

CURRICULUM VITAE

Date Prepared: May 2021
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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 Research Fellowships

1993-1996	Clinical Fellow in Medicine	Harvard Medical School	Boston, MA
1996-1998	Fellow, Harvard Faculty Development and Fellowship Program in General Internal Medicine	Brigham and Women's Hospital	Boston, MA
1996-1998	Fellow, Department of Health Care Policy	Harvard Medical School	Boston, MA

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

Major Administrative Leadership Positions

Local

2012-	Team Leader, Phyllis Jen Center for Primary Care	Harvard Medical School Primary Care Collaborative and Brigham and Women's Hospital
2013-	Program Co-Leader, Cancer Care Delivery Research Program	Dana-Farber/Harvard Cancer Center

Committee Service

Local

1989-1990	Liaison Committee for Medical Education Task Force	University of Chicago Pritzker School of Medicine
	1989-1990 Member	
1990-1993	Dean's Council	University of Chicago Pritzker School of Medicine
	1990-1993 Class Representative	
1990-1993	Pritzker School of Medicine Committee on Admissions	University of Chicago Pritzker School of Medicine
	1990-1993 Interviewer	
	1992-1993 Student Member	
1992	Orientation to the Clinical Biennium Committee	University of Chicago Pritzker School of Medicine
	1992 Chairman and cofounder	
1993-1996, 2001-	Intern Selection Committee, BWH Residency Program	Brigham and Women's Hospital
	1993-1996 Resident Member	
	2001- Member	
1995-1996	Evidence Based Medicine Journal Club	Brigham and Women's Hospital
	1995-1996 Coordinator	
	1997- Faculty Discussion Leader	
1996-1998	General Medicine Fellows' Seminar	Brigham and Women's Hospital
	1996-1998 Coordinator	
1999-	Division of General Internal Medicine Faculty Journal Club	Brigham and Women's Hospital
	1999- Coordinator	
1999-	Brigham Internal Medicine Associates Study Review Committee	Brigham and Women's Hospital
	1999- Member and Chair	
2000-2003, 2009-2010	Faculty Search Committee, Division of General Medicine	Brigham and Women's Hospital
	2000-2003 Member	
	2009-2010 Member	

2004-2005, 2014-	Harvard Medical School Faculty Council 2004-2005 Member 2014- Member	Harvard Medical School
2005	Faculty Development Program for Physicians and Scientists 2005 Participant	Harvard Medical School
2008-	Longitudinal Medical Record Expert Panel 2008- Member	Brigham and Women's Hospital
2008-	Dana-Farber/Harvard Cancer Center Outcomes Research Program 2008- Member 2013- Co-Program Leader	Dana-Farber/Harvard Cancer Center
2009-2010	BWH Faculty Mentoring Leadership Program 2009-2010 Participant	Brigham and Women's Hospital
2010-	Population Sciences Core Scientific Advisory Board 2010- Member	Dana-Farber Cancer Center
2010-	Crimson Care Collaborative Scientific Advisory Board 2010- Member	Harvard Medical School
2010-2011 2013-2014, 2016-2017	Faculty Search Committee, Department of Health Care Policy 2010-2011 Member 2013-2014 Member 2016-2017 Member	Harvard Medical School
2011, 2015	Harvard Medical School Honors Committee 2011, 2015 Expert reader/examiner	Harvard Medical School
2011-	Joint Committee on the Status of Women 2011- Member	Harvard Medical School
2011-	Advisory Committee on Health Policy and Health Services Research, Scholars in Medicine Program 2011- Member	Harvard Medical School
2012-2017	Program in Cancer Outcomes Research Training Fellowship Advisory Committee 2012-2017 Member	Dana-Farber/Harvard Cancer Center
2012-	Primary Care Collaborative 2012- Team Leader	Phyllis Jen Center, Brigham and Women's and Harvard Medical School
2013, 2015, 2016	Student Honors Thesis Committee 2013 Member 2015 Member 2016 Member	Harvard Medical School
2013	Quality of Care Task Force 2013 Member	Dana-Farber/Brigham and Women's Cancer Center
2015-	Committee to Review Interim Title IX Procedures with Respect to the Faculty of Medicine 2015- Member	Harvard Medical School
2015-	Harvard Medical School Council of Mentors	Harvard Medical School

2015-2018	2015- Member Standing Committee on Promotions, Reappointments, and Appointments	Harvard Medical School
2015-2016	2015-2018 Member Faculty Search Committee, Peter L. Goss Chair in General Internal Medicine	Massachusetts General Hospital
2016	2015-2016 Member Harvard Tenure Review Ad Hoc Committee	Harvard University
2016-2017	2016 Member Faculty Search Committee, Department of Health Care Policy	Harvard Medical School
2017-2018	2016-2017 Member Task Force on Promotion Criteria for Clinical Expertise and Innovation and Teaching and Educational Leadership	Harvard Medical School
2017-	2017-2018 Member 2017-2018 Subcommittee Chair External Advisory Committee for NCI T32 “Training Program in Cancer Biology”	Massachusetts General Hospital Cancer Center
2017-2018	2017 Member Faculty Search Committee, Director of the Mongan Institute	Massachusetts General Hospital
2018-	2017-2018 Member Selection Committee, Program Award for Culture of Excellence in Mentoring	Harvard Medical School
2018-	2018- Member Subcommittee of Professors Promotions Committee	Harvard Medical School
2018-	2018- Member Connors Center First-in-Women Precision Medicine Platform	Brigham and Women’s Hospital Connors Center for Women’s Health and Gender Biology
2019	2018- Expert Consultant Selection Committee, Program Award for Excellence in Culture of Mentoring Awards	Harvard Medical School
2021	2019 Member Anti-Bullying Policy Working Group	Harvard University
	2021 Member	
Regional		
2005-2007	Evaluation Project Expert Panel	Massachusetts Women’s Health Network
2016-	2005-2007 Member Massachusetts Cancer Registry Advisory Committee	Massachusetts Cancer Registry
	2016- Member	
National		
2000-2003	Selection Committee	Blue Cross Blue Shield National Awards for Best Practices
2004-2006	2000-2003 Member Breast Cancer Technical Panel	National Quality Forum
2005	2004-2006 Member Evidence-Based Practice Center: The Periodic	Johns Hopkins University

	Health Exam	
2008-	2005 Technical Expert National Comprehensive Cancer Network Senior Oncology Guideline Panel	National Comprehensive Cancer Network
2008	2008- Panel Member 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: <i>Enhancing Use and Quality of Colorectal Cancer Screening</i>	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	American Society of Clinical Oncology
2012	2011-2014 Panel Member Provider Survey Initiative Expert Panel	National Cancer Institute
2013-2017	2012 Panel Member 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	Leukemia and Lymphoma Society
2014-2015	2013 Panel Member Review of Clinical Guidance for the Care of Health Conditions Identified by the Camp Lejeune Legislation	Institute of Medicine
2014-	2014-2015 Committee Member Early Detection & Screening Section for Susan G Komen's consumer education website <i>Understanding Breast Cancer</i>	Susan G Komen for the Cure Foundation
2014-2015	2014- Faculty Reviewer Advisory Board on Prostate Cancer Survivorship	Prostate Cancer Foundation
2015-2016	2014-2015 Member Search Committee, National Cancer Institute Associate Director for Healthcare Delivery Research Program	National Cancer Institute
2015-2017	2015- 2016 Member External Advisory Panel for " <i>The National Survey of Precision Medicine in Cancer</i> "	National Cancer Institute

	<i>Treatment</i>	
2018	2015- 2017 Member Alumni Awards Committee	University of Chicago
2018-2019	2018 Member Oncology Quality Measure Development National Advisory Board	Tufts Medical Center
2019-	2018-2019 Member Technical Expert Panel on Patient Attribution	Alliance of Dedicated Cancer Centers (ADCC) Quality
2019-2021	2019- Member Data Safety and Monitoring Board	Leveraging the Electronic Health Record to Nudge Clinicians to Prescribe Evidence- Based Statin Medications to Reduce the Risk of Cardiovascular Disease
2019-	2019-2021 Member External Advisory Board	University of Michigan Rogel Cancer Center
2019-2021	2019-2021 Member Committee on Diagnosing and Treating Adult Cancers	National Academies of Sciences, Engineering, and Medicine
2020	2020 Member Economics of Cancer Care: Survivorship/Supportive Care Working Group	National Cancer Institute
2021	2020 Member Systems Science & Design Committee to Expand Blumberg Distinguished Professorships Program	Johns Hopkins University
2021-	2021- Member Lancet Commission on Cancer and Health Systems	Lancet Commission

International

2010-2014	2010-2014 Technical Advisory Committee 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-	2014- Scientific Advisory Committee Commission on Global Access to Pain Control and Palliative Care	Harvard Global Equity Initiative and the Lancet
2015	2015 Panel Member Expert Panel, Breast Cancer Awareness Initiative in China	Harvard Global Equity Initiative and the Susan G. Komen Foundation
2017-	2017- Panel Member Academic Reference Group Panel	International Cancer Benchmarking Partnership

Professional Societies

1993-1999, American Medical Association

2007-	1993-1999 Member
	2007- Member

- 1993- Massachusetts Medical Society**
 1993- Member
- 1996- Society of General Internal Medicine**
 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, 27th Annual Meeting
 2004-2009 Coordinator, ABIM Continuous Professional Development Self-Evaluation Process Session at Annual Meeting
 2006, 2014, 2015 SGIM Outstanding Junior Investigator Award Committee
 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
 2015-2019 Chair, Research Subcommittee, Health Policy Committee
 2016- Program Faculty, Leadership in Health Policy (LEAHP) Program
- 1996- American College of Physicians**
 1996-2006 Member
 2006- Fellow
- 1997- Academy Health (prior Association for Health Services Research)**
 1997- Member
 2006, 2008, 2009 Annual Meeting Scientific Abstract Selection Committee
- 2007- American Society of Clinical Oncology**
 2007- Member
 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 Review Committee 2002, 2005 Ad-hoc Grant Reviewer 2003 Grant Reviewer	California Breast Cancer Research Program
2002	Scientific Review Committee 2002 Ad-hoc Grant Reviewer	National Cancer Institute
2005	Special Emphasis Panel 2005 Grant Reviewer	CDC National Center for Chronic Disease Prevention & Health Promotion
2006-2007	Psychosocial and Behavioral Research Review Committee 2006-2007 Member	American Cancer Society
2007-2011	Health Services Research Scientific Review Committee 2007-2010 Member 2010-2011 Ad-hoc Grant Reviewer	American Cancer Society
2008	Challenge Award Scientific Review Committee 2008 Member	Prostate Cancer Foundation
2010	Special Emphasis Panel “Methodology and Measurement in the Behavioral and Social Sciences” 2010 Grant Reviewer	National Institutes of Health
2010	Scientific Review Committee 2010 Ad-hoc Grant Reviewer	Dutch Cancer Society
2011-2012	Cancer Risk and Disparities Program Review Panel 2011 Co-Chair 2012 Grant Reviewer	Dana-Farber/Harvard Cancer Center
2012	Harvard Catalyst Advanced Imaging Pilot Research Grants and Concept Development Awards Program 2012 Grant Reviewer	Harvard Catalyst
2012	Scientific Review Committee, “Applying Behavioral	Robert Wood Johnson

	Economics to Perplexing Health and Health Care Problems”	
	2012 Grant reviewer	
2012-	Scientific Review Committee, Dana-Farber/Harvard Cancer Center U54 Partnership Pilot Program	Dana-Farber/Harvard Cancer Center
	2012 Grant reviewer	
	2013 Grant reviewer	
2013	Scientific Review Committee, Young Investigator Award	Prostate Cancer Foundation
	2013 Grant reviewer	
2016	Special Emphasis Panel, NCI Provocative Questions #12	National Cancer Institute
	2016 Grant reviewer	
2019	Scientific Review Committee, RFA-CA-18-017 entitled "NCI Community Oncology Research Program (NCORP) Minority/Underserved Community Sites (UG1 Clinical Trial Required)”	National Cancer Institute
	2019 Grant reviewer	
2020	Scientific Review Committee, Pennsylvania Department of Health Final Performance Reviews (Cycle 19-20A)	Pennsylvania Department of Public Health
	2020 Grant reviewer	
2021	Scientific Review Committee, RFA-CA-20-048 entitled “The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)”	National Cancer Institute
	2021 Grant reviewer	

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
PLOS-ONE
JCO Clinical Cancer Informatics
Journal of Global Oncology
Journal of Women's Health
The BMJ
Journal of Oncology Practice
PNAS

Other Editorial Roles

2004-2012	Member, Editorial Board	<i>Harvard Health Letter</i>
2007-2010	Member, Editorial Board	<i>Journal of Clinical Oncology</i>
2011-2020	Member, Editorial Board	<i>Journal of Geriatric Oncology</i>
2012-	Member, Advisory Board	<i>Harvard Medical School Newsletters for the Public</i>
2015-	Associate Editor	<i>Journal of the National Cancer Institute</i>
2016-2017	Guest Editor: The Affordable Care Act and Cancer Care	<i>The Cancer Journal</i>
2021-	Member, Advisory Board	<i>Journal of Geriatric Oncology</i>

Honors and Prizes

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

1992	Alpha Omega Alpha Honor Society	Cardiovascular Surgery 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 Internal Medicine	Outstanding Research Presentation at National Meeting
1999	Clinical Scientist Award	Doris Duke Charitable Foundation	National Research Award
2000	Milton Hamolsky Junior Faculty Award	Society of General Internal Medicine	Outstanding Research Presentation at National Meeting
2002	Author of "Best of JGIM" article	Journal of General Internal Medicine	Recognition of one of most accessed articles
2005	Outstanding Junior Investigator of the Year	Society of General Internal Medicine	
2006	Fellow, American College of Physicians	American College of Physicians	
2010	American Society for Clinical Investigation	American Society for Clinical Investigation	Honor society of young 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 Mentoring Award	Harvard Medical School	Recognition of outstanding mentoring
2015	Nominee, Excellence in Mentoring Award	Brigham and Women's Hospital	Recognition of outstanding mentoring
2016	Visiting Professor in Cancer Outcomes and Health Services Research	Johns Hopkins University	
2016	Author of one of "Top Cited Articles of 2013"	Journal of the National Cancer Institute	Recognition of one of journal's most cited articles
2016	Best Abstract in Aging, Disability, and End of Life	Academy Health	
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

Report of Funded and Unfunded Projects

Funding Information

Past

1996-1998	PI	Brigham and Women's Hospital The Primary Care Education Fund	\$3782
		Physicians Experiences and Beliefs Regarding Informal Consultation Survey of a state-wide sample of physicians about use of informal consultation in clinical practice	
1998-1999	Research Fellow	Prudential Health Care Prudential Health Services Research Fellowship	\$50,000
		Patients' experiences with ambulatory care and trust Study of how patients' experiences with their physicians are associated with trust in their physician.	
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 abstractions to identify physician and organizational factors associated with quality of care. I 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 Doris Duke Charitable Foundation Clinical Scientist Award (19991079)	\$300,000
		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 1 R01 CA92588-01	\$665,935
		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	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	PI	Brigham and Women's Hospital The Primary Care Education Fund	\$1,870

Transfer of Information Via Social Networks

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

2003-2005	PI	Doris Duke Charitable Foundation Doris Duke Charitable Foundation Clinical Scientist Award (T99040C)	\$200,000
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	PI	SPORE, National Cancer Institute 5 P50 CA090381-03	\$109,544
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	PI	Novartis ZOL446G US94	\$174,164
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	PI	National Cancer Institute R01 CA104118	\$1,045,476
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 Federal Contract 15592/18866	\$554,615
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.			
2008-2012	PI	National Cancer Institute R01 CA127652	\$686,902
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	PI	Komen Foundation Foundation Research Grant	\$300,000
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	PI	Harvard Catalyst The Harvard Clinical and Translational Science Center NIH Award UL1 RR 025758	\$50,000
<p>Improving Breast Cancer Diagnosis and Care in Mexico</p> <p>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.</p>			
2010-2012	PI	American Cancer Society Foundation Grant RSGI-09-269-01-CPHPS	\$400,000
<p>Effect of Massachusetts Health Insurance Reform on Breast Cancer Screening and Diagnosis</p> <p>Assessing the influence of health insurance reform in Massachusetts on mammography screening and earlier stage at breast cancer diagnosis for women in Massachusetts.</p>			
2010-2013	Co-investigator	National Cancer Institute R01CA142744	
<p>Use of Geographic Variations to Estimate Effectiveness with Non-Randomized Data (Landrum, PI)</p> <p>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</p>			
2011-2014	PI	Dana-Farber Cancer Institute Mazzone Disparity Award	\$100,000
<p>Understanding Racial Differences in Prostate Cancer Mortality</p> <p>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.</p>			
2008-2015	PI	Prostate Cancer Foundation Foundation Research Grant	\$450,000
<p>Prevention of Treatment and Disease-Related Morbidity during Androgen Deprivation Therapy: A Multicenter Proposal</p> <p>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.</p>			
2010-2015	PI, subcontract	National Cancer Institute R01CA106370	
<p>Black-White Differences in Advanced Cancer Communication, Acceptance and Care</p>			

(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 1R01CA164021-01A1	\$1,515,715
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-in-difference-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			

- 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 PI American Cancer Society \$132,800
PEP-17-052-01-PCSM
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.
- 2019-2022 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.
- 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.
- 2020-2022 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

2020-2025	PI	NCI R01CA255035	\$2,492,365
<p>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.</p>			

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 Deborah Schrag)
- 2019-2023 Obstetrical and Oncological Outcomes Among Reproductive Age Women with
Gynecological and Breast Cancer
National Cancer Institute (K08)
Mentoring (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)

Current Unfunded Projects

- 2015- Mentor Effects of breast density legislation on breast imaging
Assessing changes in utilization of imaging tests following breast density legislation

Report of Local Teaching and Training

Teaching of Students in Courses

1996-1997 10 third year medical students	Primary Care Clerkship Faculty Tutor	HMS Preparation time: not applicable; Contact time: 5 hours per month
1996-1998 6 first year medical students	Patient/Doctor I Faculty Tutor	HMS 10 months per year Preparation time: 1 hour per week; Contact time: 2 hours/week
1998-2002 8 first year medical students	Critical Reading of the Medical Literature (AC701.0) Faculty Tutor	HMS 5 months per year Preparation time: 1 hour per week; Contact time: 2 hours per week
2001- 200 medical students	Introduction to Health Care Policy (HC750) Lecturer	HMS 1-2 lectures per year Preparation time: 6 hours; Contact time: 2-4 hours
2004	Medical Sociology Reading course	Harvard University

8 graduate students	Lecturer	One lecture per year Preparation time: 2 hours; Contact time: 1.5 hours
2005- 10-15 masters students	Introduction to Epidemiology (EPI 208) HSPH Small Group Discussion Leader	2 months per year (2-4 sessions) Preparation time: 1-2 hours, Contact time 4-8 hours
2010-2015 8-10 medical students	Introduction to Health Care Policy (HC750) HMS Tutorial Leader	One month per year Preparation time: 12 hours, Contact time 12 hours
2010- 100 masters students	Introduction to Epidemiology (EPI 208) HSPH Core Faculty	6 weeks per year Preparation time: 2 hours, Contact time 12 hours
2016- 160 medical students	Essentials of Medicine: Part 1-Introduction to Health Care Policy (HC750) HMS Core Faculty	3 weeks per year Preparation time: 2 hours, Contact time 8 hours
2016- 10 medical students	Essentials of Medicine: Part 1-Introduction to Health Care Policy (HC750) HMS Tutorial Leader	One month per year Preparation time: 12 hours, Contact time 12 hours
2016- 100 medical students	Essentials of Medicine Health Care Policy (HC750) HMS Curriculum Development Board Member	3 weeks per year Preparation time: 10 hours
2018-2020 160 medical/dental students	Essentials of Medicine: Part 1-Introduction to Health Care Policy (HC750) HMS 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)

1999- 15 residents	“Counseling patients about breast cancer risk and breast cancer prevention” BWH 1.5 hour lecture given twice per year
1999-2005	“Managed care: How do health plans influence the delivery of care?”

	15 residents	BWH	1.5 hour lecture given twice per year
1999-	15 residents	BWH	“Reading the medical literature: How to read an article about therapy” 1.5 hour lecture given twice per year
2011-	15 post-doctoral fellows	Harvard General Internal Medicine Fellowship Program	“Writing an Abstract” 1 hour lecture given once per year
2012-	25 residents	BWH	“Breast and Colorectal Cancer Screening” 1.5 hour lecture given 4 times per year
2013-	25 residents	BWH	“Benefits and Harms of Breast Cancer Screening” 1.5 hour lecture given 4 times per year

Clinical Supervisory and Training Responsibilities

1996	Harvard Medical School Medicine 1 Clerkship, BWH Teaching Resident	8 third year medical students 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	Daily mentorship
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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, Cornell Weill Medical College

Supervised work as a junior faculty member with several publications

2006-2008 Michael Hassett, MD Assistant 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 Assistant 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 Chatterjee, MD Research Fellow, Massachusetts General Hospital
Supervised research during 4th year, 1 manuscript.

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

2009- Elyse Park, PhD Associate 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 Assistant Professor, Dana-Farber Cancer Institute
Supervised research as a junior faculty member with 2 first-author publications

2010-2013 Paola Friedrich-Medina Pediatric Oncology Fellow
Member of Fellowship Scholarship Oversight Committee

2010- Alexi Wright, MD 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 Assistant 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 Assistant Professor, Vanderbilt Medical School
Supervised research during fellowship, 1 manuscript published

2011- Stacy Gray, MD Associate Professor, City of Hope
Supervised research as junior faculty, several manuscripts

2011- Stacie Dusetzina, PhD Associate Professor, Vanderbilt University Medical Center
Supervised research during residency, numerous manuscripts published.

2011-2014 Cleo Samuel, PhD Associate Professor, University of North Carolina Medical School
Doctoral thesis committee member, 3 manuscripts published

2012- Lydia Pace, MD, MPH Assistant Professor of Medicine, Brigham and Women's Hospital
Supervised research during fellowship, numerous manuscripts; primary mentor for career development 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, several manuscripts, primary mentor for K award.

2013- Robert Griffiths, PhD Senior Health Economist, Health Economics Center of Excellence at
Boston Scientific
Member of dissertation committee, 5 manuscripts published

2014-2015 Kenneth Kehl, MD Instructor in Medicine, Dana-Farber Cancer Institute
Supervised research in year before oncology fellowship, 5 papers published

2015-2017 Lisa Rotenstein Medical Resident, Brigham and Women's Hospital
Supervised research as medical student, 1 paper published

2015-2018 Aaron Winn Assistant Professor, Medical College Wisconsin
Member of dissertation committee, 6 manuscripts published, others in progress

2014-2019 Loren Saulsbery Assistant Professor, University of Chicago
Member of dissertation committee, 1 paper published

2015-2019 Jessica Roydhouse Researcher, Federal Drug Administration
Supervised research as a doctoral student at Brown, 4 papers published

2015- Alejandro Rauh-Hain Assistant Professor, MD Anderson Cancer Center
Supervised research during Program in Cancer Outcomes Research Training Fellowship, 5 papers published

2015- Katie Greenzang Instructor, Dana-Farber Cancer Institute
Member of Fellowship Scholarship Oversight Committee 2015-2018; Co-mentor of K award 2019-2023

2016- Gabriel Brooks Assistant Professor, Dartmouth Medical School
Supervised research as junior faculty, Papers published and in progress

2016-2019 Hyosin Dawn Kim Research Scientist, University of Oregon

Member of dissertation committee, Paper published, others in progress

2017- Alex Melamed Fellow, Massachusetts General Hospital
Supervised research, papers in progress

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

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

2020- Miranda Lam, MD, MPH Instructor in Radiation Oncology, Brigham and Women's
Supervised research as junior faculty member

Formal Teaching of Peers

2006 Breast Cancer: Current Challenges and New Horizons	Lecture: Breast Cancer Treatment of Older Women: Are there Disparities? Boston, MA	Single presentation Dana-Farber Cancer Institute
2012 Practical Aspects of Palliative Care	Lecture: Recent Highlights in Palliative Care Research Cambridge, MA	Single presentation Harvard Medical School
2014 Cancer Survivorship: Optimizing Care and Outcomes	Lecture: Financial and Employment Issues for Cancer Survivors Boston, MA	Single presentation Brigham and Women's Hospital
2015 36th Annual Office Practice of Primary Care Medicine CME	Lecture: Care of the Cancer Survivor Boston, MA	Single presentation Brigham and Women's Hospital
2015 Update on Breast and Ovarian Cancer	Lecture: Mammographic screening: trends and trade-offs from a public health perspective Boston, MA	Single presentation Dana-Farber Cancer Institute
2016 Update on Women's Cancers	Lecture: Mammographic screening: trends and trade-offs from a public health perspective Boston, MA	Single presentation Dana-Farber Cancer Institute
2018, 2019 Executive Education Program for the International Foundation of Employee Benefit Plans	Lecture: Innovation spotlight: Oncology care Boston, MA	Single presentation Harvard Medical School

Local Invited Presentations

No presentations below were sponsored by outside entities.

1997	Physician Beliefs About Informal or ‘Curbside’ Consultation	Quality of Care Research Seminar Series Harvard School of Public Health, Boston, MA
1999	Surgical Treatment for Early Stage Breast Cancer—Effect of Provider Specialty on Treatment and Satisfaction	Clinical Outcomes and Policy Research Seminar Dana-Farber Cancer Institute, Boston, MA
2000	The State of Our Cancer Care System	National Council for Harvard Medicine Meeting Harvard Medical School, Boston, MA
2001	How is Outpatient Care in the Two Years Before Breast Cancer Diagnosis Associated with Stage at Diagnosis?	Clinical Outcomes and Policy Research Seminar Dana-Farber 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-Farber Cancer Institute, Boston, MA
2004	Health Status of Older Cancer Survivors	Clinical Outcomes and Policy Research Seminar Dana-Farber Cancer Institute, Boston, MA
2004	Taking Charge: Patient Advocacy for Yourself or a Loved One, “The Patient-Physician Relationship”	Longwood Seminar Harvard Medical School, Boston, MA
2005	Medicare Part D and the Medicare Modernization Act	Council for Harvard Medicine Meeting Harvard Medical School, Boston, MA
2006	Physicians Reports’ of Discussing End-of-Life Options for Terminally Ill Cancer Patients	Clinical Outcomes and Policy Research Seminar Dana-Farber Cancer Institute, Boston, MA
2006	Diabetes and Cardiovascular During Androgen Deprivation Therapy for Prostate Cancer	Massachusetts General Hospital Oncology Grand Rounds Massachusetts General Hospital, Boston, MA
2006	Financial, Insurance, and Employment among Older Long-Term Cancer Survivors	Boston Area Cancer Survivors Meeting Dana-Farber Cancer Institute, Boston, MA
2008	Cancer Patients’ Roles in Treatment Decision Making: Are they	Clinical Outcomes and Policy

	Influenced by Characteristics of the Decision?	Research Seminar Dana-Farber Cancer Institute, Boston, MA
2008	Physicians and Variations in End-of-Life Care for Patients with Cancer	Palliative Care Ground Rounds Massachusetts 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-Farber 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 Massachusetts General Hospital, Boston, MA
2010	The Role of Providers in Breast Cancer Treatment Disparities	Clinical Outcomes and Policy Research Seminar Dana-Farber Cancer Institute, Boston, MA
2011	Hospital Choice and Breast Cancer Treatment Disparities	Breast Rounds Massachusetts General Hospital, Boston, MA
2012	Diabetes Control During Androgen Deprivation Therapy Among Diabetic Men with Prostate Cancer	Clinical Outcomes and Policy Research Seminar Dana-Farber Cancer Institute, Boston, MA
2012	Effect of Massachusetts Health Insurance Reform on Mammography Use and Breast Cancer Stage at Diagnosis	Mongan Institute for Health Policy Research Seminar Massachusetts General Hospital, Boston, MA
2013	Understanding of Prognosis Among Patients with Lung and Colorectal Cancer	Clinical Outcomes and Policy Research Seminar Dana-Farber 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 Radcliffe Institute, Cambridge, MA
2014	The Affordable Care Act: The Effects of Health Care Reform on Vulnerable Populations – Session Moderator	Serving the Underserved Retreat Harvard 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-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber Cancer Institute, Boston, MA

2014	Communicating with Patients about the Benefits and Harms of Breast Cancer Screening	Breast Oncology Seminar Series Dana-Farber Cancer Institute, Boston MA
2015	Individualizing Breast Cancer Screening Decisions	Department of Medicine Grand Rounds Brigham and Women's Hospital, Boston MA
2016	Discussant, Pitfalls and Challenges in Diagnosing Breast Cancer	Primary Care Morbidity & Mortality Brigham and Women's Hospital, Boston MA
2016	Diffusion of Bevacizumab Across Oncology Practices	Dana-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber Cancer Institute, Boston, MA
2016	Trends in Cancer Screening	Cancer 2025 Symposium Harvard Medical School, Boston, MA
2016	Diffusion of Bevacizumab Across Oncology Practices	Mongan Health Policy Institute Seminar Series Massachusetts General Hospital, Boston, MA
2017	Diffusion of Bevacizumab Across Oncology Practices	Oncology Interest Group Harvard Medical School, Boston, MA
2017	Clinical vs. Machine-Learning Algorithms to Predict Cancer Stage Using Claims Data for Patients Undergoing Chemotherapy	Dana-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber Cancer Institute, Boston, MA
2017	Research to Promote Health System-Level Change, Panel Moderator	Burke Global Health Fellowship Research Seminar Harvard Global Health Initiative, Cambridge, MA
2017	Clinical and Machine-Learning Algorithms to Predict Cancer Stage Using Claims Data for Cancer Patients	Department of Population Science Research Seminar Harvard Medical School, Boston, MA
2018	Understanding Factors Contributing to Geographic Variation in Intensity of End of Life Care Expenditures	Dana-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber Cancer Institute, Boston, MA
2018	Celebration of Promotions-A View from the Promotions and Reappointments Committee	Harvard Medical School Promotion Celebration Harvard Medical School, Boston, MA
2018	Keynote Lecture: From Mentor to Mentee: Shaping a Successful Transition	Centers for Faculty Development and Diversity 2018

		Mentoring Course Harvard Medical School, Boston, MA
2019	The Oncology Care Model: Evaluation and Early Findings	Dana-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber Cancer Institute, Boston, MA
2019	SHARE: Sharing Goals of Care	Shared Decision Making Seminar Massachusetts General Hospital, Boston, MA
2020	Measuring Quality of Oncology Care Across Oncology Practices	Dana-Farber/Harvard Cancer Center Outcomes Seminar Dana-Farber 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/Ethnic Disparities in Cancer Care	Global Youth Summit on the Future of Medicine Brandeis University, Waltham, MA

National

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
- 2004 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
- 2005 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
Society of General Internal Medicine Annual Meeting
Miami, FL
- 2009 Prevention of Treatment and Disease-Related Morbidity During Androgen Deprivation
Therapy
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
- 2009 Cancer Care in the Veterans Health Administration versus the Private Sector
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
National Cancer Institute Provider Survey Methods Workshop
Invited Presentation
Bethesda, MD
- 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
- 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
- 2013 A National Evaluation of the Quality of Cancer Care in the Veterans Health 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
- 2014 What We Know About Tumor Boards: Research from the U.S
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
Discussant and Invited Professor of Cancer Research
Society of General Internal Medicine Annual Meeting
Hollywood, FL
- 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 Precourse
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
- 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 video 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

International

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

2007 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

2013 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/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
- 2018 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

	Type of Activity	Setting of Practice	Description
1993-	Outpatient primary care practice	Brigham Internal Medicine Associates, Brigham and Women's Hospital	1 scheduled session per week and urgent visits 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.
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Narrative Report

As a clinician investigator, I focus 80% of my effort on research, and the remaining time in clinical work and teaching. My health services **research activities** focus on two major areas: 1) provider, patient, and health system factors that influence quality of care and treatment decisions and (2) the effectiveness, and comparative effectiveness, of treatments in non-trial populations. My research, which primarily uses cancer care as a model, is collaborative and uses a variety of methods to address challenges to the receipt of optimal care.

I have conducted numerous studies examining factors influencing the quality of cancer care across the spectrum of disease, including screening and diagnosis, treatment, surveillance care, and end-of-life care. This work has focused on provider factors (including the types of physicians patients see and the hospitals and organizations (e.g., Veterans Affairs providers), patient factors, such as age, race/ethnicity, insurance, and clinical factors. I also have substantial experience studying end-of-life care, demonstrating sizable variations in the intensity of end-of-life care; work that has prompted my current NCI R01 focused on understanding the reasons behind these variations. I conducted work under a NCI-funded R01 to examine the effects of physician networks on adoption of new and existing cancer therapies. More recently, I am the Clinical Lead on the Oncology Care Model Evaluation team, assessing the impact of the Oncology Care Model on spending, utilization, and quality.

I have conducted several studies examining effectiveness of treatments frequently used in clinical practice in patients who were not like those in the original clinical trials. In widely-cited work, I identified an association of androgen deprivation therapy for prostate cancer with an increased risk of diabetes and cardiovascular disease. This work has led to new guidelines and an FDA drug safety communication about the risk of GnRH agonists (<http://www.fda.gov/Drugs/DrugSafety/ucm229986.htm>). My research assessing physicians' recommendations for cancer treatment of older patients and those with comorbid illness is stimulating new efforts to enroll these patients in clinical trials.

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 and recently completed a 3-year term on the organization's Council. I am currently chair of the Research Subcommittee of the SGIM Health Policy Committee. I have served as an Associate Editor for the Journal of Clinical Oncology and was previously a member of the American Society of Clinical Oncology (ASCO) Clinical Guidelines Committee. I am currently Associate Editor at the Journal of the National Cancer Institute, a member of the editorial board of the Journal of Geriatric Oncology, and a member of the National Comprehensive Cancer Center Older Adult Oncology Guideline Panel.