorial facilitation, Health Policy 750
	2015	A. Clifford Barger Excellence in	Harvard Medical School	Recognition of outstanding
	2015	Mentoring Award	That varia tyleatear School	mentoring
	2015	Nominee, Excellence in Mentoring	Brigham and Women's	Recognition of outstanding
		Award	Hospital	mentoring
	2016	Visiting Professor in Cancer Outcomes and Health Services Research	Johns Hopkins University	8
	2016	Author of one of "Top Cited Articles of	Journal of the National	Recognition of one of
		2013"	Cancer Institute	journal's most cited articles
	2016	Best Abstract in Aging, Disability, and End of Life	Academy Health	j
	2017	Top Performing Reviewer for Cancer	Cancer	Top 2% of reviewers in period 9/1/16-8/31/17

2017	Association of American Physicians	Association of American Physicians	Honor society of senior physician-scientists
2018	Nominee, Distinguished Service Award	University of Chicago Alumni Association	Recognition of alumni who has brought honor and distinction to University of Chicago
2019	Top Ten Article of 2018	Health Affairs	Recognition of article as one of 10 best published by Health Affairs in 2018
2022	Charles Donahue Lecture	Boston University School of Public Health	Presentation at endowed annual lectureship
2022	SGIM John M. Eisenberg Award for Career Achievement in Research	Society of General Internal Medicine	•
2022	Top Ten Article of 2022	Health Affairs	Recognition of article as one of 10 best published by Health Affairs in 2022
2023	AcademyHealth Paper of the Year Award	AcademyHealth	•
2023	Paragon Award for Research Excellence	Doris Duke Foundation	Recognizes prior grantees who have significantly advanced knowledge or improved patient outcomes

# **Report of Funded and Unfunded Projects**

# **Funding Information**

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Past					
1996-1998	PI	Brigham and Women's Hospital The Primary Care Education Fund	\$3782		
	Physicians Experie	ences and Beliefs Regarding Informal Consultation	on		
		vide sample of physicians about use of informal of			
1998-1999	Research Fellow	Prudential Health Care	\$50,000		
		Prudential Health Services Research	* /		
		Fellowship			
	Patients' experiences with ambulatory care and trust				
		ents' experiences with their physicians are associa	ated with trust in their		
1999-2001	Co-investigator	Agency for Health Care Policy and Research and American Association of Health Plans U01 HS09936 and HS 98-005			
	Effect of Health Plans on Hypertension and Diabetes Care				
	Survey of patients with diabetes or hypertension and their physicians and medical record				
	• 1	ntify physician and organizational factors associa			

began as co-investigator and played a major role in instrument design, then took over as PI after illness of original PI.

1999-2002 PI Doris Duke Charitable Foundation

\$300,000

Doris Duke Charitable Foundation Clinical

Scientist Award (19991079)

Effect of Physician Specialty on Quality of Breast Cancer Care

Examined the providers from whom women with breast cancer receive care and assessed the association of providers seen with stage at diagnosis, primary treatment, and surveillance care.

2001-2005

Acting PI National Cancer Institute

\$665,935

1 R01 CA92588-01

Managed Care Penetration and Cancer Care

Examined the association of increasing managed care penetration and spillover effects on quality of care for patients with cancer and on choice of treatments. I began as co-investigator and played a major role in instrument design, then took over as PI after illness of original PI.

2001-2013

Co-investigator Nationa

National Cancer Institute

U01 CA93324-01

Cancer Care Outcomes Research & Surveillance Consortium (Ayanian, PI)

Multiregional study of patients with incident lung or colorectal cancer, including patient survey, physician survey, medical record abstraction, claims analyses. I led development and implementation of a physician survey of more than 7000 physicians across the consortium and participated actively in data collection for our study site. In a second phase of data collection, I led the development and implementation of a survey of more than 700 medical oncologists.

2002-2004

PΙ

Brigham and Women's Hospital

\$1,870

The Primary Care Education Fund

Transfer of Information Via Social Networks

Survey of primary care physicians at BWH to understand how physicians share information.

2003-2005

PΙ

Doris Duke Charitable Foundation

\$200,000

Doris Duke Charitable Foundation Clinical

Scientist Award (T99040C)

Effect of Physician Specialty on Hospice Use in Breast Cancer

Examined the providers from whom women with advanced breast cancer receive care and assessed the association of providers seen with hospice use at the end of life.

2004-2007

PΙ

SPORE, National Cancer Institute

\$109,544

5 P50 CA090381-03

Cancer Survivorship in Men with Prostate Cancer

Examined the association of androgen deprivation therapy for prostate cancer with development of diabetes and cardiovascular disease.

2004-2007

PΙ

Novartis

\$174,164

ZOL446G US94

Cancer-therapy Induced Bone Loss and Fracture Risk among Men with Prostate Cancer (NL Keating, PI)

Examined the association of androgen deprivation therapy and radiation therapy for prostate cancer with development of fracture.

2005-2009

PΙ National Cancer Institute \$1,045,476

R01 CA104118

Long-term Outcomes of Breast Cancer Treatment in Community Populations

Assessing long-term survival after primary breast cancer treatments among patients outside of

clinical trials.

2005-2010 Co-PI Veterans Health Administration

\$554,615

Federal Contract 15592/18866

Study of Cancer Care in the Veterans Health Administration (BJ McNeil, PI)

Evaluation of quality of care delivered to veterans with cancer in the Veterans Health

Administration.

PΙ

ΡI

2008-2012

National Cancer Institute

\$686,902

R01 CA127652

Fractures, Heart Disease, and Stroke on Aromatase Inhibitors (NL Keating, PI)

Assessing the association of aromatase inhibitor therapy and tamoxifen for breast cancer with myocardial infarction, stroke, and fractures among community populations of women.

2008-2013

Komen Foundation

\$300,000

Foundation Research Grant

Disparities in Breast Cancer and Providers of Care

Assessing the role of hospitals and physicians in explaining variations in quality of care for

breast cancer.

2008-2013

Co-investigator

National Institute of Aging

P01 AG0309301

Networks and Neighborhoods (N Christakis, PI)

This work will empirically define networks of physicians based on shared patients and will assess whether sharing of information via physician networks is likely to explain local area

variations in medical care.

2010-2011

ΡI Harvard Catalyst | The Harvard Clinical and \$50,000

Translational Science Center NIH Award UL1 RR 025758

Improving Breast Cancer Diagnosis and Care in Mexico

This work will improve awareness of breast health and breast cancer through training of health promoters in the states of Morelos, Jalisco, and Nuevo Leon. It also seeks to improve delivery of cancer care by providing cancer treatment in secondary hospitals with close supervision by physicians at tertiary hospitals.

2010-2012

PΙ

American Cancer Society

\$400,000

Foundation Grant RSGI-09-269-01-CPHPS

Effect of Massachusetts Health Insurance Reform on Breast Cancer Screening and Diagnosis

Assessing the influence of health insurance reform in Massachusetts on mammography screening and earlier stage at breast cancer diagnosis for women in Massachusetts.

2010-2013 Co-investigator National Cancer Institute R01CA142744

Use of Geographic Variations to Estimate Effectiveness with Non-Randomized Data (Landrum, PI)

Evaluation of effectiveness of many common cancer therapies using advanced statistical methods. The methods developed will be applicable to a broad range of interventions for cancer and other diseases, providing a framework for future analyses of comparative effectiveness needed for the design and implementation of health reforms

2011-2014 PI Dana-Farber Cancer Institute Mazzone \$100,000 Disparity Award

Understanding Racial Differences in Prostate Cancer Mortality

This study will use SEER-Medicare data and data from the NHANES study to better understand disparities in prostate cancer mortality. We will first decompose the racial gap in prostate cancer mortality into differential incidence and stage-specific survival and to understand reasons for these differences. Then we will explore the consequences of differential intake of vitamin D on prostate cancer incidence and mortality.

2008-2015 PI Prostate Cancer Foundation \$450,000 Foundation Research Grant

Prevention of Treatment and Disease-Related Morbidity during Androgen Deprivation Therapy: A Multicenter Proposal

Examine the association of androgen deprivation therapy for prostate cancer with development of diabetes and cardiovascular disease in another cohort and identify characteristics of patients at highest risk of disease.

2010-2015 PI, subcontract National Cancer Institute R01CA106370

Black-White Differences in Advanced Cancer Communication, Acceptance and Care (Prigerson, PI)

The study will assess how communication processes and communication goals influence racial disparities in EOL care, specifically assessing 1) communication processes; 2) communication goals; and 3) the effect of communication processes and communication goals on clinical outcomes at the EOL.

2012-2016 PI National Cancer Institute \$1,515,715 1R01CA164021-01A1

Explaining Variations in End-of-Life Care Intensity

Understand the relative contribution of patient, physician, and area-level factors in explaining variations in intensity of end of life care.

2014-2016 PI, subcontract American Cancer Society
Research Scholar Grant
Impact of Parity Legislation on Use and Costs of Oral Cancer Medications

This proposal will use data from the Health Care Cost Institute and a difference-indifference-in difference design to understand the effect of state cancer parity legislation on use and spending on oral cancer medications.

2013-2018 Co-investigator National Institute of Mental Health U01MH103018 (Normand/Huskamp)

Technology Diffusion under New Payment and Delivery Models

This study will conduct an in-depth investigation of the patterns of diffusion of new technologies, including drugs, biologics, and devices, across organizations of different types, and assess the effects of a new model for organizing and financing health care that is encouraged under the Affordable Care Act (ACA) of 2010 – risk-based payments made to accountable care organizations (ACOs) – on spending for new technologies.

2013-2017 PI, subcontract National Cancer Institute R21CA172892

Linking State Registry and All Payer Claims Data to Study Cancer Care
The Massachusetts Executive Office of Health and Human Services and the Massachusetts
Health Quality Partners represent key public and private stakeholders, respectively, who are
committed to using the results of our analyses to further public health policy goals for
improving the value of cancer care. The methods and results of this project can be employed
to monitor the quality and costs of cancer care in Massachusetts and to guide efforts by
consumers, payers and purchasers to evaluate provider networks or other comparable
provider organizations. Our project will also provide a model to guide state policymakers
and health-care systems in many other states that are developing comparable all-payer claims
databases.

2013-2019 Multiple PI National Cancer Institute 1R01CA174468

\$1,834,536

Social Networks and the Spread of Cancer Care Practices

Develop a longitudinal database of physician networks over time and describe physician networks to understand diffusion of cancer care practices across these networks.

2014-2020 PI National Cancer Institute K24CA181510

\$816,771

Behavioral Economics and Improving Chemotherapy Decisions for Advanced Cancer This is a mid-career mentorship award. I will mentor trainees and develop new skills in behavioral economics and intervention research. I will lead a project to improve decisions about chemotherapy for women with advanced breast and ovarian cancers.

2017-2020 Project PI Laura and John Arnold Foundation

\$1,037,021

Improving Feasibility and Efficiency of Quality Measurement in Oncology Practices This project will first estimate the extent to which claims-based measures of quality for practices (with and without clinical information about cancer stage and other tumor characteristics from registry data) correlate with practice-reported measures of oncology care quality. Next, for measures of quality for which supplemental clinical data are needed, assess the extent to which adaptive quality measurement strategies that focus primarily on identifying the providers who are delivering the highest- and lowest-quality care would be a

more feasible and efficient strategy for assessing (and rewarding) quality of care delivered by oncology providers than measuring quality for all oncology practices.

2018-2020

PI, subcontract Leukemia and Lymphoma Society/ The Commonwealth Fund (PI: Dusetzina)

Identifying Cost and Coverage Barriers to Medicare Beneficiary Access to Specialty Drugs This study will first describe trends in drug prices, Part D plan coverage, and cost sharing requirements for specialty drugs from 2010 through 2019. Next, it will leverage linked electronic health record networks and fee-for-service Medicare claims to observe both physician prescribing and patient medication filling at the population level, along with clinically relevant outcomes for patients. From this novel data source, we will estimate rates of nonadherence to specialty medications for Part D beneficiaries and whether nonadherence varies by drug price within and across conditions. Finally, we will examine the association between not starting or experiencing delays in starting therapy on key clinical outcomes and Medicare spending.

2019-2021

PI, Subcontract NCI

R21CA227615-01 (PI: Freedman)

Individualizing Surveillance Mammography for Older Breast Cancer Survivors
This study will develop consensus on surveillance mammography and follow-up for breast
cancer survivors who are age ≥75 years by further developing expert-panel recommendations
and examining clinician and patient attitudes towards these recommendations. We will then
apply a framework for decisional support to address decisional conflict on mammography
decision-making and will test a strategy for communication of expert recommendations on
mammography cessation through direct engagement of specialists, PCs, and patients.

2015-2021

Co-investigator National Institute on Aging

1R01CA189152-01A1 (PI:McWilliams/Graves)

Effects of Expanded Coverage on Access, Health Care and Health in the South This project will provide timely and rigorous analysis of the effect of health insurance coverage expansions on health care use and outcomes among a large cohort of low-income adults in 12 southeastern states (VA, WV, KY, TN, NC, SC, FL, GA, AL, MS, LA, AR). Using a quasi-experimental research design, we aim to quantify the effects of coverage expansion through Medicaid and private health insurance exchanges on access to care, cancer screening and use of preventive clinical services (Aim 1); on self-reported health outcomes, mortality and use of emergent and inpatient care (Aim 2); and on cancer stage at diagnosis and quality of cancer care (Aim 3).

2018-2021

PΙ

American Cancer Society PEP-17-052-01-PCSM

\$132,800

More Good Days: Improving Goals of Care Discussions for Cancer Patients
The goal of this study is to conduct a pilot test of an intervention that seeks to help patients
identify and communicate their goals of care and preferences for care with their health care
team. The intervention involves a 2.5 minute video, a brief questionnaire, and a wallet card
that will be shared with patients who may be making decisions about cancer treatment after
progressing on prior non-curative chemotherapy or whose physicians would not be surprised
if the patient died within 6 months. By improving communication with care providers, these

tools can help clinicians attend to aspects of care that are important to patients, thus improving the experiences of patients with advanced cancer at the end of life.

2015-2023 Co-investigator Agency for Health Care Research and Quality U19HS024072 (PI: Cutler, David)

Measuring the Clinical and Economic Outcomes Associated with Delivery Systems To determine whether differences in the delivery of evidence-based care processes and clinical and economic outcomes can be explained by characteristics of organizations that can be understood and modified, or whether such outcomes are 'residual' characteristics of organizations that are hard to transfer.

2019-2024 Co-Investigator AHRQ R01HS026498

Comparing Targeted and Non-Targeted Approaches to Improving the Value of Cancer Care Services

This project aims to study the extent to which a general payment reform approach designed to improve overall the value of care delivered impacts the delivery of cancer care services and how this compares to a targeted approach. Our work will provide important evidence comparing these strategies, while also confirming that organizations participating in these payment reform models are not stinting on the provision of appropriate services.

2020-2023 PI, Subcontract Commonwealth Fund/Arnold Ventures (PI: Dusetzina)

Identifying Cost and Coverage Barriers to Medicare Beneficiary Access to Specialty Drugs We will first describe trends in drug prices, Part D plan coverage, and cost sharing requirements for specialty drugs used for rheumatoid arthritis, multiple sclerosis, HIV, cancer, and hepatitis C from 2010 through 2019. Next, we will leverage linked electronic health record networks and fee-for-service Medicare claims to observe both physician prescribing and patient medication filling at the population level, along with clinically relevant outcomes for patients. From this novel data source, we will estimate rates of nonadherence to specialty medications for Part D beneficiaries and whether nonadherence varies by drug price within and across conditions, given the relationship between price and out-of-pocket spending for products with percentage-based cost sharing. Finally, we will examine the association between not starting or experiencing delays in starting therapy on key clinical outcomes and Medicare spending

2021-2023 PI Harvard/Ariadne Spark Innovation Program \$160,000 No grant number

Improving Equity in the Quality of Oncology Care with Practice Feedback
This study will develop an audit-and-feedback intervention to provide actionable race-specific data to oncology practices about their performance in delivering equitable and high-quality care to Black and White oncology patients relative to other oncology practices. If we demonstrate feasibility and acceptability in this pilot project, we will pursue further funding to ultimately test whether this invention reduces practice-level measures of inequities while improving care overall in a large randomized clinical trial.

Current

2024-2029 Multi PI NCI

#### 1P01CA281850-01A1

\$13,925,173

Understanding Integration in Oncology Care and Association with Quality and Outcomes Ownership changes among care delivery organizations have increased substantially in the past decade, particularly in oncology across different types of organization types. Yet, ownership changes reflect only one aspect of structural integration; structural features such as co-location, referral networks, and geographic reach also influence care delivery. Moreover, other forms of integration, including functional, normative, inter-personal, and process integration, also are important for organizations to provide integrated care. This program project is a novel research effort with four interrelated Projects pertaining to types of organizations that deliver oncology care (health systems, independent oncology practices, post-acute care and hospice organizations, and specialty pharmacies) to understand features of care integration that are associated with higher-quality care delivery, more equitable care, and better outcomes for individuals with cancer.

2015-2024

Clinical Lead Center for Medicare and Medicaid Services

PI, subcontract No grant number

\$3,403,531

Evaluation of the Oncology Care Model

CMS is launching the Oncology Care Model demonstration project, with a goal of improving the effectiveness and efficiency of specialty care. The model will pay oncology practices \$160 enhanced care management payment per 6-month episode of chemotherapy combined with performance-based shared savings if spending targets are reached. We will work with colleagues at Abt Associates and The Lewin Group to assess the impact of the program on utilization, spending, quality, and patient- and provider-reported experiences.

2020-2025

PI NCI R01CA255035 \$2,492,365

The Impact of a Changing Health Care Delivery System on the Quality of Oncology Care This study will examine changes in the delivery of oncology care over time and the impact of these changes on the quality of care, diffusion of new therapies, health care utilization, and outcomes for cancer patients overall and for vulnerable/disadvantaged subgroups. The findings will provide oncology practitioners, payers, and policy makers valuable information to improve access, quality and outcomes of cancer care. Our results also will inform policies and practices related to the value of integration of oncology care, quality measurement, design of alternative payment models, and development of innovative delivery models to care for vulnerable/disadvantaged populations.

2023-2028

PI, subcontract NCI

PI: Offodile R37CA276322

Examining the Effects of Global Budget Revenue Program on the Costs and Quality of Care Provided to Cancer Patients Undergoing Chemotherapy

The objective of this proposal is to systematically examine, via a difference-in-differences design, the impact of the Global Budget Revenue (GBR) model on spending, quality-of-care, and utilization among fee-for-service Medicare beneficiaries and nonelderly Medicaid beneficiaries with cancer in Maryland compared with similar patients in control states. Our central hypothesis is that the financial incentives in GBR will lower spending, improve care quality, and facilitate a shift in the site of care for chemotherapy administration across our populations of interest. Additionally, we hypothesize that GBR implementation will lead to relatively worse clinical outcomes and relatively greater spending for historically marginalized patients.

2020-2025 PI, subcontract NCI

PI: R01CA279414

Enzinger/Wright

A Multi-Level Examination of the Influences of Racism on Cancer Pain Equity
This study will link administrative data to comprehensive information about clinicians,
practices, health systems, and neighborhoods to provide a comprehensive analysis of
inequities in opioid access among Black, Hispanic, Asian, and non-Hispanic White Medicare
and Medicaid-insured patients across the cancer trajectory, including post-operative, active
treatment, survivorship and end-of-life phases of care.

2023-2027 PI, subcontract Dept of Veterans Affairs

PI: Hofer/Kerr No grant number

Assessing Quality of VA and Community Care in the MISSION Era

The goal of this project is to compare quality of cancer care for Veterans whose care is provided solely in VA, to those who receive all or part of their care through community care, and to Veterans and non-Veterans who receive cancer care through Medicare.

2022-2026 PI, subcontract NIA

PI: Barnett R01AG076580

Physician Subspecialization and the Health and Health Care of Older Americans
The objective of this proposal is to use new methods to empirically define subspecialization
by observable physician practice and then quantify its implications for older adults' access to
care and health outcomes. We will focus on three key specialties for older adults (cardiology,
medical oncology, and general surgery) as examples, but our approach can generalize to any
specialty.

#### **Training Grants and Mentored Training Grants**

2012-2017 Program in Cancer Outcomes Research Training

National Cancer Institute (R25)

Advisory Committee Member (PI: G. Scott Gazelle)

2014-2018 Chemotherapy Near Death: Modifiable Factors and Outcomes in Ovarian Cancer

National Cancer Institute (K07) Primary Mentor (PI: Alexi Wright)

2015-2019 Disparities in Breast Cancer Knowledge and Treatment Adherence

American Cancer Society Mentored Research Scholar Grant

Primary Mentor (PI: Rachel Freedman)

2017- Training Program in Cancer Biology

National Cancer Institute (T32)

External Advisory Committee Member (PI: Kenneth Tanabe)

2017-2021 Improving Decisions about Dialysis Initiation in Older Adults with Kidney Disease

National Institute on Aging (K23)

Primary Mentor (PI: Melissa Wachterman)

2017-2021	An Assessment of Whether Aspirin and/or Vitamin D Improves Breast Cancer Outcomes in Black Women and the Modifying Effects of Genetic Variants National Cancer Institute (K01) Mentoring Committee (PI: Tracy Belthea)
2018-2022	Evaluating Breast Cancer Care in Rural Rwanda National Cancer Institute (K07) Primary Mentor (PI: Lydia Pace)
2018-	Training in Oncology Population Sciences National Cancer Institute (T32) Principal Investigator (Multiple PI with Jennifer Mack, MD, MPH)
2019-2023	Obstetrical and Oncological Outcomes Among Reproductive Age Women with Gynecological and Breast Cancer National Cancer Institute (K08) Mentor (PI: Alejandro Rauh-Hain)
2019-2023	Expectations for Pediatric Cancer Treatment (EXPECT): A Family-Centered Intervention to Prepare Parents for Pediatric Leukemia National Cancer Institute (K08) Co-Mentor (PI: Katie Greenzang)
2023-	Patient Administrative Burden in Cancer Care Delivery National Cancer Institute (K99/R00) Primary Mentor (PI: Michael Anne Kyle)
2023-2028	MGH Clinical Oncology Fellowship Program T32CA071345 National Cancer Institute (T32) External Advisory Board Member
2023-2028	University of North Carolina Outcomes Research T32 (Basch/Wheeler) National Cancer Institute (T32) External Advisory Board Member
2023-2027	Assessing Variation in Outcomes for Cancer Patients Receiving Radiation Treatments and Identifying High-Value Radiation Oncology Practices National Cancer Institute (K08) Primary Mentor (PI: Miranda Lam)

# **Current Unfunded Projects**

# **Report of Local Teaching and Training**

## **Teaching of Students in Courses**

1996-1997 Primary Care Clerkship **HMS** Faculty Tutor 10 third year medical students Preparation time: not applicable; Contact time: 5 hours per month 1996-1998 Patient/Doctor I **HMS** 6 first year medical students Faculty Tutor 10 months per year Preparation time: 1 hour per week; Contact time: 2 hours/week 1998-2002 Critical Reading of the Medical Literature (AC701.0) HMS Faculty Tutor 5 months per year 8 first year medical students Preparation time: 1 hour per week; Contact time: 2 hours per 2001-Introduction to Health Care Policy (HC750) HMS 200 medical students Lecturer 1-2 lectures per year Preparation time: 6 hours; Contact time: 2-4 hours 2004 Medical Sociology Reading course Harvard University One lecture per year 8 graduate students Lecturer Preparation time: 2 hours; Contact time: 1.5 hours 2005-Introduction to Epidemiology (EPI 208) HSPH 10-15 masters students Small Group Discussion Leader 2 months per year (2-4 sessions) Preparation time: 1-2 hours, Contact time 4-8 hours 2010-2015 Introduction to Health Care Policy (HC750) HMS 8-10 medical students Tutorial Leader One month per year Preparation time: 12 hours, Contact time 12 hours 2010-Introduction to Epidemiology (EPI 208) HSPH 100 masters students Core Faculty 6 weeks per year Preparation time: 2 hours, Contact time 12 hours 2016-Essentials of Medicine: Part 1-Introduction to Health Care Policy (HC750) HMS 160 medical students Core Faculty 3 weeks per year

100 fliedical students Core Faculty 5 weeks per year

Preparation time

Preparation time: 2 hours, Contact

time 8 hours

2016- Essentials of Medicine: Part 1-Introduction to Health Care Policy

(HC750) HMS

10 medical students Tutorial Leader One month per year

Preparation time: 12 hours,

Contact time 12 hours

2016- Essentials of Medicine Health Care Policy (HC750) HMS

100 medical students Curriculum Development Board 3 weeks per year

Member Preparation time: 10 hours

2018-2020 Essentials of Medicine: Part 1-Introduction to Health Care Policy

(HC750) HMS

160 medical/dental students Course Director One month per year

Preparation time: 100 hours,

Contact time 20 hours

#### Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

"Counseling patients about breast cancer risk and breast cancer prevention"

15 residents BWH

1.5 hour lecture given twice per year

"Managed care: How do health plans influence the delivery of care?"

15 residents BWH

1.5 hour lecture given twice per year

"Reading the medical literature: How to read an article about therapy"

15 residents BWH

1.5 hour lecture given twice per year

2011- "Writing an Abstract"

15 post-doctoral Harvard General Internal Medicine Fellowship Program

fellows 1 hour lecture given once per year

2012- "Breast and Colorectal Cancer Screening"

25 residents BWH

1.5 hour lecture given 4 times per year

2013- "Benefits and Harms of Breast Cancer Screening"

25 residents BWH

1.5 hour lecture given 4 times per year

#### **Clinical Supervisory and Training Responsibilities**

Harvard Medical School Medicine 1 Clerkship, BWH 8 third year medical students

Teaching Resident 1 month per year (15 hours per week)

1996-	General Internal Medicine Clinic Attending Physician	4-5 residents 12 months per year (4 hours per week)
1997-	General Medical Service Attending Physician	2 medical students, 2 interns, 1 resident 2-4 weeks per year (20 hours per week)
1998-	General Internal Medicine Clinic Attending Physician	4-5 residents 2 weeks per year (20 hours per week)
2001-	Mentor, BWH Residency Program	Advisor for 1-2 BWH residents per year

### **Laboratory and Other Research Supervisory and Training Responsibilities**

2004- Supervision of medical student, resident, fellow, and/or junior faculty research trainees

#### **Formally Supervised Trainees**

2004-2008 Marie Norredam, M.D. Associate Professor, University of Copenhagen, Denmark Supervised work as a post-doctoral fellow studying abroad resulting in two publications.

2006-2008 Jim Hu, MD Professor of Surgery, Cornel Weill Medical College Supervised research as a junior faculty member with several publications

2006-2008 Michael Hassett, MD Associate Professor of Medicine, Dana-Farber Cancer Institute Supervised research employment among cancer survivors resulting in a publication.

2007-2008 Irwin Lee, MD Staff Physician, Santa Rosa Medical Center, Santa Rosa, CA Supervised research during a radiation oncology residency, resulting in a publication.

2007- Rachel Freedman, MD Associate Professor of Medicine, Dana-Farber Cancer Institute Supervised work during fellowship and junior faculty with numerous manuscripts, mentor for career development award.

2009 Signe Smith (Nielsen) Associate Professor, University of Copenhagen Jervelund, PhD

Supervised work during doctoral program, 1 manuscript.

2009-2010 Vinod Nambudiri, MD Assistant Professor, Brigham and Women's Hospital Supervised work during medical school thesis with 2 manuscripts.

2009-2010 Neal Chaterjee, MD Cardiologist, Seattle WA Supervised research during 4<sup>th</sup> year of medical school, 1 manuscript.

2008-2010 Christine Chung, MD Radiation Oncologist Supervised research in a co-mentorship role during residency, 1 manuscript.

- 2009- Elyse Park, PhD Professor of Psychology, Massachusetts General Hospital Supervised research as a junior faculty member with several publications
- 2010-2012 Selwyn Rogers, Jr. MD Professor of Surgery, University of Chicago Supervised research as a junior faculty member with 2 first-author publications
- 2010-2012 Jennifer Ligibel, MD Associate Professor, Dana-Farber Cancer Institute Supervised research as a junior faculty member with 2 first-author publications
- 2010-2013 Paola Friedrich, MD Assistant Member, St. Jude Faculty Member of Fellowship Scholarship Oversight Committee
- 2010- Alexi Wright, MD, MPH Associate Professor of Medicine, Dana-Farber Cancer Institute Supervised research as junior faculty member, primary mentor on K application, numerous manuscripts published
- 2010-2014 Gaby Soriano Hobbs, MD Assistant Professor of Medicine, Massachusetts General Hospital Supervised research during residency, 1 manuscript published.
- 2010-2013 Glen Taksler, PhD Associate Professor, Case Western Reserve Institute Supervised research before and during fellowship resulting in 4 manuscripts
- 2011-2014 Michael Liu, MD, PhD Statistician, Harvard Medical School Supervised research during postdoctoral fellowship. 5 manuscripts published.
- 2011-2012 Alicia Morgans, MD Associate Professor, Dana-Farber Cancer Insstitute Supervised research during fellowship, 1 manuscript published
- 2011-2015 Stacy Gray, MD Professor and Division Chief, City of Hope Supervised research as junior faculty, several manuscripts
- 2011-2016 Stacie Dusetzina, PhD Professor, Vanderbilt University Medical Center Supervised research during residency, numerous manuscripts published.
- 2011-2014 Cleo Samuel, PhD Head of Health Equity Research, Flatiron Health Doctoral thesis committee member, 3 manuscripts published
- 2012- Lydia Pace, MD, MPH Associate Professor of Medicine, Brigham and Women's Hospital Supervised research during fellowship, numerous manuscripts; primary mentor for K07 award
- 2012- Melissa Wachterman, Assistant Professor of Medicine, Brigham and Women's Hospital and MD, MPH Boston Veterans Affairs Medical Center Supervised research as junior faculty, numerous manuscripts, primary mentor for K23 award
- 2013- Robert Griffiths, PhD Senior Health Economist, Health Economics Center of Excellence at Boston Scientific

  Momber of discortation committee 5 manuscripts published
- Member of dissertation committee, 5 manuscripts published
- 2014-2015 Kenneth Kehl, MD Assistant Professor of Medicine, Dana-Farber Cancer Institute

Supervised research in year before oncology fellowship, 5 papers published

2015-2017 Lisa Rotenstein, MD, Assistant Professor of Medicine, University of California, San

MBA Francisco

Supervised research as medical student, 1 paper published

2015-2018 Aaron Winn, PhD Assistant Professor, Medical College Wisconsin

Member of dissertation committee, numerous manuscripts published

2014-2019 Loren Saulsbery, PhD Assistant Professor, University of Chicago

Member of dissertation committee and supervisor of T32 predoctoral award, 1 paper published

2015-2019 Jessica Roydhouse, PhD Senior Researcher, University of Tasmania, Australia Supervised research as a doctoral student at Brown, 4 papers published

2015- Alejandro Rauh-Hain, Assistant Professor, MD Anderson Cancer Center MD, MPH

Supervised research during Program in Cancer Outcomes Research Training T32 Fellowship, advisor on K08, numerous papers published

2015- Katie Greenzang, MD, Instructor, Dana-Farber Cancer Institute

Member of Fellowship Scholarship Oversight Committee 2015-2018; Co-mentor of K award 2019-2023

2016- Gabriel Brooks, MD, MPH Associate Professor, Dartmouth Medical School Supervised research as junior faculty, Numerous papers published and in progress

2016-2019 Hyosin Dawn Kim, PhD Research Scientist, University of Oregon Member of dissertation committee, manuscript published

2017- Alex Melamed, MD, Associate Professor, Massachusetts General Hospital MPH

Supervised research, papers in progress

2017- Tracy Belthea Assistant Professor, Boston Medical Center Member of K award Mentoring Committee

2018- Christine Gunn, PhD Assistant Professor, Boston Medical Center Member of K award Advisory Panel

2020- Miranda Lam, MD, MPH Assistant Professor of Radiation Oncology, Brigham and Women's Supervised research as junior faculty member, K mentor, papers published and in progress

2020- Micah Aaron,PhD Assistant Professor, University of Michigan Member of dissertation committee, director of T32 fellowship, supervisor of R01 diversity supplement

2020- Pragya Kakani Assistant Professor, Weill Cornell Medical School Member of dissertation committee, papers published and in progress

Michael Anne Kyle, PhD Post-doctoral Fellow, Harvard Medical School 2021-Supervised research during fellowship and K99 award, papers published and in progress

2021-Spencer Luster MD/PhD candidate, Harvard University

Supervised dissertation research

2022-Daniel Lage, MD, MPH Assistant Professor, Memorial Sloan Kettering Cancer Center

Supervised research as part of diversity supplement to a R01 proposal

2023-Rebecca Bromley-MD/PhD candidate, Harvard University

Dulfano

Supervised dissertation research

2024-Hailey Clark PhD candidate, Harvard University

Supervised research as part of diversity supplement to a R01 proposal

#### Formal Teaching of Peers

2006 Lecture: Breast Cancer Treatment of Single presentation

Older Women: Are there Disparities?

Dana-Farber Cancer Institute Breast Cancer: Current Challenges Boston, MA

and New Horizons

2012 Lecture: Recent Highlights in Single presentation

Palliative Care Research

Harvard Medical School Practical Aspects of Palliative Care Cambridge, MA

2014 Lecture: Financial and Employment

Cancer Survivorship: **Issues for Cancer Survivors** 

**Optimizing Care and Outcomes** Boston, MA Brigham and Women's Hospital

2015 Lecture: Care of the Cancer Single presentation

Survivor

36th Annual Office Practice of

Primary Care Medicine CME

Boston, MA Brigham and Women's Hospital

Single presentation

2015 Lecture: Mammographic screening: Single presentation

Update on Breast and Ovarian trends and trade-offs from a public

health perspective Cancer

Boston, MA Dana-Farber Cancer Institute

2016 Lecture: Mammographic screening: Single presentation

trends and trade-offs from a public Update on Women's Cancers

health perspective

Boston, MA Dana-Farber Cancer Institute

2018, 2019 Lecture: Innovation spotlight: Single presentation

**Executive Education Program for** Oncology care Boston, MA

Harvard Medical School

## **Local Invited Presentations**

No presentations below were sponsored by outside entities.

1997	Physician Beliefs About Informal or 'Curbside' Consultation  Harvard Sch	Quality of Care Research Seminar Series nool of Public Health, Boston, MA
1999	Surgical Treatment for Early Stage Breast Cancer—Effect of Provider Specialty on Treatment and Satisfaction  Dana-Fa	Clinical Outcomes and Policy Research Seminar arber Cancer Institute, Boston, MA
2000	The State of Our Cancer Care System  Har	National Council for Harvard Medicine Meeting vard Medical School, Boston, MA
2001	How is Outpatient Care in the Two Years Before Breast Cancer Diagnosis Associated with Stage at Diagnosis?  Dana-Fa	Clinical Outcomes and Policy Research Seminar urber Cancer Institute, Boston, MA
2002	Consultation with a Medical Oncologist Before Surgery and Type of Surgery among Elderly Women with Early-Stage Breast Cancer	Clinical Outcomes and Policy Research Seminar
	Dana-Fa	arber Cancer Institute, Boston, MA
2004	Health Status of Older Cancer Survivors  Dana-Fa	Clinical Outcomes and Policy Research Seminar arber Cancer Institute, Boston, MA
2004	Taking Charge: Patient Advocacy for Yourself or a Loved One,	Longwood Seminar
	"The Patient-Physician Relationship"	vard Medical School, Boston, MA
2005	Medicare Part D and the Medicare Modernization Act Har	Council for Harvard Medicine Meeting vard Medical School, Boston, MA
2006	Physicians Reports' of Discussing End-of-Life Options for Terminally Ill Cancer Patients  Dana-Fa	Clinical Outcomes and Policy Research Seminar arber Cancer Institute, Boston, MA
2006	Diabetes and Cardiovascular During Androgen Deprivation Therapy for Prostate Cancer  Massachuse	Massachusetts General Hospital Oncology Grand Rounds etts General Hospital, Boston, MA

2006	Financial, Insurance, and Employment among Older Long-Term Cancer Survivors  Dana-Fa	Boston Area Cancer Survivors Meeting rber Cancer Institute, Boston, MA
2008	Cancer Patients' Roles in Treatment Decision Making: Are they Influenced by Characteristics of the Decision?  Dana-Fa	Clinical Outcomes and Policy Research Seminar rber Cancer Institute, Boston, MA
2008	Physicians and Variations in End-of-Life Care for Patients with Cancer	Palliative Care Ground Rounds
	Massachuse	etts General Hospital, Boston, MA
2009	Cancer Care in High- versus Low-Spending Areas in the VA and the Private Sector	Clinical Outcomes and Policy Research Seminar
	Dana-Fa	rber Cancer Institute, Boston, MA
2010	A National Study of the Quality of Cancer Care in the Veterans Health Administration and the Private Sector	Program in Cancer Outcomes Research Training etts General Hospital, Boston, MA
	Massachus	tus General Hospital, Bostoli, MA
2010	The Role of Providers in Breast Cancer Treatment Disparities	Clinical Outcomes and Policy Research Seminar
	Dana-Fa	rber Cancer Institute, Boston, MA
2011	Hospital Choice and Breast Cancer Treatment Disparities  Massachuse	Breast Rounds etts General Hospital, Boston, MA
2012	Diabetes Control During Androgen Deprivation Therapy Among Diabetic Men with Prostate Cancer  Dana-Fa	Clinical Outcomes and Policy Research Seminar rber Cancer Institute, Boston, MA
	Build I u	Tool Cancel Institute, Boston, 1411
2012	Effect of Massachusetts Health Insurance Reform on Mammography Use and Breast Cancer Stage at Diagnosis Massachuse	Mongan Institute for Health Policy Research Seminar etts General Hospital, Boston, MA
2013	Understanding of Prognosis Among Patients with Lung and Colorectal Cancer	Clinical Outcomes and Policy Research Seminar
		rber Cancer Institute, Boston, MA
2013	The CanCORS Study: What We Have Learned and What Can We Still Learn About End of Life and Palliative Care?	Radcliffe Seminar in Palliative Care Research
	The R	adcliffe Institute, Cambridge, MA
2014	The Affordable Care Act: The Effects of Health Care Reform on Vulnerable Populations – Session Moderator	Serving the Underserved Retreat
	•	rvard Medical School, Boston MA
2014	What's New in Cancer Outcomes Research, Discussant	Dana-Farber/Harvard Cancer Center

# Dana-Farber and Harvard Medical School, Boston MA

2014	Understanding Variations in Intensity of End of Life Care  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar rber Cancer Institute, Boston, MA
2014	Communicating with Patients about the Benefits and Harms of Breast Cancer Screening	Breast Oncology Seminar Series
	•	arber Cancer Institute, Boston MA
2015	Individualizing Breast Cancer Screening Decisions	Department of Medicine Grand Rounds
	Brigham an	nd Women's Hospital, Boston MA
2016	Discussant, Pitfalls and Challenges in Diagnosing Breast Cancer	Primary Care Morbidity & Mortality
	Brigham ar	nd Women's Hospital, Boston MA
2016	Diffusion of Bevacizumab Across Oncology Practices	Dana-Farber/Harvard Cancer Center Outcomes Seminar
	Dana-Fa	rber Cancer Institute, Boston, MA
2016	Trends in Cancer Screening Har	Cancer 2025 Symposium vard Medical School, Boston, MA
2016	Diffusion of Bevacizumab Across Oncology Practices	Mongan Health Policy Institute Seminar Series
	Massachuse	etts General Hosiptal, Boston, MA
2017	Diffusion of Bevacizumab Across Oncology Practices Har	Oncology Interest Group vard Medical School, Boston, MA
2017	Clinical vs. Machine-Learning Algorithms to Predict Cancer Stage Using Claims Data for Patients Undergoing	Dana-Farber/Harvard Cancer Center Outcomes Seminar
	Chemotherapy Dana-Fa	rber Cancer Institute, Boston, MA
2017	Research to Promote Health System-Level Change, Panel Moderator	Burke Global Health Fellowship Research Seminar
	Harvard Globa	l Health Inititave, Cambridge, MA
2017	Clinical and Machine-Learning Algorithms to Predict Cancer Stage Using Claims Data for Cancer Patients	Department of Population Science Research Seminar
	Har	vard Medical School, Boston, MA
2018	Understanding Factors Contributing to Geographic Variation in Intensity of End of Life Care Expenditures  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar arber Cancer Institute, Boston, MA

2018	Celebration of Promotions-A View from the Promotions and Reappointments Committee  Harr	Harvard Medical School Promotion Celebration ward Medical School, Boston, MA
2018	Keynote Lecture: From Mentor to Mentee: Shaping a Successful Transition  Harr	Centers for Faculty Development and Diversity 2018 Mentoring Course vard Medical School, Boston, MA
2019	The Oncology Care Model: Evaluation and Early Findings  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar rber Cancer Institute, Boston, MA
2019	SHARE: Sharing Goals of Care  Massachuse	Shared Decision Making Seminar etts General Hospital, Boston, MA
2020	Measuring Quality of Oncology Care Across Oncology Practices  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar rber Cancer Institute, Boston, MA
2021	Assessing the Impact of the Oncology Care Model on Payments, Spending, and Outcomes  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar rber Cancer Institute, Boston, MA
2021	The Oncology Care Model and Impact on Cancer Care  Brigham and	Urology Grand Rounds d Women's Hospital, Boston, MA
2022	Measuring Equitable Care Across Oncology Practices  Dana-Fa	Dana-Farber/Harvard Cancer Center Outcomes Seminar rber Cancer Institute, Boston, MA

## Report of Regional, National and International Invited Teaching and Presentations

# Regional

No presentations below were sponsored by outside entities.

2000	Quality of Breast Cancer Care—Results from a Study in Massachusetts and Minnesota	Faulkner Hospital Multidisciplinary Breast Cancer Conference Faulkner Hospital, Boston, MA
2014	Racial and Ethnic Disparities in Cancer Care	Global Youth Summit on the Future of Medicine Brandeis University, Waltham, MA
22	Alternative Payment Models in Oncology	Center for Evaluation of Value and Risk in Health Tufts University School of Medicine

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No presentations below were sponsored by outside entities.

1997 Use of Hormone Replacement Therapy in a National Sample of Postmenopausal Women

Plenary session

Society of General Internal Medicine Annual Meeting

Washington, D.C.

1997 Use of Hormone Replacement Therapy in a National Sample of Postmenopausal Women

**Invited Presentation** 

National Research Service Award Trainees' Research Conference

Chicago, IL

1998 Physician Beliefs About Informal or 'Curbside' Consultation

**Invited Presentation** 

National Research Service Award Trainees' Research Conference

Washington, D.C

2000 How are Patients' Experiences during the Clinical Encounter Related to Trust and

Considering Changing Physicians?

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

Boston, MA

2000 Surgical Treatment for Early Stage Breast Cancer—Effect of Provider Specialty on

Treatment and Satisfaction

**Invited Presentation** 

Academy Health Annual Meeting

Nashville, TN

Do Increases in Managed Care Market Share Influence Quality of Cancer Care in the Fee-

for-Service Setting? Invited Presentation

Academy Health Annual Meeting

San Diego, CA

2005 Medicare Part D and the Medicare Modernization Act

**Invited Presentation** 

Harvard Club of New York Seminar Series

New York, NY

Factors Related to Underuse of Surveillance Mammography

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

New Orleans, LA

2005 Surveillance Testing after Breast Cancer Diagnosis

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

New Orleans, LA

2006 Physician Factors Associated with Discussions about End-of-Life Care

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

Los Angeles, CA

2006 Quality of Diabetes Care for Cancer Survivors with Diabetes

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

Los Angeles, CA

2006 Physician Factors Associated with Discussions about End-of-Life Care

**Invited Presentation** 

Academy Health Annual Meeting

Seattle, WA

2007 Physicians and Variations in Cancer Care

**Invited Lecture** 

Dartmouth Institute for Health Policy and Clinical Practice Seminar

Hanover, NH

2008 Physicians and Variations in Cancer Care

Invited Lecture

Pennsylvania State University Seminar

University Park, PA

2008 Cancer Patients' Roles in Treatment Decision Making: Are They Influenced by

Characteristics of the Decision?

**Invited Presentation** 

Society of General Internal Medicine Annual Meeting

Pittsburgh, PA

2008 Caring for Breast Cancer Survivors

Invited Lecture

Society of General Internal Medicine Annual Meeting

Pittsburgh, PA

2008 Cancer Patients' Roles in Treatment Decision Making: Are they Influenced by

Characteristics of the Decision?

**Invited Presentation** 

Academy Health Annual Meeting

Washington, D.C.

2009 Aggressiveness of End-of-Life Care in the Veterans Health Administration versus the

Private Sector

**Invited Presentation** 

Miami, FL 2009 Prevention of Treatment and Disease-Related Morbidity During Androgen Deprivation **Invited Presentation** Prostate Cancer Foundation Annual Meeting Lake Tahoe, NV 2009 Using SEER-Medicare Data for Comparative Effectiveness Research **Invited Presentation** Meeting of the Board of Scientific Advisors, National Cancer Institute Bethesda, MD Cancer Care in the Veterans Health Administration versus the Private Sector 2009 Invited Lecture Robert Wood Johnson Clinical Scholars Program Seminar, University of Michigan Ann Arbor, MI 2010 A National Study of the Quality of Cancer Care in the Veterans Health Administration and the Private Sector **Invited Presentation** Society of General Internal Medicine Annual Meeting Minneapolis, MN 2010 **Quality of Care and Patient Safety** Discussant for Abstract Session Society of General Internal Medicine Annual Meeting Minneapolis, MN 2010 A National Study of the Quality of Cancer Care for Older Cancer Patients in the Veterans Health Administration Versus Fee-for-Service Medicare **Invited Presentation** Academy Health Annual Meeting Boston, MA 2010 Aggressiveness of End-of-Life Care for Older Cancer Patients in the Veterans Health Administration Versus Fee-for-Service Medicare **Invited Presentation** Academy Health Annual Meeting Boston, MA 2010 Variations in Primary Prostate Cancer Treatment in the Veterans Health Administration Versus the Private Sector **Invited Presentation** Academy Health Annual Meeting Boston, MA 2010 Incentives Directed to Physicians

Society of General Internal Medicine Annual Meeting

2010	The Role of Providers in Breast Cancer Disparities Invited Plenary Presentation
	San Antonio Breast Cancer Conference San Antonio, TX
2011	The Quality of Cancer Care in the Veterans Health Administration Invited Lecture UNC Lineberger Comprehensive Cancer Center Outcomes Research Seminar Raleigh, NC
2011	Are Patient Preferences Incorporated into Treatment Decisions? Invited Presentation National Coalition for Cancer Survivorship and Institute of Medicine National Cancer Policy Forum Workshop: Patient-Centered Cancer Treatment Planning: Improving the Quality of Oncology Care Washington, DC
2011	Importance of Defining Stage for the Purposes of Health Services Research Invited Presentation American Joint Committee on Cancer and American Cancer Society summit: Beyond Cancer Staging: Characterizing Cancer for Clinical Practice & Population Surveillance Chicago, IL
2011	Racial Disparities in Breast Cancer Stage at Diagnosis in the Mammography Era Invited Presentation Society of General Internal Medicine Annual Meeting Phoenix, AZ
2011	Secondary Data Analysis R01s: A Route to Success Invited Workshop Society of General Internal Medicine Annual Meeting Phoenix, AZ
2011	Understanding Delivery of Cancer Care in the Department of Veterans Affairs Invited Lecture Leonard Davis Institute of Health Economics Research Seminar, University of Pennsylvania Philadelphia, PA
2011	Measuring Quality of Care: The Case of Cancer in the Veterans Health Administration Invited Lecture University of Iowa Department of Epidemiology Seminar Iowa City, IA

National Cancer Institute Provider Survey Methods Workshop

Invited Presentation Bethesda, MD 2011 Use of Geographic Variation to Infer Treatment Effectiveness: Surgery for Early Stage Lung Cancer Panel Discussant University of Iowa "Challenges in Comparative Effectiveness Research" Panel Iowa City, IA A National Evaluation of the Quality of Cancer Care in the Veterans Health 2013 Administration Invited Lecture The Dartmouth Institute Hanover, NH 2013 Real World Treatment Patterns and Outcomes Poster Discussant American Society of Clinical Oncology 2013 Annual Meeting Chicago, IL 2013 Studying Quality and Outcomes of Cancer Care Hematology/Oncology Grand Rounds Warren Alpert Medical School Providence RI 2013 Screening for Breast Cancer and the US Preventive Services Task Force Recommendations Grand Rounds Beth Israel Medical Center New York, NY What We Know About Tumor Boards: Research from the U.S 2014 **Invited Presentation** American Society of Clinical Oncology 2013 Annual Meeting Chicago, IL 2016 Diffusion of Bevacizumab Across Oncology Practices **Invited Presentation** Cancer Outcomes Research Group, Johns Hopkins University School of Medicine Baltimore, MD 2016 Individualizing Breast Cancer Screening Decisions Medicine Grand Rounds Johns Hopkins University School of Medicine Baltimore, MD 2016 Assessing the Impact of Colonoscopy Complications on use of Colonoscopy among Primary Care Physicians and Other Connected Physicians **Invited Presentation** Society of General Internal Medicine Annual Meeting Hollywood, FL 2016 Cancer Research Poster Walk and Talk

2017	Diffusion of Bevacizumab Across Oncology Practices Invited Presentation Health Services Research Speaker Seminar Series, Brown University School of Public Health Seminar Series Providence, RI
2017	Understanding Factors Contributing to Geographic Variations in End-of-Life Care Intensity Invited Presentation Palliative Care Research Consortium Investigators Meeting Denver, CO
2018	Understanding Variations in Intensity of Care at the End of Life Invited Presentation and Visiting Professor Comprehensive Cancer Center Population Sciences Seminar Series, University of Michigan Comprehensive Cancer Center Ann Arbor, MI
2018	An Evaluator's Perspective on the Oncology Care Model Invited Presentation for Panel: Innovative Payment Models and Innovations in Cancer Care Delivery ASCO Annual Meeting Economics of Cancer Care Precource Chicago, IL
2018	Understanding Factors Contributing to Geographic Variations in End-of-Life Care Expenditures Invited Presentation ASCO Annual Meeting Chicago, IL
2018	More Good Days: A Pilot Study to Improve Discussions of Goals of Care for Patients with Advanced-Stage Cancer Invited Presentation National Palliative Care Research Center Annual Meeting San Diego, CA
2019	Research Using Registries Invited Presentation Society of General Internal Medicine Annual Meeting Washington, DC
2019	Using Administrative Data to Understand Care Delivery Invited Presentation ASCO Annual Meeting Chicago, IL

Discussant and Invited Professor of Cancer Research Society of General Internal Medicine Annual Meeting

Hollywood, FL

2019 Understanding Area-Level Variations in Cancer Care Delivery **Invited Presentation** Alliance of Dedicated Cancer Centers (ADCC) Quality Committee National Meeting Boston, MA 2019 Application and Measurement of Quality in Cancer Care Delivery Systems: Challenges & Lessons Learned **Invited Panelist** National Comprehensive Cancer Center Policy Summit: Defining, Measuring, and Applying Quality in an Evolving Health Policy Landscape and the Implications for Cancer Care Washington, DC 2020 Key Considerations in Adopting a Value-Based Payment Model Invited Speaker National Comprehensive Cancer Center Annual Conference [scheduled; converted to virtual presentation by NCCN due to coronavirus related travel restrictions] Orlando, FL 2020 Measuring Quality Across Oncology Practices Invited Speaker, Virtual Presentation **ASCO Measures Steering Group** Arlington, VA 2020 The Breast Lump and Breast Cancer Screening Invited Guest/Audio Podcast Curbsiders Internal Medicine Podcast, VCU Health Richmond, VA 2020 Opportunities for System-level Redesign and Policy Change Invited Speaker, Virtual Presentation National Cancer Policy Forum Workshop on Addressing the Adverse Consequences of Cancer Treatment Washington, DC 2021 Research Using Registries Invited Speaker, Virtual Presentation Society of General Internal Medicine Annual Meeting Virtual Meeting 2022 Measuring Quality and Equity Across Oncology Practices Invited Speaker, Seminar Series Department Biomedical Data Science, Geisel School of Medicine at Dartmouth Hanover, NH 2022 Research Using Registries: Discovery, Equity, and Impact

Invited Speaker

Society of General Internal Medicine Annual Meeting

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2022	Cancer Screening and Surveillance Testing for Older Adult Cancer Survivors Invited Speaker, Virtual Presentation National Comprehensive Cancer Center Annual Conference Washington, DC
2022	Measuring Quality of Oncology Care Invited Speaker, 3rd Charles Donahue Endowed Lecture Department of Health Law, Policy, & Management, Boston University School of Public Health Boston, MA
2022	Alternative Payment Models in Oncology: What Have We Learned So Far? Invited Speaker Cancer Prevention & Control Grand Rounds (Virtual) University of Texas MD Anderson Cancer Center Houston, TX
2022	Alternative Payment Models in Oncology: Past, Present, Future? Invited Speaker Cancer Outcomes Research Seminar (Virtual) Cancer Outcomes Research Program, University of North Carolina Raleigh, NC
2022	Evaluating Quality and Equity of Oncology Care 3 <sup>rd</sup> Charles Donahue Endowed Lecture Department of Health Law, Policy, & Management, Boston University School of Public Health Boston, MA
2022	Alternative Payment Models in Oncology: Past, Present, Future Invited Speaker, Health Policy Seminar (Virtual) Center for the Evaluation of Value and Risk in Health at Tufts Medical Center Boston, MA
2023	Measuring Quality and Equity of Care Across Oncology Practices Invited Speaker Ann Arbor HSR&D Center of Innovation Ann Arbor, MI
2023	Managing Research Teams and Grantsmanship Successfully in this New Era Panelist University of Michigan Cancer Center Ann Arbor, MI
2023	New Ways to Pay for High-Cost Drugs Panel Member, A Prescription for the Future of Drug Pricing Conference Penn Leonard Davis Institute of Health Economics Philadelphia, PA

2023 The Value of Hospice Care: Evidence from Facility Openings Discussant ASHEcon Annual Meeting St. Louis, MO Measuring Quality and Equity of Care Across Oncology Practices 2023 Invited speaker Memorial Sloan Kettering Population Sciences Research Program Seminar New York, NY 2023 Value-Based Payment and the Delivery of High-Quality Cancer Care: Lessons Learned and Future Directions Invited speaker Assessing and Advancing Progress in the Delivery of High-Quality Cancer Care National Cancer Policy Forum Workshop Washington, DC 2023 Has the Oncology Care Model Improved the Quality of Oncology Care? Invited speaker **ASCO Quality Symposium** Boston, MA 2024 The Oncology Care Model Did Not Increase Chemotherapy Initiation for Patients with Cancer Invited prestation **ASCO** Annual Meeting Chicago, IL 2024 The Oncology Care Model Did Not Increase Chemotherapy Initiation for Patients with Cancer Invited prestation Academy Health Annual Meeting Baltimore, MD 2024 Using Data to Assess Quality in Alternative Payment Models Invited speaker National Academies Workshop: Enabling 21st Century Applications for Cancer Surveillance through Enhanced Registries and Beyond Washington, DC 2024 Strategies for Implementing Multi Cancer Detection Tests into Clinical Practice: Health Care Delivery System Perspective Invited speaker National Cancer Policy Forum Workshop: Opportunities and Challenges for the Development and Adoption of Multicancer Detection Tests Washington, DC

#### **International**

One presentation below\* was sponsored by an outside entity and the name of the sponsor is noted.

Factors Affecting Influential Discussions Among Physicians: A Social Network Analysis

of a Primary Care Practice Invited Presentation

Society of General Internal Medicine Annual Meeting

Toronto, Ontario, Canada

2007 Primary and Specialty Care before Death and Hospice Enrollment among Women with

Advanced Breast Cancer Invited Presentation

Society of General Internal Medicine Annual Meeting

Toronto, Ontario, Canada

2009 Understanding Variations in End-of-Life Care for Cancer Patients

Invited Presentation Oncology Grand Rounds

Sheba Medical Center Cancer Center

Tel Hashomer, Israel

2013 Cancer Survivors: Key Advocates for a Better Future

**Invited Presentation** 

Breast Cancer and Survival: Challenges and Responses International Conference

Mexico National Rehabilitation Institute

Mexico City, Mexico

Caring for Breast Cancer Survivors: What Can we Learn from the US and Canada?

**Invited Presentation** 

Breast Cancer and Survival: Challenges and Responses International Conference

Mexico National Rehabilitation Institute

Mexico City, Mexico

2014 Cardiovascular Disease and Diabetes with Androgen Deprivation Therapy—the US

Perspective

Invited Presentation and Meeting Chair

Expert Meeting on Cardiovascular Risk and Androgen Deprivation Therapy

Ferring Pharmaceuticals (honorarium and travel expenses declined)\*

Copenhagen, Denmark

2014 Racial and Ethnic Disparities in Cancer Care: Lessons from the U.S. CanCORS study

**Invited Presentation** 

Department of Public Health, Section of Health Services Research

University of Copenhagen Copenhagen, Denmark

2014 Understanding Variations in Intensity of End-of-Life Cancer Care

**Invited Presentation** 

Institute for Clinical and Evaluative Sciences Research Rounds

Sunnybrook Health Sciences Center

Toronto, Canada

2017 Current Practices for Screening and Early Detection of Breast Cancer in the U.S.

**Invited Presentation** 

Butaro Cancer Center of Excellence Early Detection Team Meeting

Kigali, Rwanda

Learning from Research on Cancer Disparities in the U.S.

Invited Speaker for Plenary Panel: The Burden of Cancer Due to Inequalities and Its

Likely Causes

National Cancer Research Institute

Glasgow, United Kingdom

### **Report of Clinical Activities and Innovations**

### **Current Licensure and Certification**

1995	State of Massachusetts
1996	Diplomate, American Board of Internal Medicine, recertified 2006, 2016

# **Practice Activities**

1993-	Type of Activity Outpatient primary care practice	Setting of Practice Brigham Internal Medicine Associates, Brigham and	<b>Description</b> 1 scheduled session per week and urgent visits
		Women's Hospital	throughout the week
1998-	Outpatient primary care preceptor	Brigham Internal Medicine Associates, Brigham and Women's Hospital	Weekly session supervising care for patients of 4-5 residents
1998-2014	Inpatient care attending	General Medical Service, Brigham and Women's Hospital	2-4 weeks per year

### Report of Education of Patients and Service to the Community

1996-2006 Volunteer Physician New England Shelter for Homeless Veterans

### **Report of Scholarship**

# Peer reviewed publications in print or other media

#### **Original Research Investigations**

- 1. **Keating NL**, Zaslavsky AM, Ayanian JZ. Physicians' experiences and beliefs regarding informal consultation. JAMA 1998; 280:900-904.
- 2. **Keating NL**, Cleary PD, Rossi AS, Zaslavsky AM, Ayanian JZ. Use of hormone replacement therapy by postmenopausal women in the United States. Ann Intern Med 1999; 130:545-553.

- 3. **Keating NL**, Zaslavsky AM, Ayanian JZ. Physicians' reports of expertise in clinical practice. J Gen Intern Med 2000; 15:417-420.
- 4. Dudley RA, Landon BE, Rubin HR, **Keating NL**, Medlin CA, Luft HS. Assessing the relationship between quality of care and the characteristics of health care organizations. Med Care Res Rev 2000; 57 (Suppl 2):116-135.
- 5. **Keating NL**, Weeks JC, Landrum MB, Borbas C, Guadagnoli E. Discussion of treatment options for early-stage breast cancer: effect of provider specialty on type of surgery and satisfaction. Med Care 2001; 39:681-691.
- 6. **Keating NL**, Green D, Kao A, Gazmararian JA, Wu V, Cleary PD. How are patients' specific ambulatory care experiences related to trust, satisfaction, and considering changing physicians? J Gen Intern Med 2002:17:29-39.
- 7. **Keating NL**, Guadagnoli E, Landrum MB, Borbas C, Weeks JC. Treatment decision making in early-stage breast cancer: should surgeons match patients' desired level of involvement? J Clin Oncol 2002; 20:1473-1479.
- 8. Polsky D, **Keating NL**, Weeks JC, Schulman KA. The utility of choice: options for breast cancer treatment. Med Care 2002; 40:1068-1079.
- 9. Newhouse JP, Buchanan JL, Bailit HL, Blumenthal D, Buntin MB, Caudry D, Cleary PD, Epstein AM, Fitzgerald P, Frank RG, Gorski H, Huskamp HA, **Keating NL**, Landon BE, McNeil BJ, Palmer RH, Rosenthal MB, Zaslavsky AM. Managed care: an industry snapshot. Inquiry 2002; 39:207-220.
- 10. **Keating NL**, Weeks JC, Borbas C, Guadagnoli E. Treatment of early stage breast cancer: do surgeons and patients agree regarding whether treatment alternatives were discussed? Breast Cancer Res Treat 2003; 79:224-231.
- 11. **Keating NL,** Landrum MB, Ayanian JZ, Winer EP, Guadagnoli E. Consultation with a medical oncologist before surgery and type of surgery among elderly women with early-stage breast cancer. J Clin Oncol. 2003; 21:4532-4539.
- 12. **Keating NL**, Landrum MB, Landon BE, Ayanian JZ, Borbas C, Guadagnoli E. Measuring the quality of diabetes care—comparison of administrative data and medical record data. Health Services Res 2003; 38:1529-1545.
- 13. **Keating NL**, Landon BE, Ayanian JZ, Borbas C, Guadagnoli E. Practice, clinical management, and financial arrangements of practicing generalists: are they associated with satisfaction? J Gen Intern Med 2004; 19:410-418.
- 14. **Keating NL**, Gandhi TK, Orav EJ, Bates DW, Ayanian JZ. Patient characteristics and experiences associated with trust in specialist physicians. Arch Intern Med 2004; 164:1015-1020.
- 15. **Keating NL**, Landrum MB, Landon BE, Ayanian JZ, Borbas C, Wolf R, Guadagnoli E. The influence of physicians' practice management strategies and financial arrangements on quality of care among patients with diabetes. Med Care 2004; 42:829-839.
- 16. Persell SD, **Keating NL**, Landrum MB, Landon BE, Ayanian JZ, Borbas C, Guadagnoli E. Relationship of diabetes-specific knowledge to self-management activities, ambulatory quality of care, and metabolic outcomes. Prev Med 2004; 39:746-752.
- 17. **Keating NL**, Landrum MB, Ayanian JZ, Winer EP, Guadagnoli E. The association of ambulatory care with breast cancer stage at diagnosis among Medicare beneficiaries. J Gen Intern Med. 2005; 20:38-44.
- 18. **Keating NL**, Landrum MB, Meara E, Ganz PA, Guadagnoli E. Do increases in managed care market share influence quality of care in the fee-for-service sector? J Natl Cancer Inst.2005; 97:257-264.

- 19. Huskamp HA, **Keating NL**. The new Medicare drug benefit: formularies and their potential effects on access to medications. J Gen Intern Med 2005; 20:662-665.
- 20. **Keating NL**, Nørredam M, Landrum MB, Huskamp HA, Meara E. Physical and mental health status of older long-term cancer survivors. J Am Geriatr Soc 2005; 53:2145-2152.
- 21. **Keating NL**, Landrum MB, Guadagnoli E, Winer EP, Ayanian JZ. Factors related to underuse of surveillance mammography among breast cancer survivors. J Clin Oncol 2006; 24:85-94.
- 22. **Keating NL**, Landrum MB, Meara E, Ganz PA, Guadagnoli E. Managed care market share and primary treatment for cancer. Health Serv Res, 2006; 41:9-22.
- 23. **Keating NL**, Herrinton LJ, Zaslavsky AM, Liu L, Ayanian JZ. Variations in hospice use among cancer patients. J Natl Cancer Inst. 2006; 98:1053-1059.
- 24. Grabowski DC, Stevenson DG, Huskamp HA, **Keating NL**. The influence of Medicare home health payment incentives: does payer source matter? Inquiry 2006; 43:135-149.
- 25. **Keating NL**, O'Malley AJ, Smith MR. Diabetes and cardiovascular disease during androgen deprivation therapy for prostate cancer. J Clin Oncol. 2006; 24:4448-4456.
- 26. Huskamp HA, Stevenson DG, Donahue JM, Newhouse JP, **Keating NL**. Coverage and prior authorization of psychotropic drugs under Medicare Part D. Psych Services 2007; 58:308-310.
- 27. **Keating NL**, Landrum MB, Guadagnoli E, Winer EP, Ayanian JZ. Surveillance testing among survivors of early-stage breast cancer. J Clin Oncol 2007; 25:1074-1081.
- 28. **Keating NL**, Landrum MB, Landon BE, Ayanian JZ, Borbas C, Guadagnoli E. The influence of cost containment strategies and physicians' financial arrangements on patients' trust and satisfaction. J Ambul Care Manage 2007; 30:92-104.
- 29. Stevenson DG, Huskamp HA, **Keating NL**, Newhouse JP. Medicare Part D and nursing home residents. J Am Geriatr Soc 2007; 55:1115-1125.
- 30. **Keating NL**, Ayanian JZ, Cleary PD, Marsden PV. Factors affecting influential discussions among physicians: a social network analysis of a primary care practice. J Gen Intern Med 2007; 22:794-798.
- 31. Rosenthal MB, Landrum MB, Huskamp HA, Meara E, Conti RM, **Keating NL**. Using performance data to identify preferred hospitals. Health Serv Res 2007. 42:2109-2119.
- 32. **Keating NL**, Zaslavsky AM, Herrinton LJ, Selby JV, Wolf RE, Ayanian JZ. Quality of diabetes care among cancer survivors with diabetes. Med Care 2007; 45:869-875.
- 33. Stevenson DG, Huskamp HA, Grabowski, DG, **Keating NL**. Differences in hospice care between home and institutional settings. J Palliat Med 2007;10:1040-1047.
- 34. Landrum MB, Meara E, Chandra A, Guadagnoli E, **Keating, NL**. Is spending more always wasteful? The appropriateness of care and outcomes among colorectal cancer patients. Health Aff 2008; 27: 159-168.
- 35. **Keating NL**, Landrum MB, Guadagnoli E, Winer EP, Ayanian JZ. Care in the months before death and hospice enrollment among older women with advanced breast cancer. J Gen Intern Med 2008; 23:11-18.
- 36. **Keating NL**, O'Malley AJ, McNaughton Collins M, Oh WK, Smith MR. Use of androgen deprivation therapy for metastatic prostate cancer in older men. BJU Int 2008; 101:1077-1083.
- 37. Huskamp HA, Newhouse JP, Norcini JC, **Keating NL.** Per diem payment and variation in patient-level hospice costs. Inquiry 2008; 45:232-244.

- 38. Huskamp HA, Stevenson DG, **Keating NL**, Newhouse JP. Prescription drug claim rejections for nursing home residents under Medicare Part D. Health Aff 2008; 2:560-567.
- 39. Hu JC, Wang Q, Pashos CL, Lipsitz S, **Keating NL**. Utilization and outcomes of laparoscopic radical prostatectomy. J Clin Oncol 2008; 26:2278-2284.
- 40. Gandhi TK, **Keating NL**, Ditmore M, Kiernan D, Johnson R, Burdick E, Hamann C. Improving referral communication using a referral tool within an electronic medical record. AHRQ Advances in Patient Safety 2008; 3:63-74.
- 41. **Keating NL**, Zaslavsky AM, Goldstein J, West DW, Ayanian JZ. Randomized trial of \$20 vs. \$50 incentives to increase physician survey response rates. Med Care 2008;46:878-81.
- 42. **Keating NL**, Landrum MB, Klabunde CN, Fletcher RH, Rogers SO, Doucette WR, Tisnado D, Clauser S, Kahn KL. Adjuvant chemotherapy for stage III colon cancer: do physicians agree about the importance of patient age and comorbidity? J Clin Oncol 2008; 26:2532-2537.
- 43. Prasad SM, **Keating NL**, Wang Q, Pashos CL, Lipsitz S, Hu JC. Variations in surgeon volume and use of pelvic lymph node dissection with open and minimally invasive radical prostatectomy. Urology 2008; 72:647-52.
- 44. **Keating NL**, Stoeckert KA, Regan MM, DiGianni L, Garber JE. Physicians' reports about BRCA1/2 testing in community settings. J Clin Oncol 2008; 26:5789-5796.
- 45. Freedman RA, He Y, Winer EP, **Keating NL**. Trends in racial and age disparities in definitive locoregional therapy of early-stage breast cancer. J Clin Oncol 2009; 27:713–719.
- 46. Grabowski DC, Stevenson DG, Huskamp HA, **Keating NL**. Ownership status and length of home health care enrollment. J Aging Soc Policy 2009; 21:130-143.
- 47. Huskamp HA, **Keating NL**, Malin JL, Zaslavsky AM, Weeks JC, Earle CC, Teno JN, Virnig BA, Kahn KL, He Y, Ayanian JZ. Discussions with physicians about hospice among patients with metastatic lung cancer. Arch Intern Med 2009; 169;954-962.
- 48. Hassett M, O'Malley AJ, **Keating NL**. Factors influencing changes in employment among women with newly diagnosed breast cancer. Cancer 2009; 115:2775-82.
- 49. **Keating NL**, Kouri E, He Y, Weeks JC, Winer EP. Racial differences in definitive breast cancer surgery: are they explained by the hospitals where patients undergo surgery? Med Care 2009; 47:765-73.
- 50. Lee IH, Hayman JA, Landrum MB, Tepper J, Tao ML, Goodman KA, **Keating NL**. Treatment recommendations for locally advanced, non-small-cell lung cancer: the influence of physician and patient factors. Int J Radiat Oncol Biol Phys 2009; 74(5):1376-84.
- 51. Klabunde C, Ambs A, **Keating NL**, He Y, Doucette W., Tisnado D, Clauser S, Kahn KL. The role of primary care physicians in the management of lung and colorectal cancer patients. J Gen Intern Med 2009; 24:1029-1036.
- 52. Norredam M, Meara E, Landrum MB, Huskamp HA, **Keating NL**. Financial status, employment, and insurance among older cancer survivors. J Gen Intern Med 2009; 24 (Suppl 2):S438-S445.
- 53. Rogers SO, Ayanian JZ, Ko CY, Kahn KL, Zaslavsky AM, Sandler RS, **Keating NL**. Surgeons' volume of colorectal cancer procedures and collaborative decision-making about adjuvant therapies. Ann Surgery 2009; 250:895-900.
- 54. Hu JC, Gu X, Lipsitz SR, Barry MJ, D'Amico A, Fowler FJ, Weinberg AC, **Keating NL**. Comparative effectiveness of minimally invasive versus open radical prostatectomy. JAMA 2009; 302:1557-1564.

- 55. **Keating NL**, O'Malley AJ, Freedland SJ, Smith MR. Diabetes and cardiovascular disease during androgen deprivation therapy: observational study of veterans with prostate cancer. J Natl Cancer Inst 2010. 102:39-46.
- 56. **Keating NL**, Landrum MB, Rogers SO, Baum SK, Virnig BA, Huskamp HA, Earle CC, Kahn KL. Physician factors associated with discussions about end-of-life care. Cancer 2010. 116:998-1006.
- 57. Fang F, **Keating NL**, Mucci L, Adami H-O, Stampfer M, Valdimarsdóttir U, Fall K. Immediate risk of suicide and cardiovascular death following a prostate cancer diagnosis in the Surveillance, Epidemiology, and End Results Program. J Natl Cancer Inst 2010. 102:307-314.
- 58. Lamont EB, Landrum MB, **Keating NL**, Archer L, Lan L, Strauss GM, Lilenbaum R, Niell HB, Maurer LH, Kosty MP, Miller AA, Clamon GH, Elias AD, McClay EF, Vokes EE, and McNeil BJ. Differences in clinical trial patients' attributes and outcomes according to enrollment setting. J Clin Oncol 2010. 28:215-21.
- 59. Oh WK, Landrum MB, Lamont EB, McNeil BJ, **Keating NL**. Does oral antiandrogen use before luteinizing hormone-releasing hormone therapy in patients with metastatic prostate cancer prevent clinical consequences of a testosterone flare? Urology 2010; 75:642-647.
- 60. Earle CC, Chretien Y, Morris C, Ayanian JZ, **Keating NL**, Polgreen LA, Wallace R, Ganz PA, Weeks JC. Employment and insurance coverage among survivors of lung cancer and colorectal cancer. J Clin Oncol 2010; 28:1700-1705.
- 61. **Keating NL**, Landrum MB, Lamont EB, Earle CC, Bozeman SR, McNeil BJ. End-of-life care for older cancer patients in the Veterans Health Administration versus the private sector. Cancer 2010; 116:3732-9.

62.

- 63. Kouri EM, He Y, Winer EP, **Keating NL**. Influence of birthplace on breast cancer diagnosis and treatment for Hispanic women. Breast Cancer Res Treat 2010. 121:743–751.
- 64. Rogers SR, Gray SW, Landrum MB, Klabunde CN, Fletcher RH, Kahn KL, Clauser S, Tisnado D, Doucette W, **Keating NL**. Variations in surgeon treatment recommendations for lobectomy in early-stage non small cell lung cancer by patient age and comorbidity. Ann Surg Oncol 2010; 17:1581-1588.
- 65. Cooper Z, Meyers M, **Keating NL**, Gu X, Lipsitz SR, Rogers SO. Resident education and management of end of life care: the resident's perspective. J Surg Educat 2010; 67:79-84.
- 66. Huskamp HA, Stevenson DG, Grabowski DC, Brennan E, **Keating NL**. Long and short hospice stays among nursing home residents at the end of life. J Palliat Med 2010. 13:957-964.
- 67. **Keating NL**, Landrum MB, Arora NK, Malin JL, Ganz PA, vanRyn M, Weeks JC. Cancer patients' roles in treatment decisions: do characteristics of the decision influence roles? J Clin Oncol 2010. 28:4364-4370.
- 68. Wright AA, **Keating NL**, Balboni TA, Matulonis UA, Block SD, Prigerson HG. Place of death: associations with patients' quality of life and bereaved caregivers' mental health. J Clin Oncol 2010. 28:4457-4464.
- 69. Smith Nielsen S, He Y, Ayanian JZ, Lin Gomez S, Kahn KL, West DW, **Keating NL**. Quality of cancer care among foreign-born and US-born patients with lung or colorectal cancer. Cancer 2010; 116:5497-506.
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### **Narrative Report**

My research has made important contributions to understanding and identifying opportunities to improve delivery of high quality/high-value health care, informing policies to improve access to and affordability of care and models for payment and delivery of care. I have focused on cancer care as a model because of its critical policy importance due to its prevalence, high treatment costs, and opportunities for improving care and outcomes. I have studied cancer screening and prevention, treatment, survivorship, care at the end of life, and models for care delivery and financing. Here I summarize some key areas.

Care Organization and Payment: I led a national evaluation of care delivery in the Veterans Affairs (VA) Health System. My team examined the quality and outcomes of cancer care for Veterans with cancer diagnosed or treated in VA facilities compared with in the private sector. These studies found equal or higher use of recommended therapies, similar or better survival, and less use of aggressive end-of-life care among older Veterans relative to similar patients in fee-for-service Medicare. Editorials highlighted these findings' importance for U.S. health reforms. Building on this extensive evaluation, in 2015, my team was selected to evaluate the Centers for Medicare & Medicaid Services (CMS) Oncology Care Model, an alternative payment model for patients undergoing chemotherapy. We found modest savings in episode payments that increased over time, but were insufficient to cover the monthly model payments to practices, and no meaningful improvements in quality of care, patient outcomes, or patient experiences. These findings have generated critical insights to inform value-based payment models and has directly informed CMS' next proposed model for oncology patients, the Enhancing Oncology Model. More recent work has assessed quality of oncology care at the practice level, underscoring the importance of reliable measures of quality for alternative payment models that incorporate performance-based payments that rely on assessing quality across practices.

Prescription Drug Policy: I have worked with colleagues to examine the role of patient access to care and insurance design on treatment and adherence. For example, we demonstrated that higher levels of cost-sharing for an expensive but very effective therapy (imatinib for chronic myelogenous leukemia, CML) is associated with higher non-adherence and discontinuation of therapy, even in well-insured populations of patients with modest cost sharing. This finding was featured in the American Society of Clinical Oncology presidential address in 2014 and led to recommendations that clinicians consider costs of treatments in their prescribing decisions. This and related research examining the Medicare Part D benefit has underscored the need to make prescription drugs more affordable, including recommendations such as an annual cap on Part D out of pocket spending, which was included in the Build Back Better legislation. In other studies, using rigorous difference-in-difference designs that have served as models for similar studies examining the effects of health insurance reforms across the US, I examined the effect of health insurance reform in Massachusetts on breast cancer screening and stage at diagnosis. In other work, I have documented that prior authorizations on new cancer drugs are associated with delays in filling and increased risk of discontinuation of these drugs.

Variation in Delivery of High-Quality Care. Another large body of my research has explained variations in utilization of health care services throughout the U.S. As a key investigator in the Cancer Care Outcomes Research and Surveillance (CanCORS) Consortium, I led studies that informed efforts to expand enrollment in clinical trials to assess the effects of treatments for patients who are older or have comorbid illness; elucidated major gaps in care delivered to patients nearing the end of life—an area of critical importance for improving care and controlling health care costs in the U.S; and documented the link between infrequent or late discussions about end-of-life care issues and more aggressive care and less use of hospice at the end of life. I further demonstrated that many patients receiving chemotherapy for incurable cancers do not understand that chemotherapy is unlikely to be curative. These findings underscore the need for policies to promote discussions between patients and their physicians about values and preferences to assure that patients make informed treatment decisions consistent with their preferences.

Using patient and physician data from CanCORS linked with Medicare and health plan administrative data, I demonstrated that physicians' beliefs and availability of services, but not patients' beliefs, explain variations in intensity of end-of-life care. These findings suggest that enhanced training to better equip physicians to care for patients at the end of life and strategic resource allocation may have potential for decreasing unwarranted variation in care at the end of life. I also was one of the first investigators to identify how information exchange on shared patients through physician networks influences the types and amount of care delivered. I found, for example, that total spending is higher for patients of physicians with more connections to other physicians and more shared care outside of their network and for patients whose care is more dispersed among physicians across networks. I then examined the role of physician networks in adoption of new cancer therapies as well as use of hospice at the end of life, underscoring opportunities for interventions that leverage physician ties with other physicians to promote high-value use of novel therapies and care at the end of life.

Responses to New Policies: My research has provided important insights into the effect of external policies and recommendations on care delivery. I found conflicting results regarding the effect of peer-reviewed evidence and guideline changes on health care practice, indicating the need for better ways of educating physicians and patients. For example, I documented no change in rates of mammography screening following new U.S. Preventive Services Task Force recommendations on mammogram screening, In contrast, I demonstrated that bevacizumab use for breast cancer declined dramatically after FDA meetings and regulatory actions that did not lead to changes in guidelines and that co-prescribing of strong CYP2D6-inhibitors with tamoxifen declined substantially following dissemination of information suggesting a potential for increased risk with co-prescribing.

<u>Effectiveness/Comparative Effectiveness</u>: My research has identified harms of frequently used treatments in real-world populations. For example, in highly cited work, I was the first to identify the increased risks of diabetes and cardiovascular disease with androgen-deprivation therapy for prostate cancer. This work led to the FDA changing drug labels for gonadotropin-releasing hormone agonists to include this new risk information.

My clinical and teaching activities include seeing patients in my longitudinal primary care clinic one-half day per week and precepting four residents weekly during their afternoon continuity clinic. Remaining clinically active allows me to understand first-hand the challenges that physicians face in delivering of high quality care and the challenges that patients face in accessing affordable, high quality care. I also provide regular lectures to the residents on topics including cancer screening and reading the medical literature. Since 2012, I have served as Team Leader for my clinical team (the Red Team) in the Phyllis Jen Center, leading primary care transformation at the practice, initially as part of the Harvard Medical School Primary Care Collaborative.

Finally, I have been very active nationally in the Society of General Internal Medicine (SGIM). I served as the Program Chair of the Annual Meeting in 2004, completed a 3-year term on the organization's Council, and served as chair of the Research Subcommittee of the SGIM Health Policy Committee. I am an Associate Editor at the Journal of the National Cancer Institute and a member of the editorial board of Annals of Internal Medicine and the Journal of Clinical Oncology, and I am a member of the National Comprehensive Cancer Center Older Adult Oncology Guideline Panel. I previously served as an Associate Editor for the Journal of Clinical Oncology and was a member of the American Society of Clinical Oncology (ASCO) Clinical Guidelines Committee.