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**Name:** Alexandra E. Shields, Ph.D.

**Office Address:** Mongan Institute Health Policy Research Center  
Massachusetts General Hospital  
50 Staniford Street, Suite 802  
Boston, MA 02114

**Work Phone:** 617-724-1048

**Work E-mail:** ashields@mgh.harvard.edu

### Education

1982	B.A., <i>summa cum laude</i>	Sociology and Theology	Boston College
1988	M.A., <i>with distinction</i>	Systematic Theology	Boston College
1998	Ph.D.	Health Policy	Brandeis University

### Other Training

2013 –	Clinical Pastoral Education (CPE) Extended Program; Completed 2 units of CPE training		Brigham and Women’s Hospital
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### Faculty Academic Appointments

1998 – 2003	Research Assistant Professor	Public Policy Institute	Georgetown University
2001 – 2006	Lecturer in Medicine	General Medicine	Harvard Medical School
2003 – 2005	Research Associate Professor	Public Policy Institute	Georgetown University
2006 – 2010	Assistant Professor	Department of Medicine	Harvard Medical School
2006 –	Associate Faculty	Molecular and Population Genetics	Broad Institute
2010 –	Associate Professor	Department of Medicine	Harvard Medical School

### Appointments at Hospitals

2005 – 2010	Assistant Professor	Department of Medicine (Health Care Policy)	Massachusetts General Hospital
2010 –	Associate Professor	Department of Medicine (Health Care Policy)	Massachusetts General Hospital
2016 –	Presidential Scholar	Institute-Wide	Dana-Farber Cancer Inst.

**Other Professional Positions**

1988 – 1989	Community Development Consultant	Northern Samar Integrated Rural Development Project, Manila, Philippines
1988 – 1990	Boston Regional Coordinator	Healthy Start Program, Massachusetts Department of Public Health
1990 – 1993	Director, Bureau of Ambulatory Care	Massachusetts Rate Setting Commission, Commonwealth of Massachusetts
1994 – 1998	Research Associate	Council on the Economic Impact of Health System Change, Brandeis University (Stuart Altman, Chair)
1996 – 1997	Teaching Fellow, <i>National Health Policy</i>	Stuart Altman, Ph.D., Sol C. Chaikin Professor of Health Policy, Heller School, Brandeis University
2012 – 2013	Sheila Biddle Ford Foundation Fellow	Henry Louis Gates, Jr., W. E. B. Du Bois Institute for for African and African American Research

**Major Administrative Leadership Positions****Local**

2005 –	Director	Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities
2008 – 2018	Co-Director	Health Disparities Research Program, Harvard Catalyst   The Harvard Clinical and Translational Science Center
2010 –	Director	Harvard Gene-Environment and Disparities Research Initiative

**National**

2002 – 2003	Advisor/Senior Consultant	Institute of Medicine Study, “Intact but Endangered: The Health Care Safety Net”
2007	Advisor	Disparities Research Strategic Planning Process, NIH
2013	Advisor	Social and Behavioral Research Branch, NHGRI, Envisioning the Future Research Agenda for SBRB
2013	Advisor	American Society of Human Genetics, Roundtable on Genetic Ancestry Inference (consensus development process to create national guidelines addressing the use of genomic data to infer ancestry)
2015 –	Director	National Consortium on Psychosocial Stress, Spirituality, and Health

**International**

2016 –	Co-Founder & Director of Research	Jamaica Cancer Care and Research Institute (JACCRI), a non-profit organization dedicated to conducting world- class cancer research and improving access to quality cancer care for all Jamaicans and persons throughout the Caribbean
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**Committee Service****Local**

2007 – 2009	Member, Executive Leadership Committee, Cancer Disparities Research Program-in- Development	Dana-Farber/Harvard Cancer Center
2009 –	Member, Executive Committee, Cancer Risk and Disparities Research Program	Dana-Farber/Harvard Cancer Center
2009 – 2013	Core Member, Research Ethics Program	Harvard Catalyst
2010 – 2015	Internal Advisory Board Member, Lung Cancer Disparities Center (D. Williams, PI)	Harvard School of Public Health
2013 –	Member, Senior Common Room (Provide mentoring and ongoing support to undergraduates living in Mather House; Provide presentations and facilitate academic programming for the House.)	Mather House, Harvard College
2016 –	Member, Harvard Medical School LGBT Advisory Committee	Harvard Medical School
2017-	Member, Culture, Climate and Communication Subcommittee of the HMS Task Force on Diversity and Inclusion	Harvard Medical School

**Regional**

1989 – 1996	Member and Chair, Board of Directors, for a residential substance abuse treatment program serving women and their children in Roxbury, MA	Women, Inc.
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**National**

2006	Consultation on Understanding and Reducing Health Disparities	National Institutes of Health
2008	Member, National Workshop Planning Committee (Innovations in Service Delivery in the Age of Genomics)	IOM Roundtable on Translating Genomic-Based Research for Health

2008 – 2010	Member, National Advisory Council	University of California San Francisco Lesbian Health and Research Center, a collaboration of the schools of Medicine and Nursing
2009 – 2011	Advisory Board Member, Center for Comparative Effectiveness in Genomic Medicine (K. Armstrong, PI)	University of Pennsylvania
2010 – 2011	Member, The NHGRI Phenotypes and eXposures (PhenX) Project, Social Environments Working Group	National Human Genome Research Institute, NIH
2017	Planning Committee, Annual Conference on Medicine and Religion	University of Chicago Program on Medicine and Religion; Duke University Center for Spirituality, Theology, and Health

**Professional Societies**

- 1990 – American Public Health Association
- 2000 – Academy Health
- 2000 – American Association for Cancer Research
- 2001 – Society for Research on Nicotine and Tobacco
- 2003 – Society for Social Studies of Science
- 2003 – National Academy of Social Insurance
- 2005 – American Society for Bioethics and Humanities
- 2005 – American Association for the Advancement of Science

**Grant Review Activities**

2008 – 2010	Ethical, Legal, Social Implications of Genetics Study Section; National Human Genome Research Institute (Permanent Member)	Center for Scientific Review, NIH
2008 –	Nodal Award Pilot Grant Program Review Panel (Ad Hoc Member)	Dana-Farber/Harvard Cancer Center
2010 – 2013	Societal and Ethical Issues in Research Study Section (Permanent Member)	Center for Scientific Review, NIH
2016	Ad Hoc Reviewer	The John Templeton Foundation
2017	H3Africa National Human Genome Research Institute Study Section	Center for Scientific Review, NIH

**Editorial Activities****Ad-hoc Reviewer**

*Pharmacogenomics*  
*PLOS One*  
*Health Services Research*  
*Journal of General Internal Medicine*  
*Journal of Ambulatory Pediatrics*  
*Public Health Genomics*

*Health Affairs*  
*Medical Care*  
*Nicotine and Tobacco Research*  
*Addiction Science and Clinical Practice*  
*Pediatrics*

**Honors and Prizes**

1982	B.A., <i>summa cum laude</i> Phi Beta Kappa Order of the Cross and Crown Alpha Sigma Nu Honors Program, Sociology	Boston College Boston College Chapter Boston College Chapter Boston College Chapter Boston College
1986 – 1988	Bernard J. Lonergan Scholar in Theology ( <i>Full merit scholarship awarded to one incoming master's student each cohort.</i> )	Boston College
1993 – 1996	Pew Health Policy Scholar ( <i>One of 18 scholars selected nationally to receive full scholarship, stipend, and professional development in national health policy.</i> )	Pew Charitable Trusts
1996 – 1997	Health Services Research Fellowship	Agency for Health Care Policy and Research
1997 – 1998	AHCPR Dissertation Award (R03)	Agency for Health Care Policy and Research
1998	John Heinz National Dissertation Prize, Honorable Mention	National Academy of Social Insurance, Washington, DC
2003	Elected Member, National Academy of Social Insurance	National Academy of Social Insurance, Washington, DC
2009	Team Research Award (IHP Health Information Technology Team)	MGH Clinical Research Day

**Report of Funded and Unfunded Projects****Funding Information****Past**

09/01/96 – Principal Investigator Agency for Health Care Policy and Research \$30,000  
05/31/97 R03 Dissertation Award

***Medicaid Managed Care: Does Plan Type Matter?***

Goal: To develop and apply claims-based measures to assess the quality of asthma care provided to Medicaid-enrolled children with asthma by various provider types following Massachusetts' transition to Medicaid managed care.

12/01/98 – Principal Investigator Commonwealth Fund \$11,389  
12/31/99

***Community Health Centers and Pediatric Asthma Care***

Goal: Commissioned paper on the performance of CHCs versus other provider types in caring for Medicaid-enrolled children with asthma.

04/01/99 – Principal Investigator The Henry J. Kaiser Family Foundation \$70,000  
12/31/00

***Trends in Hospital Care for the Uninsured and Medicaid Patients***

Goal: To analyze financial and other hospital data from the American Hospital Association to investigate trends in service to Medicaid and Uninsured Patients among safety net hospitals, and the impact on hospital margins.

07/01/99 – Principal Investigator Health Resources and Services Administration \$32,386  
12/31/99 HRSA 99-0418

***Community Health Center Performance in the Era of Managed Care***

Goal: To compare quality performance of CHCs, an HMO and a Medicaid PCCM program in caring for Medicaid-enrolled children with asthma.

02/01/00 – Principal Investigator Robert Wood Johnson Foundation \$161,669  
07/31/02 037307

***Developing and Applying Claims-Based Process of Care Measures for Medicaid-Enrolled Children with Asthma***

Goal: Investigate racial disparities in the process of care and related health outcomes for Black, white and Hispanic children with asthma enrolled in the Massachusetts Medicaid Managed Care Program.

05/01/00 – Co-Investigator Robert Wood Johnson Foundation  
06/30/02 38689

***Assessing the Dynamics of Americans' Access to Health Coverage* (Pollitz)**

Goal: Conduct a national survey to assess access to health insurance among individuals with prior health conditions and identify barriers to affordable coverage.

07/01/00 – Principal Investigator Robert Wood Johnson Foundation \$489,194  
 06/30/02 039792

***Tailoring Smoking Cessation Treatment by Genotype: Implications for Ethics and Clinical Practice, Phase I***

Goal: As one of the 4 research projects of the Georgetown Transdisciplinary Tobacco Use Research Center (C. Lerman, PI), the goal of this project was to conduct policy analyses, focus groups and a national survey of primary care physicians to identify challenges associated with translating emerging genetics research on smoking into improved smoking cessation treatment. This project also included the development of The Georgetown Ethics Research Consortium on Smoking and Genetics, a national transdisciplinary research group that conducted ethical and policy analyses related to individualized smoking treatment.

06/15/01 – Principal Investigator Catholic Health Association \$175,000  
 02/28/02

***A Commitment to Caring: The Role of Catholic Hospitals in the Nation’s Health Care Safety Net***

Goal: To assess the role of Catholic Hospitals in caring for poor and uninsured patients in seven national markets through analyses of hospital level data and in-depth case studies of Catholic Hospital systems and neighboring safety net providers in Los Angeles CA, Martin KY, Detroit MI, Hoboken NJ, Queens NY, San Antonio TX, and Washington DC.

07/01/02 – Principal Investigator Robert Wood Johnson Foundation \$939,140  
 08/31/06 043740

***Tailoring Smoking Cessation Treatment by Genotype: Implications for Ethics and Clinical Practice, Phase II***

Goal: This transdisciplinary effort examined the ethical and social implications of integrating genetically tailored smoking cessation treatment into primary care practice. This project included convening a national ethics research consortium, conducting various ethical analyses, and conducting qualitative and survey research. We evaluated the attitudes of primary care physicians and smokers toward genetic-based treatments for smoking cessation through focus groups and a national survey, and published numerous articles on ethical dimensions of genomics research.

07/01/04 – Principal Investigator NIH/NHGRI \$450,000  
 07/01/07 P20 HG003400-02

***Developing a Center of Excellence in Ethical, Legal and Social Implications (ELSI) Research (CEER) on Theme of “Genetics, Vulnerable Populations and Health Disparities”***

Goal: To develop a Center that is dedicated to examining the complex intersection of emerging genetics research and the persistent problem of health disparities through in-depth analysis of smoking, asthma, and other chronic conditions. Through this developmental award, we conducted a national survey of community health centers’ capacity to deliver genetics services, developed a partnership with a large national insurer to track the diffusion of genomic medicine nationally and conducted two initial data analyses, and developed pilot data to support a future R01 (awarded from NHGRI in 2006).

09/30/04 – Subcontract Principal U Pennsylvania Subcontract  
 08/31/05 Investigator 543534-D

***Transdisciplinary Tobacco Use Research Centers (Lerman)***

Goal: To lead policy analyses addressing ethical and social issues engaged by the prospect of genetically tailored smoking cessation treatment in routine clinical practice.

10/01/04 – Principal Investigator Department of Defense \$340,000  
 03/30/06 04-M14

***Consortium on Complex Chronic Illness: Improving Health Care Experiences and Quality of Care Among Military Health System (MHS) Beneficiaries Living with Chronic Illness*** (Shields)  
 Goal: To benchmark the national DoD TRICARE population against the Veteran’s population and a national commercially insured population with respect to prevalence and costs associated with high priority chronic conditions.

09/30/05 – Subcontract Principal U Pennsylvania Subcontract  
 07/31/09 Investigator 5 P50 CA84718-10

***Transdisciplinary Tobacco Use Research Center*** (Lerman)  
 Goal: To co-lead (with David Asch) the Research to Practice Core of Dr. Lerman’s TTURC. This involved leading national workshops on key areas related to translating individualized smoking cessation treatment into practice, conducting policy analyses and issue briefs for dissemination to the policy community, presenting briefings on Capitol Hill, and participating in writing publications.

10/01/05 – Co-Investigator Department of Health and Human Services  
 09/30/06

***HIT Adoption Initiative*** (Blumenthal)  
 Goal: To conduct national surveys to assess the level of Health Information Technology (HIT) adoption among physicians and hospitals in the U.S., and to provide additional analytic expertise to the Office of the National Coordinator as needed.

01/01/06 – Co-Investigator Robert Wood Johnson Foundation  
 03/31/08 051912

***Annual Report on the Dissemination and Use of HIT in the U.S.*** (Blumenthal)  
 Goal: To collect and synthesize available information on HIT dissemination and implementation, and to highlight policy options for promoting equitable access to the benefits of HIT-enhanced healthcare among underserved communities. Co-authored an Annual Report on the Dissemination and Use of HIT in the United States.

05/19/06 – Principal Investigator Dana-Farber/Harvard Cancer Center \$149,998  
 11/30/09 P30CA06516-43; Nodal Award 2007-02-NNd

***Building Capacity to Monitor the Impact of Genetically Tailored Prevention Treatment on Cancer Disparities***  
 Goal: To develop strategies for using large national administrative databases and EHRs to track the diffusion and clinical impact of genetically tailored cancer prevention and treatment, with a focus on disparities (by race/ethnicity and by household income) in access to available genetic tests to assess breast cancer and colorectal cancer risk. This project provided pilot data used in manuscripts and R01 applications.

09/28/06 – Principal Investigator NIH/NHGRI \$1,284,875  
 07/31/13 R01 HG003475-03

***Lay Understandings of Race, Genetics, and Addiction***  
 Goal: To understand lay attitudes and beliefs about the role of genetics in addiction to alcohol, cocaine, and nicotine through a national random digit dial survey of self-identified Black and white Americans (N=2400). Among a subset of smokers (n=417), to assess how these beliefs affect use of pharmacotherapy in quit attempts and willingness to undergo genetic testing in order to be matched to optimal smoking cessation treatment.



09/28/06 – Principal Investigator NIH/NHGRI \$68,572  
 07/31/13 R01 HG003475-03-S1

***Supplement to Lay Understandings of Race, Genetics, and Addiction***

Goal: To contextualize, through qualitative research, results from our national random digit dial survey showing striking black/white differences in beliefs about factors most important in determining a smokers' ability to quit. Understanding potential barriers to black smokers' uptake of new pharmacogenomic treatment strategies for smoking cessation is critical to addressing racial disparities in lung cancer and other smoking-related illnesses.

10/01/06 – Co-Investigator HHSP23320045013XI  
 12/31/09 GWU Sub Task Order DHHS  
 Task Order HHSP233000001T

***Measuring the Adoption and Use of Electronic Health Records*** (Rosenbaum)

Goal: This initiative is aimed at better characterizing the state of EHR adoption through the accurate measuring of adoption by solo physicians and group practices in the U.S. via a national survey.

04/01/08 – Co-Investigator Robert Wood Johnson Foundation  
 10/31/10 63431

***Annual Report on the Dissemination and Use of HIT in the U.S.*** (Blumenthal)

Goal: To collect and synthesize available information on HIT dissemination and implementation, with a particular focus on differential rates of HIT adoption and capacity among minority-serving physicians and hospitals, to be incorporated into our Annual Report on the Dissemination and Use of HIT in the United States.

05/19/08 – Co-Director, NIH  
 04/30/18 Catalyst Health 1 UL1 RR 025758-01  
 Disparities Research  
 Program

***Harvard Clinical and Translational Science Center*** (Nadler)

Goal: To provide enriched resources to educate and develop the next generation of researchers trained in the complexities of translating research discoveries into clinical trials and into practice. The Health Disparities Research Program is charged with facilitating innovative, transdisciplinary research that draws on the breadth of expertise throughout the Harvard community to generate new insight into health disparities and develop new strategies to reduce disparities. The Research Ethics Program seeks to engage diverse researchers in identifying and addressing ethical issues that arise in the context of conducting state-of-the-art research across multiple institutions (e.g., harmonizing IRBs, addressing issues of informed consent in combining multiple cohorts for large scale GWAS studies).

07/01/10 – Principal Investigator Dana-Farber/Harvard Cancer Center \$149,959  
 06/30/13 P30CA06516-43  
 Nodal Award - 2010-15-NND

***Leveraging Gene-Environment Interactions (GEI) Research to Reduce Cancer Disparities***

Goal: This pilot study engages leading researchers from diverse disciplines across Harvard in an effort to identify and prioritize measures of the social environment, physical environment, and behavior judged to be especially important to include in GEI studies in order to generate new insight into cancer disparities. These measures will be piloted in two ongoing breast cancer GWAS studies (Nurses' Health Study; Multiethnic Cohort Study). A transdisciplinary conceptual model and recommended measures will be disseminated throughout the DF/Harvard Cancer Center to facilitate disparities-focused genomics research in various cancer phenotypes.

09/01/10 – Principal Investigator Harvard Interfaculty Programs \$302,776  
04/30/12

***Leveraging Gene-Environment Interactions (GEI) Research to Reduce Health Disparities***

Goal: This Harvard-wide Initiative brings together leading researchers from diverse fields (population genomics, medicine, epidemiology, health policy, environmental exposure science, psychology, psychiatry, sociology, bioethics and history of medicine) to identify and prioritize measures of the “environment” that are especially important to include in GEI studies in order to better understand health disparities. Transdisciplinary working groups in social measures, environmental exposures, and behavior will prioritize key measures in these domains, and pilot select measures in ongoing genomics studies at the Broad Institute, HMS, and HSPH. This effort expands the Nodal Award project funded by the Dana-Farber/Harvard Cancer Center to address measures of the physical environment, social environment, and behavior important to understanding the etiology of diseases other than cancer.

10/01/11 – Principal Investigator NIH/NCI 3P50CA148596-02S1 \$259,992  
04/30/14

***Lung Cancer Disparities Center: Jointly Addressing Race and Socioeconomic Status***

Goal: To conduct empirical bioethics research aimed at identifying optimal ways to frame, communicate, and disseminate lung cancer research results to minority-serving providers in community settings. This qualitative study includes focus groups and one-on-one interviews with minority-serving providers in five Boston-area Community Health Centers.

07/01/12 – Subcontract Principal Harvard Catalyst Pilot Award  
11/30/13 Investigator

***Validating Epigenetic Markers for Studies of Disparities*** (Baccarelli)

Goal: To understand epigenetic mechanisms activated by stress that may increase risk of estrogen receptor-negative (ER-) cancer, an aggressive subtype of breast cancer that disproportionately affects black women and contributes to their higher mortality rates.

04/01/14 – Principal Investigator The John Templeton Foundation \$2,748,020  
03/31/19 Grant 48424

***Expanding the Inclusion of Religiosity/Spirituality Measures within National Cohort Studies in the U.S.***

Goal: To build national infrastructure to support studies investigating the potential ways that S/R might mitigate the adverse effects of stress on the body across multiple phenotypes in the context of gene-environment studies. Using a mixed-methods approach, including comprehensive assessments of measures currently available within high quality prospective cohorts, interviews, theoretical work, and innovative empirical analyses, this study will produce a body of work to inform the identification of a limited R/S dataset to promote for inclusion in U.S. cohort studies.

02/01/16 – Principal Investigator The John Templeton Foundation \$285,131  
01/31/19

***Spiritual Narratives at the End of Life: Implications for Patient Decision-Making and End-of-Life Care***

Goal: To conduct in-depth interviews with 60 terminally ill cancer patients (20 Black, 20 Latino, 20 white) to elucidate the relationship between individuals’ religiosity or spirituality (R/S), their wishes regarding the end of life (EOL), and EOL care received.

07/01/17 –	Joint Principal	NIH/NCI U54 CA156734	\$199,974
08/31/19	Investigator	Pilot Project	

***Advancing Disparities-Focused Cancer Genomics Research: Understanding the Role of Somatic Mutations in Prostate Cancer in African-Caribbean Men*** (Shields, Huang, Cai)

Goal: African-Caribbean men may have the highest incidence of prostate cancer in the world, yet there have been no studies on somatic mutations in prostate cancer that have included this subpopulation. To address this critical need, we will conduct a cancer genomics pilot with samples contributed by Jamaican men with aggressive primary prostate cancer. Specific aims are to: (1) determine the somatic genomic landscape of prostate cancers in African-Caribbean men, with sequencing to be performed in partnership with the Genomics Core of the DF/HCC-UMB U54; and (2) conduct a functional characterization of FOXA1 mutations across African ancestry. The proposed analyses will be the first that allow for a characterization of the genomic mutations and alterations in this important subpopulation that experiences some of the highest prostate cancer rates in the world, and provide preliminary data for a highly competitive future R01.

04/01/19 –	Principal Investigator	Massachusetts General Hospital	\$86,250
03/31/20		ECOR Deliberative Interim Support Funding	

***Investigating Community Health Centers' Capacity to Deliver Genomic Medicine***

Goal: This interim support will allow for the further development and resubmission of an R01 project that will involve case studies and a national survey of Community Health Center Medical Directors to lay the foundation for investigating equitable access to genomic medicine.

## Current

03/01/16 –	Principal Investigator	The John Templeton Foundation	\$3,043,457
02/28/21		Grant 59607	

***National Consortium on Psychosocial Stress, Spirituality, and Health***

Goal: Using survey data and existing cohort data from six national cohorts, this national collaborative study will investigate the role of psychosocial stress in the etiology of disease via epigenetic and telomere analyses, and to assess the potential buffering effect of spirituality and other positive mediators. A short list of the most robust measures of religiosity and spirituality will be developed based on research conducted, and disseminated to U.S. prospective cohort studies nationally in order to build the research infrastructure needed to support a new generation of high-quality, prospective studies seeking to understand the role of religion and spirituality in the etiology of disease, and how R/S may operate differently across racial/ethnic communities, thereby helping to understand existing health disparities and identify new leverage points for addressing existing disparities.

01/01/18 –	Principal Investigator	The John Templeton Foundation	\$1,092,352
02/28/21		Grant 59607 (Supplement)	

***National Consortium on Psychosocial Stress, Spirituality, and Health (Supplement)***

Goal: An expansion to our National Consortium on Psychosocial Stress, Spirituality, and Health, this Supplement provides funds to (1) conduct an epigenome-wide association study (EWAS) pilot in a sample of 800 Consortium study participants to keep pace with methodological developments in the field so as to be considered state of the art, and therefore publishable, (2) add Brazilian cohorts to our Consortium to provide an international perspective, and (3) expand our study population to increase the number of Hispanics/Latinos and American Indians to achieve closer representation to other racial/ethnic groups in the study population.

09/01/20 – Principal Investigator The John Templeton Foundation \$233,965  
02/28/21 Grant 59607 (Supplement)

***National Consortium on Psychosocial Stress, Spirituality, and Health (Supplement)***

Goal: This Supplement provides funds to complete additional analyses, including psychometric and machine learning analyses. This analytic work will increase the robustness of the evidence base generated by the National Consortium on Psychosocial Stress, Spirituality, and Health regarding R/S influences on risk of chronic disease, thereby assisting us in identifying the most clinically significant R/S measures to recommend for inclusion in U.S. cohort studies.

03/01/21 – Principal Investigator The John Templeton Foundation \$2,737,088  
02/28/24 Grant 62016

***Investigating the Impact of Multiple Dimensions of Religion and Spirituality on Risk of CVD across Diverse Racial/Ethnic Communities***

Goal: Religion and spirituality (R/S) are critical sources of hope and resiliency for millions of people. With the exception of church attendance and mortality, however, there have been few prospective studies assessing the influence of R/S on disease risk, due to the limited number of R/S measures available in national cohort studies. Such cohorts are our nation's primary resource for identifying risk factors for innumerable diseases. They have the rich social, environmental, lifestyle, and clinical data needed to conduct high-quality, prospective R/S studies. This project seeks to prospectively assess the impact of R/S on incident cardiovascular disease, investigate biological pathways through which R/S affects health using previously created biomarkers of stress (DNA methylation, telomere length), and conduct cutting-edge psychometric and machine learning analyses of the R/S survey developed by our team. In sum, the proposed research will help identify the most important R/S measures to encourage cohorts to collect, and develop a transformative national research infrastructure to support innumerable high-quality R/S studies in the future.

**Report of Local Teaching and Training**

**Teaching of Students in Courses**

**Teaching During Current Harvard Appointment**

**HMS Courses**

2006	Human Genetics (IN755.0, David Altshuler & Joel Hirschhorn) 1 <sup>st</sup> Year Medical Students	Invited Lecturer	Single Presentation ( <i>Race, Genomics, and Health Disparities</i> )
2006	Harvard Bioethics Course (Div. of Medical Ethics, Annual Short Course Enrollees)	Invited Lecturer	Single Presentation ( <i>Race, Genomics, and Personalized Health Care</i> )
2007	Human Genetics (IN755.0, David Altshuler & Joel Hirschhorn) 1 <sup>st</sup> Year Medical Students	Invited Panelist	Panel Member on the topic of <i>Race, Genomics, and Health Disparities</i>

2018	Foundations (PWY 100, Randy King, MD, PhD)	1 <sup>st</sup> Year Medical Students	Invited Panelist	Panel Member on the topic of <i>Race and Genetics</i> in rebuttal to David Reich's New York Times piece: "How Genetics is Changing Our Understanding of 'Race'"
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**Short Courses (jointly sponsored by the Harvard Catalyst and the Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities)**

2010 –	Gene-Environment and Disparities Research Workshop Series		
2011	Harvard Junior Faculty & Post-Docs	Course Director	Developed and directed an 11-session transdisciplinary workshop series addressing conceptual, methodological, and measurement issues key to conducting innovative research to understand the complex role of social, environmental, behavioral, and genetic factors in the etiology of health disparities
2014, 2016	Telomere Length & Stress: Incorporating Novel Methods into Disparities Research Harvard Junior Faculty & Post-Docs	Course Director	Workshop conducted with Immaculata De Vivo
2014	A Step-by-Step Tutorial to Designing, Building, and Conducting an Epigenetic Investigation Harvard Junior Faculty & Post-Docs	Course Director	Workshop conducted with Andrea Baccarelli
2014	Metabolomics: Workflows, Challenges, and Strategies Harvard Junior Faculty & Post-Docs	Course Director	Workshop conducted with Clary Clish
2014	Incorporating Measures of the Built and Social Environment into Disparities Research Harvard Junior Faculty & Post-Docs	Course Director	Workshop conducted with Jennifer Haas, Francine Laden, and Peter James
2015	Cutting-Edge Methods for Exploring the Connection between Air Pollution and Health Disparities Harvard Junior Faculty & Post-Docs	Course Director	Workshop conducted with Gary Adamkiewicz and Francine Laden

2017 How Disadvantage Gets “Under the Skin:” Using Epigenomic Methods to Better Understand & Address Health Disparities  
 Nationally Harvard Course Director National Symposium conducted with  
 Investigators & Andrea Baccarelli  
 Epidemiologists and  
 Public Health  
 Researchers

### Other Harvard University Courses

2006 Issues in Minority Health Policy (SHH298, Joan Reede)  
 Public Health Students Invited Lecturer Single Presentation (*Intersections of Genetics Research and Health Disparities: The Use of Race Variables in Genetics Studies of Complex Traits*)

2006 Race, Ethnicity, and Health: Perspectives from the Social and Behavioral Sciences (HSB207, Gary Bennett)  
 Public Health Students Invited Lecturer Single Presentation (*Race Constructs in Genetics Research*)

2007 Issues in Minority Health Policy (SHH298, Joan Reede)  
 Public Health Students Invited Lecturer Single Presentation (*Race, Genetics, and Health Disparities: Developing a National Research Agenda*)

2008 Issues in Minority Health Policy (SHH298, Joan Reede)  
 Public Health Students Invited Lecturer Single Presentation (*Intersections of Genetics Research and Health Disparities: The Use of Race Variables in Genetics Studies of Complex Traits*)

### Other Research Supervisory and Training Responsibilities

2002 – 2003 Master’s Thesis Supervisor (2 hours per week)  
 Kathy Gruene, M.P.P.

2003 – 2004 Doctoral Program Advisor (2 hours per week)  
 John Orwat, Ph.D.  
 Brandeis University

2004 – 2005 Mentor & Supervisor (2 hours per week)  
 Jackie Johnson, M.P.H.  
 Boston University School of Public Health

2004 – 2005 Doctoral Program Advisor (4 hours per week)  
 Robin Lee, M.P.H.  
 Brandeis University

2007 – 2009	Mentor & Supervisor Carolina Martinez-Castaldi, M.D., M.P.H. Boston University School of Public Health	(1 hour per week)
2014 –	Master’s Program Mentor & Medical School Advisor Bobak Seddighzadeh, M.A. New York University (M.A.) University of Nevada (M.D. Candidate)	(4 hours per week 2014-2016; 1 hour per month 2017+)
2016 –	Doctoral Program Advisor M. Austin Argentieri, M.Phil. Oxford University (D.Phil. Candidate)	(4 hours per week)
2016 – 2019	Mentor & DFCI CURE Supervisor Weaam Arman Massachusetts College of Pharmacy and Health Sciences	(1 hour per week in 2016 and 2017)
2017 – 2019	Mentor & DF/UMB U54 Supervisor Ana Johnson Escauriza University of Massachusetts - Boston	(1 hour per week)
2017 – 2018	Master’s Thesis Advisor & Mentor Jeeyun Kim, B.A. Harvard T.H. Chan School of Public Health	(1 hour per week)
2019 – 2020	Mentor & Independent Research Supervisor Nikitha Vicas University of Texas at Dallas	(1 hour per week)
2019 –	Mentor & K Award Application Advisor Jenny Zhen-Duan Harvard University	(1 hour per week)

### **Formally Supervised Trainees**

2006 – 2015 Douglas Levy, Ph.D., M.P.H. Assistant Professor in Medicine, Harvard Medical School

Dr. Levy, a former junior faculty member within my Center, established an independent line of research focused on genetically tailored smoking cessation, cost effectiveness analysis, and tobacco control policies. He won a 5-year career training grant and is PI on an RWJF grant. I provided ongoing supervision and support to him through my various projects on which he was a co-Investigator.

2007 – 2009 Stacey Byfield, Ph.D., M.P.H. Senior Researcher, i3 Innovus  
During her two-year post-graduate PCORT fellowship at the MGH Institute for Technology Assessment, I mentored Dr. Byfield as part of my Nodal Project team. She led our analysis of genetic risk assessment for colorectal cancer and coauthored a paper from this project. I continue to mentor and collaborate with her, during both her time as a Pharmacoeconomics Research Specialist at MD Anderson Cancer Center, and her new role at i3 Innovus.

2013 – 2014 Fatma Zohra Mataoui, M.D., R.N. Doctoral Candidate, University of Massachusetts Boston

I hosted and mentored Dr. Mataoui, UMass Boston Ph.D. student, for her Fall 2013 doctoral research practicum, as part of the U56/U54 Dana-Farber/Harvard Cancer Center Initiative.

2014 – 2015 Sairaman (Anand) Nagarajan, M.D., M.P.H. Post-Doctoral Research Fellow, Harvard Medical School

I mentored Dr. Nagarajan on gene-environment research and current applications of methylation analyses to investigate the role of stress in health and health disparities. I met with him two hours per week (Nov 2014 – June 2015) resulting in two published manuscripts.

2015 – 2017 Maryam Farvid, Ph.D. Post-Doctoral Research Fellow, Harvard Medical School

I mentored Dr. Farvid on gene-environment research and the role of stress in health and health disparities research. I met with her two hours per week (October 2015 – January 2017) resulting in one manuscript.

2016 – 2018 Nicholas Spence, Ph.D. Post-Doctoral Research Fellow, Harvard Medical School

I mentored Dr. Spence on the use of prospective cohort data, longitudinal methods, multilevel analysis, health disparities, and gene-environment research. I meet with Dr. Spence four hours per week. Dr. Spence was nominated for a highly prestigious Tier II Canada Research Chair in “Health Inequality and Social Justice.” As part of the proposed Canada Research Chair program, under my mentorship, Dr. Spence is developing a collaborative project between the “National Consortium on Psychosocial Stress, Spirituality, and Health” and the largest national prospective cohort study in Canada to facilitate world class comparative work on the association between social/environmental exposures, psychosocial stress, mediators/modifiers (e.g., religion and spirituality), gene methylation, telomere length attrition, and chronic disease. In 2016, Dr. Spence and I conducted focus groups across the country to understand the sources of resilience, including religion and spirituality, for understudied and vulnerable populations, including Blacks, Hispanics, and Native Americans. In 2018, Dr. Spence began a full-time tenure-track Associate Professor faculty position at the University of Toronto. This unique position is jointly held in the Department of Sociology and the new Interdisciplinary Centre for Health and Society, with appointments in the Dalla Lana School of Public Health and Faculty of Medicine. Dr. Spence continues to collaborate with us, focusing on spirituality, health, and health inequalities in Canada. at various stages of four first-authored manuscripts and he will be co-authoring several others.



2016 – 2018 Aisha Dickerson, Ph.D.

Post-Doctoral Research Fellow, Harvard School of Public Health

During Dr. Dickerson's postdoctoral fellowship in Environmental Epidemiology at the Harvard T.H. Chan School of Public Health, I am mentoring her to help her build skills in the health disparities aspect of environmental injustice. She led our efforts on data collection for environmental exposures in the Jamaica Cancer Care and Research Institute (JACCRI). Dr. Dickerson is also currently building an environmental exposure atlas for the National Consortium on Psychosocial Stress, Spirituality, and Health, an initiative for which I am Director and PI.

2016 – Erica Warner, Sc.D., M.P.H.

Assistant Professor, Harvard Medical School

Since Dr. Warner joined the faculty at Massachusetts General Hospital in the Department of Medicine, I have mentored her in the area of psychosocial factors; biological measures of stress, including DNA methylation and telomere length; and qualitative research methods. I meet weekly with Dr. Warner to discuss ongoing projects and career development.

2017 – Mark Stoltenberg, M.D., M.P.H.,  
M.A.

Clinical Instructor, Harvard Medical School;  
Attending Physician, Massachusetts General  
Hospital Division of Palliative Care and  
Geriatrics

Dr. Stoltenberg works in provider education and training in palliative medicine within low and middle income countries (LMICs), the development of curricula in palliative medicine tailored to specific LMIC needs and context, and research addressing access and quality of palliative care within LMIC populations to support the development of palliative care services and education programs around the world. He is a core faculty member of the Jamaica Cancer Care and Research Institute, founded and supported by our Center and serves as a palliative care and public health advisor to the Pan American Health Organization.

2017 – Bethany-Rose Daubman, M.D.

Instructor in Medicine, Harvard Medical  
School; Attending Physician, Massachusetts  
General Hospital Division of Palliative Care  
and Geriatrics

Dr. Daubman is a core faculty member within the Jamaica Cancer Care and Research Institute co-founded by me and Drs. Dingle Spence and Jennifer Alexander in Kingston, Jamaica, and supported by our Center. Her research interests include the development of curricula for palliative care training in low and middle income countries, the delivery of provider education and training in palliative medicine; and cancer research addressing the end of life issues across different racial/ethnic groups and within low socioeconomic strata. She serves as the Assistant Director of Continuing Medical Education and is the Director of Outpatient Palliative Care E-Consult Services at Massachusetts General Hospital.

2018 – Blake Kent, Ph.D.

Assistant Professor, Westmont College

Dr. Kent is an Assistant Professor of Sociology at Westmont College. He currently serves on the boards of *Review of Religious Research* and the Public Health, Religion, and Spirituality Network. His research is centered on associations between religion/spirituality and mental and physical health, with particular attention given to subjective religious and spiritual experiences, particularly attachment to God. His current interdisciplinary projects utilize data drawn from the Center's five racially and ethnically diverse U.S. cohort studies participating in the National Consortium on Psychosocial Stress, Spirituality, and Health, and the Study on Stress, Spirituality and Health, with the goal of identifying how religion and spirituality affect disease etiology in

diverse populations. His work has appeared in *Journal for the Scientific Study of Religion*, *Health Psychology*, *Quality of Life Research*, *Ethnicity & Health*, *Research on Aging*, *Journal of Aging & Health*, and others. As a Post-Doctoral Research Fellow at the Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities from 2018-2020, he conducted analyses in religion, spirituality, and mental well-being and developed skills in complex data management, data collection, longitudinal analysis, and application of biomarkers in these fields. I continue to mentor Dr. Kent as a junior collaborator in the Study on Stress, Spirituality and Health.

2018 – Oluwaseyi (Seyi) Isehunwa, Ph.D., Research Associate, Harvard/MGH Center on  
 MBChB (M.D. equiv.), M.P.H. Genomics, Vulnerable Populations, and  
 Health Disparities

Dr. Isehunwa was a Post-Doctoral Research Fellow at the Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities from 2018-2020. She holds a PhD in Health Systems and Policy from the University of Memphis and an MPH (Epidemiology and Maternal & Child Health) from Boston University. Her research interests include chronic disease, social determinants of health, and health disparities. Dr. Isehunwa has sought to characterize the burden of chronic diseases, demonstrate the persistence of disparities in cost related medication non-adherence among patients with chronic diseases, and evaluate how recent policies can improve health care. She has extensive experience working with the African immigrant community and with several faith-based organizations. During her post-doctoral training, she investigated the impact of psychosocial stressors on telomere length, DNA methylation, and cortisol/DHEA, and depression and sleep quality, and the modifying effect of select measures of religiosity and spirituality. Dr. Isehunwa continues to work with the Study on Stress, Spirituality, and Health.

2019 – James Clark Davidson, Ph.D. Assistant Professor, California State  
 University, Northridge

Dr. Davidson is an Assistant Professor of Sociology at California State University, Northridge and Research Associate at the Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities. Dr. Davidson was formerly a Pre-Doctoral Research Fellow at our Center in 2019 while completing his doctoral studies in Sociology of Religion at Baylor University. His dissertation work assessed the role of discrimination on risk of obesity, and the moderating influence of select measures of religiosity and spirituality, using data from the Study on Stress, Spirituality and Health. He continues to be engaged in the research of the Study on Stress, Spirituality, and Health as a collaborator, working on several manuscripts.

2019 – Katia Canenguez, Ph.D., Ed.M. Instructor in Psychology, Department of  
 Psychiatry, Massachusetts General Hospital

Dr. Canenguez is a child and adolescent clinical psychologist working at my Center one day per week as a co-investigator in a qualitative study investigating patients' attitudes towards receiving palliative care and/or hospice services, and how their religious views may affect willingness to forgo extreme measures at the end of life. Dr. Canenguez is also working as a collaborator within my Study on Stress, Spirituality, and Health, collaborating with investigators from the National Human Genome Research Institute in examining the impact of psychosocial stressors and potential resources for resiliency on risk of cardiovascular disease among South Asians. In addition, she is collaborating on DNA methylation studies that look at how stressors influence disease-related methylation biomarkers, and how resilience measures might buffer the effects of stressors on methylation across diverse communities.

2019 – Jenny Zhen-Duan, Ph.D.

Instructor in Medicine, Harvard Medical School; Researcher, Massachusetts General Hospital

Dr. Zhen-Duan is a psychologist and health disparities researcher collaborating with my Center. She is working within my within my Study on Stress, Spirituality, and Health, with a particular emphasis on studying ways childhood adversities lead to epigenetic changes in racial/ethnic minorities. Dr. Zhen-Duan is also working on obtaining a NIH career development grant (i.e., K08) in which I serve as a co-mentor. Her project aims to examine ways adverse childhood experiences lead to epigenetic changes and alcohol use among Latinx adolescents.

### Local Invited Presentations

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| 2003 | <i>Translating Emerging Genetic Research on Smoking into Clinical Practice</i><br>Institute for Health Policy, Massachusetts General Hospital, Boston, MA                    | Faculty Meeting  |
| 2004 | <i>Genetics, Vulnerable Populations, and Health Disparities: A Proposal for a Reflective Engagement Initiative</i><br>Georgetown University, Washington, DC                  | Board of Directors Meeting (informing development of university-wide initiative on Reflective Engagement in the Public Interest) |
| 2005 | <i>Race, Genetics, and the Goal of Reducing Health Disparities: Pharmacogenetic Applications in Smoking Treatment</i><br>Georgetown University, Washington, DC               | Georgetown University-wide Faculty Seminar on Race and Genetics  |
| 2006 | <i>Genomics, Vulnerable Populations, and Health Disparities</i><br>Broad Institute, Cambridge, MA  | Medical and Populations Genetics Seminar   |
| 2006 | <i>Intersections of Genetics Research and Health Disparities: The Use of Race Variable is Genetics Studies of Complex Traits</i><br>Broad Institute, Cambridge, MA           | Medical and Population Genetics Seminar  |
| 2006 | <i>The Burden of Chronic Illness</i><br>Massachusetts General Hospital, Boston, MA   | MGH Senior Health Research Meeting   |
| 2006 | <i>HIT as a Potential Lever to Reduce Health Disparities</i><br>Harvard University, Cambridge, MA  | Expanded Stakeholder Forum, Harvard Interfaculty Program for Health Systems Improvement  |
| 2006 | <i>Intersection of Genetic Research and Health Disparities: The Use of Race Variables in Genetic Studies of Complex Traits</i><br>Massachusetts General Hospital, Boston, MA | Carolyn Frye Halloran Symposium on Neuro-Oncology  |

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| 2006 | <i>2<sup>nd</sup> Translational Block in Clinical Research: Perspectives of Young Clinical Investigators</i><br>Massachusetts General Hospital, Boston, MA            | MGH Clinical Research Day, Invited Panel Member   |
| 2006 | <i>Anticipating the Challenges in Integrating Pharmacogenetic Approaches of Smoking Treatments to Clinical Practice</i><br>Massachusetts General Hospital, Boston, MA | Tobacco Research and Treatment Center Seminar   |
| 2008 | <i>Lay Understandings of Genetic Information and Implications for the Diffusion of Genomic Medicine</i><br>Broad Institute, Cambridge, MA                             | Medical and Population Genetics Seminar   |
| 2009 | <i>Leveraging Emerging Genomics Research to Improve the Health of Underserved Populations</i><br>Dana-Farber/Harvard Cancer Center, Boston, MA                        | DF/HCC Reduction of Cancer Risk and Disparities Retreat   |
| 2010 | <i>Realizing the Promise of Genomic Medicine for Low Income and Minority Populations</i><br>Harvard Catalyst, Boston, MA  | Translating Emerging Science to Reduce Breast Cancer Disparities Symposium  |
| 2010 | <i>Ethical Dimensions of Genomics Research Practice: Implication for Health Disparities</i><br>Massachusetts General Hospital, Boston, MA                             | Psychiatric Genetics and Translational Research Seminar Series  |
| 2010 | <i>Design of Gene-Environment Interaction Studies: Implications for Distributive Justice</i><br>Harvard Catalyst, Boston, MA  | Research Ethics Working Group, Harvard Catalyst Ethics Program  |
| 2010 | <i>Ethical Dimensions of Genomics Research Practice: Implications for Health Disparities</i><br>Dana-Farber/Harvard Cancer Center, Boston, MA                         | DF/HCC Continuing Umbrella of Research Experiences (CURE) Seminar   |
| 2010 | <i>Realizing the Potential of Genomic Medicine for Minority Patients: Challenges from Bench to Bedside</i><br>Harvard School of Public Health, Boston, MA             | Program in Molecular and Genetic Epidemiology Seminar   |
| 2011 | <i>New Directions in Disparities Research</i><br>Harvard Medical School, Boston, MA   | 2-Day Workshop: “Conceptualizing Gene-Environment Interactions in Obesity Research: Complex Pathways to Health Disparities” |
| 2012 | <i>Developing Transdisciplinary Research Designs to Investigate the Etiology of Health Disparities</i><br>Harvard Medical School, Boston, MA                          | Gene-Environment and Disparities Research Workshop Series   |

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| 2012 | <i>The Complex Interplay of Genetic, Social, and Environmental Factors in Health Disparities</i><br>Harvard University, Cambridge, MA   | Harvard President and Provost's Symposium: "Eliminating Health Disparities: Transdisciplinary Perspectives"   |
| 2013 | <i>God Talk: Investigating the Place of Expertise in Attitudes and Beliefs About the Role of Genetics and Other Factors in Smoking Cessation among African Americans – Implications for Health Disparities</i><br>Harvard University, Cambridge, MA | "Qualitative Social Science at Harvard" Conference: Directions in Knowledge Making from the Harvard Faculty   |
| 2013 | <i>Narratives of Spirituality among Black Smokers: Implications for Health Disparities</i><br>Harvard University, Cambridge, MA   | Harvard W.E.B. Du Boise Institute for African and African American Research Colloquium  |
| 2013 | <i>Challenges Translating PGx Treatment Strategies into Practice: Understanding the Patient Perspective (The Case of Individualized Smoking Cessation Treatment)</i><br>Harvard Medical School, Boston, MA  | 2-day Genomes Environments Traits Educated (GETed) 2013 Conference with George Church   |
| 2013 | <i>Ethical Dimensions of Genomics Research: What's race got to do with it?</i><br>Massachusetts General Hospital, Boston, MA  | Responsible Conduct of "Omics" Research, a 2-day course organized by Jordan Smoller   |
| 2013 | <i>Intersections of Race and Genomics Throughout the Research Trajectory: Implications for Cancer Disparities</i><br>Dana-Farber/Harvard Cancer Center, Boston, MA  | DF/HCC Reduction of Cancer Risk and Disparities Annual Retreat  |
| 2014 | <i>Investigating Racial Disparities in Endometrial Cancer in Risk of Disease and Treatment</i><br>Harvard Medical School, Boston, MA  | 2-day Advances in Endometrial Cancer Epidemiology and Biology Symposium with Immaculata De Vivo, Sara Olson, Karen Lu, and Wendy Setiawan   |
| 2014 | <i>Role of Spirituality in Black Smokers' Nicotine Use</i><br>Dana-Farber/Harvard Cancer Center, Boston, MA   | DF/HCC Brief Updates Series: What's Up in Cancer Risk and Disparities?  |
| 2014 | <i>Preliminary Findings of a Qualitative Study of Principal Investigators of U.S. Cohort Studies</i><br>Harvard Medical School, Boston, MA  | Spirituality & Health Initiative: Advancing Religiosity & Spirituality Research Within U.S. Cohort Studies (Team Meeting presentation with Dr. Tracy Balboni)                           |
| 2014 | <i>Narratives of Spirituality among African American Smokers: Implications for Pharmacotherapy Use</i><br>Harvard Medical School, Boston, MA  | Spirituality, Health, and Health Disparities (1-day symposium sponsored by the Harvard Catalyst and the Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities) |

2016	<i>Ethical Dimensions of Genomics Research Practice: Implications for Health Disparities</i> Dana-Farber/Harvard Cancer Center, Boston, MA	DF/HCC Continuing Umbrella of Research Experiences (CURE) Seminar
2016	<i>Intersections of Genomics and Health Disparities Throughout the Research Trajectory</i> Massachusetts General Hospital, Boston, MA	MGH Clinical and Translational Epidemiology Unit Seminar Series
2016	<i>Overview of our Consortium's Goals, Progress thus far, and Vision for the Future</i> Massachusetts General Hospital, Boston, MA	Annual Meeting of the National Consortium on Psychosocial Stress, Spirituality, and Health
2017	<i>Extending Somatic Mutation Research to the Caribbean</i> Dana-Farber/Harvard Cancer Center, Boston, MA	University of Massachusetts, Boston - DF/HCC Partnership to Reduce Health Disparities
2017	<i>R/S Supplemental Survey Preview: MASALA, BWHS, and NHSII</i> Harvard Medical School, Boston, MA	Annual Meeting of the National Consortium on Psychosocial Stress, Spirituality, and Health
2017	<i>Investigating Epigenetic Signatures of Spirituality – A Potential Mark of Resilience?</i> Harvard Medical School, Boston, MA	Invited Commentator: National Symposium (How Disadvantage Gets “Under the Skin:” Using Epigenomic Methods to Better Understand & Address Health Disparities)
2018	<i>Advancing Disparities-Focused Cancer Genomics Research: Understanding the Role of Somatic Mutations in Prostate Cancer in African-Caribbean Men</i> Dana-Farber/Harvard Cancer Center, Boston, MA	University of Massachusetts, Boston - DF/HCC Partnership to Reduce Health Disparities
2019	<i>The Role of Spirituality in Disease Etiology: Results from the Study on Stress, Spirituality and Health</i> Massachusetts General Hospital, Boston, MA	Keynote Speaker: MGH Psychiatry Grand Rounds, Armand Nicholi Endowed Lecture
2020	<i>Enhancing our Understanding of Breast Cancer Diagnosis and Treatment</i> Dana-Farber/Harvard Cancer Center, Boston, MA	Invited Speaker: Dana-Farber/Harvard Cancer Center Breast Cancer Advocacy Group

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

**Regional**

2001	<i>Genetics and Nicotine Addiction: Clinical Integration and Health Policy Challenges</i> University of Pennsylvania, Philadelphia, PA	Genetics and Nicotine Addiction – Views from Biology to Society Conference
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- 2004 *Anticipating Physician Adoption of a New Genetic Test to Tailor Smoking Treatment: Results from a National Survey of Primary Care Physicians*  
University of Pennsylvania, Philadelphia, PA  
Consortium on Emerging Ethical Issues in Smoking and Genetics National Conference
- 2005 *Intersections of Genetics Research and Health Disparities: The Use of Race Variables in Genetics Studies of Complex Traits*  
Johns Hopkins University, Baltimore, MD  
Greenwall Seminar Series on Genomics and Health Disparities
- 2005 *Anticipating the Challenges in Integrating Pharmacogenetic Approaches of Smoking Treatments to Clinical Practice*  
University of Pennsylvania, Philadelphia, PA  
UPENN "Cells to Society" Series (translating genetic research into policy)
- 2007 *Race, Genetics, and Health Disparities: Framing Research Questions*  
Boston College, Newton, MA  
Health and Science Education Disparities Course (BI224, David Burgess)
- 2014 *Will Genomic Medicine Increase Health Disparities? The Case of Individualized Smoking Cessation Treatment*  
Boston University, Boston, MA  
Invited Presentation
- 2015 *African Americans Rate "Having God's Help" as the Single Most Important Factor Affecting a Person's Ability to Quit Smoking: Results from a National Survey*  
Cambridge, MA  
4th Annual Conference on Medicine and Religion (Paper Presentation)

## National

- 1993 – 1996 *Using Public Data to Benchmark Regional Quality Improvement Efforts*  
Massachusetts Rate Setting Commission, Boston, MA  
Paid Consultant: Massachusetts Rate Setting Commissioner, Massachusetts Rate Setting Commission
- 1994 *Asthma Hospitalizations in Massachusetts*  
American Public Health Association, San Francisco, CA  
Poster Presentation: Annual Meeting
- 1995 *The Combined Impact of Reduced Spending for Medicare, Medicaid, and Employer-Sponsored Health Insurance*  
Council of the Economic Impact of Health System Change, Washington, DC  
Invited Speaker: National Policy Conference

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| 1995 | <i>Anticipating the Number of Uninsured Americans and the Demand for Uncompensated Care: The Combined Impact of Proposed Medicaid Reductions and the Erosion of Employer-Sponsored Insurance</i><br>Council of the Economic Impact of Health System Change, Washington, DC | Invited Speaker: National Policy Conference   |
| 1998 | <i>Understanding the Role and Future Viability of Safety Net Providers: Data Resources and Information Gaps</i><br>Institute of Medicine, Washington, DC   | Paid Consultant: IOM Study Panel on America's Health Care Safety Net                          |
| 1998 | <i>Developing Measures of Provider Performance within Medicaid Managed Care</i><br>New England Research Institutes, Watertown, MA  | Paid Consultant: National Quality Measurement Project<br>New England Research Institutes      |
| 1999 | <i>The Process of Asthma Care for Children Enrolled in the Massachusetts Medicaid Program</i><br>Association for Health Services Research, Chicago, IL   | Presentation: Annual meeting  |
| 1999 | <i>Forces Affecting Safety Net Providers</i><br>Institute of Medicine, Washington, DC  | Paid Consultant: IOM Study Panel on America's Health Care Safety Net<br>Institute of Medicine |
| 1999 | <i>The Changing Market, Managed Care and the Future Viability of Safety Net Providers</i><br>American Public Health Association, Chicago, IL   | Presentation: Annual meeting  |
| 1999 | <i>The Future Viability of Safety Net Providers</i><br>National Association of Community Health Centers, Miami, FL   | Presentation: Annual meeting  |
| 2000 | <i>Performance of CHCs and Other Medicaid Providers in Caring for Children with Asthma</i><br>Health Resources and Services Administration, Bethesda, MD   | Invited Seminar Presentation  |
| 2000 | <i>Challenges in Studying the Health Care Safety Net: Lessons from the IOM Study</i><br>American Public Health Association, Boston, MA   | Presentation: Annual meeting  |
| 2002 | <i>Monitoring the Quality of Asthma Care Provided to Medicaid-Enrolled Children: Claims-Based Strategies</i><br>Robert Wood Johnson Foundation, Dallas, TX   | Presentation: National Program Workshop   |



- 2002 *A Commitment to Caring: The Role of Catholic Hospitals in the Health Care Safety Net*  
Catholic Health Association, Washington, DC  
Keynote Address: Annual meeting
- 2002 *Tailoring Smoking Cessation Treatment by Genotype: Implications for Ethics and Clinical Practice*  
Robert Wood Johnson Foundation, Chicago, IL  
Presentation: National Program Workshop
- 2002 *Racial and Ethnic Disparities in Asthma Care Provided to Medicaid-Enrolled Children with Asthma*  
American Public Health Association,  
Philadelphia, PA  
Presentation: 130<sup>th</sup> Annual Meeting
- 2003 *Factors Associated with Adoption of a New Genetic Test to Tailor Smoking Treatment: Results from a National Survey of Primary Care Physicians*  
Academy Health, Nashville, TN  
Poster Presentation: Annual Meeting
- 2003 *Tailoring Smoking Cessation Treatment by Genotype: Implications for Ethics and Clinical Practice*  
The Center for the Advancement of Genomics,  
Rockville, MD  
Invited Presentation: Craig Venter's Research Group
- 2003 *Emerging Research on the Genetics of Smoking: The Problematic Intersection of Race and Addiction*  
Society for the Social Studies of Science,  
Atlanta, GA  
Presentation: Annual Meeting
- 2004 *Anticipating Clinical Integration of Genetically Tailored Tobacco Dependence Treatment: Perspectives of Primary Care Physicians*  
Society for Research on Nicotine and Tobacco,  
Scottsdale, AZ  
Presentation: Annual Meeting
- 2004 *Stratification, Justice, and Opportunity: Challenges in Translating Emerging Genomics Research into Improved Health and Reduced Disparities*  
Institute of Medicine, Washington, DC  
Keynote Address: Genomics and the Public's Health in the 21<sup>st</sup> Century Conference (IOM)
- 2005 *Genetics, Vulnerable Populations, and Health Disparities*  
University of Washington, Seattle, WA  
Opening Conference Presentation: Center for Genomics and Healthcare Equality

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| 2005 | <i>Genetics, Neurobiology, and Addiction: Where are the Answers?</i><br>Stanford University, Palo Alto, CA  | Invited Symposium Speaker: Center for Integration of Research on Genetics and Ethics in the Stanford Center for Biomedical Ethics       |
| 2005 | <i>Challenges in Translating Emerging Genomics Research into Improved Public Health and Reduced Health Disparities</i><br>Centers for Disease Control and Prevention, Atlanta, GA         | Invited Presentation: 19 <sup>th</sup> National Conference on Chronic Disease Prevention Control  |
| 2005 | <i>Trends in Private Insurance, Medicaid/SCHIP, and the Health Care Safety Net: Implications for Asthma Disparities</i><br>Northwestern University, Chicago, IL                           | Invited Presentation: National Workshop on Asthma Disparities   |
| 2005 | <i>Genetics Research on Addiction: Current Research Practices and the Potential to Reduce Health Disparities</i><br>American Psychological Association, Washington, DC                    | Invited Presentation: Special Emphasis Panel on “Genes, Race, and Psychology in the Genome Era: Research Implication for Psychologists” |
| 2005 | <i>Testing Justice: Framing the Normative Issues of Genetic Medicine for the Underserved</i><br>American Society for Bioethics & Humanities, Washington, DC                               | Invited Presentation: Annual conference   |
| 2006 | <i>Monitoring the Impact of Differential Diffusion of HIT on Disparities and Vulnerable Populations</i><br>The National HIT Adoption Initiative, Washington, DC                           | Invited Presentation: Expert Consensus Panel  |
| 2008 | <i>Challenges Translating Emerging Pharmacogenetic Treatment Strategies for Addiction into Clinical Practice</i><br>National Institute on Drug Abuse, Washington, DC                      | Congressional Briefing with NIDA Director Nora Valkow   |
| 2008 | Will Genomic Medicine Exacerbate Health Disparities?: Investigating Utilization of Genetic Tests among Underserved Populations<br>National Human Genome Research Institute, Cleveland, OH | Invited Presentation: Ethical, Legal, and Social Implications Program National Conference (NHGRI)                                       |
| 2008 | <i>Disparities in Access to Genomic Medicine: Existing Data and Challenges for the Future</i><br>Institute of Medicine, Washington, DC  | Keynote Speaker: IOM Roundtable “Translating Genomic-Based Research for Health” (National Workshop on Personalized Medicine)            |

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| 2008 | <i>Lost in Translation? Ensuring that New Genetics Research on Addiction gets Translated into Improved Health Outcomes</i><br>National Institute on Drug Abuse, Washington, DC           | Invited Speaker: NIDA Congressional Briefing  |
| 2008 | <i>The Use of Race Variables in Genomics Research: A Social Science Perspective</i><br>National Institutes of Health, Adelphi, MD  | Invited Speaker: NIH national workshop: "Understanding the Role of Genetics in Health Disparities: Toward a New Research Agenda"  |
| 2010 | <i>Conceptualizing the "Environment" in GEI Research: Implications for Underserved Communities</i><br>University of Washington, Seattle, WA  | Invited Speaker: Center for Genomics and Healthcare Equality  |
| 2010 | <i>Genomic Medicine: Implications for the Future of Health Disparities Research</i><br>National Institutes of Health, Bethesda, MD   | Invited Faculty: National Center on Minority Health and Health Disparities' inaugural 2-week "Translational Health Disparities Course: Integrating Principles of Science, Practice and Policy in Health Disparities Research" |
| 2010 | <i>Access to Genomic Medicine: Implications for Health Disparities</i><br>University of Pennsylvania, Philadelphia, PA   | Invited Speaker: UPenn Center for the Integration of Genetic Healthcare Technologies' Third Annual Symposium: "Toward the \$1000 Genome"  |
| 2011 | <i>Genomic Medicine: Implications for the Future of Health Disparities Research</i><br>National Institutes of Health, Bethesda, MD   | Invited Faculty: National Institute on Minority Health and Health Disparities' "Translational Health Disparities Course: Integrating Principles of Science, Practice, and Policy in Health Disparities Research"              |
| 2012 | <i>New Directions in Disparities Research Understanding the Role of Biological, Social, and Environmental Factors in Risk of Complex Disease</i><br>Rockefeller University, New York, NY | Invited Faculty: Seminar in Clinical Research, Rockefeller University   |
| 2013 | <i>Intersections of Race and Genomics from Research to Practice: Implications for Health Disparities in the U.S.</i><br>National Institutes of Health, Bethesda, MD                      | Invited Faculty: National Human Genome Research Institute's Human Genome 10th Anniversary Celebration   |
| 2013 | <i>Intersections of Race and Genomics from Research to Practice: Implications for Health Disparities</i><br>National Institutes of Health, Bethesda, MD                                  | Invited Faculty: National Institute on Minority Health and Health Disparities' "Translational Health Disparities Course: Integrating Principles of Science, Practice, and Policy in Health Disparities Research"              |

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| 2014 | <i>Designing Gene-Environment Studies to Inform Efforts to Reduce Disparities</i><br>University of Michigan, Detroit, MI   | Invited Faculty: Center for Integrative Approaches to Health Disparities – Jackson Heart Study (CIAHD-JHS) Junior Investigator Symposium                            |
| 2015 | <i>Opportunities to Improve Public Health &amp; Reduce Health Disparities Through Genomic</i><br>National Academies of Science,<br>Washington, DC  | Invited Speaker: Action Collaborative on Genomics and Public Health (CDC)   |
| 2015 | <i>Accelerating Implementation Science: A Health Disparities Perspective</i><br>Centers for Disease Control, Washington, DC  | Invited Speaker: Institute of Medicine’s Roundtable on Translating Genomic-based Research for Health  |
| 2016 | <i>Disparities Research in the Age of Genomics: Ethical Issues from Meaningful Community Engagement to Equitable Access to Novel Therapeutics</i><br>Delaware CTR ACCEL (Accelerating Clinical and Translational Research), Wilmington, DE | Invited Speaker: Precision Medicine in Delaware Conference  |
| 2017 | <i>Building Capacity to Adequately Measure the Influence of Religion and Spirituality on Health: Build it and They Will Come?</i><br>Houston, TX   | Invited Speaker: Annual Conference on Medicine and Religion   |
| 2017 | <i>Epigenetic Marks Associated with Psychosocial Stress: Envisioning New Tools for Prevention and Health Promotion</i><br>National Institutes of Health, Bethesda, MD  | Invited Speaker: Session on new directions in research: NIH/NIDDK Invited Workshop on Enhancing Opportunities in Addressing Obesity and Type 2 Diabetes Disparities |
| 2017 | <i>Envisaging Health Equity in the Age of Genomics</i><br>Weill Cornell Medical School, New York, NY   | Invited Speaker   |
| 2018 | <i>Building Research Infrastructure to Advance Research on Spirituality and Health: The National Consortium on Stress, Spirituality, and Health</i><br>St. Louis, MO   | Invited Speaker: Annual Conference on Medicine and Religion   |
| 2018 | <i>Investigating Race, Ethnicity, and Ancestry in Clinical Genomics</i><br>San Diego, CA   | Poster Presentation: American Society of Human Genetics 2018 Conference.  |

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| 2019 | <i>Epigenetic Signals of How Social Disadvantage "Gets Under the Skin": A Challenge to the Public Health Community</i><br>University of North Texas Health Science Center, Fort Worth, TX       | Keynote Speaker: Annual Texas Conference on Health Disparities: Social Epigenomics and Health Disparities.         |
| 2019 | <i>Mental Health and Self-Rated Health among South Asians in the United States; The Role of Religious Involvement in the MASALA Study</i><br>St. Louis, MO                                      | Presentation: Society for the Scientific Study of Religion   |
| 2020 | <i>The Role of Psychosocial Stress in Producing Breast Cancer Disparities</i><br>Washington, DC   | Plenary Speaker [virtual]: 2020 Advocate Leadership Summit, National Breast Cancer Coalition                       |
| 2020 | <i>Advancing Disparities-Focused Cancer Genomics Research: Understanding the Role of Psychosocial Stress and Religiosity/Spirituality</i><br>Oregon Health and Science University, Portland, OR | Guest Speaker [virtual]: Cancer Early Detection Advanced Research (CEDAR) Center Health Disparities Seminar Series |
| 2020 | <i>Developing New Paradigms for Health Disparities Research: Connecting Social, Behavioral, Environmental and Genomic Science</i><br>National Institutes of Health, Bethesda, MD                | Guest Speaker [virtual]: NIMHD Health Disparities Research Institute   |
| 2020 | Integrative Biological and Behavioral Research (IBBS) Panel Discussion<br>National Institutes of Health, Bethesda, MD   | Presentation [virtual]: NIMHD Health Disparities Research Institute  |

## International

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| 2005 | <i>Challenges to Tobacco Control in the Community: Race, Genetics, Health Professionals and Health Policy</i><br>International Society for the Prevention of Tobacco Induced Diseases, Athens, Greece | Invited Presentation: 4 <sup>th</sup> Annual Conference               |
| 2008 | <i>GEI Research and the Challenge of Addressing Disparities in Lung Disease</i><br>American Thoracic Society, Toronto, Ontario  | Invited Presentation: Annual Conference                               |
| 2013 | <i>What's Race Got to Do with It? Intersections of Race and Genomics from Research to Practice</i><br>University of Cape Town, South Africa   | Invited "Darwin Lecture," sponsored by the Division of Human Genetics |

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| <p>2016 <i>Investigating the Role of Psychosocial Stress in Disease Etiology &amp; The Potential Buffering Effect of Spirituality</i><br/>Behavioral Sciences Research Institute,<br/>University of Puerto Rico</p> | <p>Invited Speaker</p>  |
| <p>2016 <i>Envisioning the Jamaica Cancer Research Institute (JACCRI)</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>  | <p>Invited Speaker: Inaugural conference of the Jamaica Cancer Care and Research Institute (JACCRI) – “Emerging Issues in Cancer Care &amp; Research: Translational Challenges in the Jamaican Context”</p>       |
| <p>2016 <i>Spirituality - A Key Construct in Understanding Racial Differences in End of Life Care?</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>   | <p>Invited Speaker: Inaugural conference of the Jamaica Cancer Care and Research Institute (JACCRI) – “Emerging Issues in Cancer Care &amp; Research: Translational Challenges in the Jamaican Context”</p>       |
| <p>2016 <i>The Under-Representation of African Ancestry Patients in Somatic Mutation Research: Implications for Cancer Disparities</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>             | <p>Invited Speaker: Inaugural conference of the Jamaica Cancer Care and Research Institute (JACCRI) – “Emerging Issues in Cancer Care &amp; Research: Translational Challenges in the Jamaican Context”</p>       |
| <p>2017 <i>The Evidence Base for Spirituality as a Core Competency in Palliative Care Medicine</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>   | <p>Organizer &amp; Speaker: Week-long Palliative Care Training Course provided by The Jamaica Cancer Care and Research Institute (JACCRI), a non-profit of which Dr. Shields is one of three founding members</p> |
| <p>2017 <i>Adapting the Spiritual Assessment to the Jamaican Context</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>   | <p>Organizer &amp; Speaker: Week-long Palliative Care Training Course provided by The Jamaica Cancer Care and Research Institute (JACCRI)</p>   |
| <p>2017 <i>Taking a Spiritual History</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>  | <p>Organizer &amp; Speaker: Week-long Palliative Care Training Course provided by The Jamaica Cancer Care and Research Institute (JACCRI)</p>   |
| <p>2017 <i>Identifying Palliative Care Needs among Islands other than Jamaica</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>  | <p>Organizer &amp; Speaker: Week-long Palliative Care Training Course provided by The Jamaica Cancer Care and Research Institute (JACCRI)</p>   |
| <p>2017 <i>Tools for Assessing Spirituality</i><br/>The University of the West Indies, Kingston,<br/>Jamaica</p>  | <p>Organizer &amp; Speaker: Week-long Palliative Care Training Course provided by The Jamaica Cancer Care and Research Institute (JACCRI)</p>   |

2019 *Why is Spirituality a Central Concern for Health and Palliative Care? Early findings from the Study on Stress, Spirituality, and Health*  
Princess Margaret Cancer Center, Toronto, ON, Canada

Invited Speaker: Supportive Care Research Seminar

## **Report of Scholarship**

### **Publications**

#### **Peer-Reviewed Publications in Print or Other Media**

#### **Research Investigations**

1. **Shields A.E.**, Finkelstein J., Comstock C., Weiss K.B. Process of care for Medicaid-enrolled children with asthma served by community health centers and other providers. *Medical Care*. 2002; 40(4): 303-314. PMID: 12021686.
2. Wilfond B.S., Geller G., Lerman C., Audrain-McGovern J., **Shields A.E.** Ethical issues in conducting behavioral genetics research: the case of smoking prevention trials among adolescents. *Journal of Health Care, Law & Policy*. 2002; 6(1):73-88. PMID: 15017952.
3. Unger J.B., Cruz T., Shakib S., Mock J., **Shields A.E.**, Baezconde-Garbanati L., Palmer P., Cruz J.D., Edsall E.W., Gritz E.R., Glynn T., Johnson C.A. Exploring the cultural context of tobacco use: a transdisciplinary framework. *Nicotine and Tobacco Research*. 2003; 5(Suppl 1):S101-S117.
4. **Shields A.E.**, Comstock C., Finkelstein J.A., Weiss K.B. Comparing asthma care provided to Medicaid-enrolled children in a primary care case manager plan and a staff model HMO. *Ambulatory Pediatrics*. 2003; 3(5):253-262. PMID: 12974661.
5. Baker T.B., Hatsukami D.K., Lerman C., O'Malley S.S., **Shields A.E.**, Fiore M.C. Transdisciplinary science applied to the evaluation of treatments for tobacco use. *Nicotine and Tobacco Research*. 2003; 5(Suppl 1):589-599. PMID: 14668089.
6. Audrain-McGovern J., Tercyak K., **Shields A.E.**, Bush A., Espinel C.F., Lerman C. Which adolescents are most receptive to tobacco industry marketing? Implications for counter-advertising campaigns. *Health Communication*. 2003; 15(4):499-513. PMID: 14527869.
7. **Shields A.E.**, Comstock C., Weiss K.B. Variations in asthma care by race/ethnicity among children enrolled in a state Medicaid program. *Pediatrics*. 2004; 113(3): 496-504. PMID: 14993540.
8. **Shields A.E.**, Lerman C., Sullivan P. Translating emerging research on the genetics of smoking into clinical practice: ethical and social considerations. *Nicotine and Tobacco Research*. 2004; 6(4): 675-688.
9. **Shields A.E.**, Blumenthal D., Weiss K.B., Comstock C.B., Currivan D., Lerman C. Barriers to translating emerging genetic research on smoking into clinical practice: perspectives of primary care physicians. *Journal of General Internal Medicine*. 2005; 20(2):131-138. PMID: 15836545.

10. **Shields A.E.**, Fortun M., Hammonds E., King P.A., Lerman C., Rapp R., Sullivan P.F. The use of race variables in genetic studies of complex traits and the goal of reducing health disparities: A transdisciplinary perspective. *American Psychologist*. 2005; 6(1):77-103. PMID: 15641924.
11. Jha A., Ferris T.G., Donelan K., DesRoches C., **Shields A.E.**, Rosenbaum S., Blumenthal D. How common are electronic health records in the United States? A summary of the evidence. *Health Affairs*. 2006; 25(6):w496-w507.
12. Schnoll R.A., Rukstalis M., Wileyto P., **Shields A.E.** Smoking cessation treatment by primary care physicians: An update and call for training. *American Journal of Preventive Medicine*. 2006; Sep; 31(3):233-9. PMID: 16905034.
13. Park E., Kleimann S., Pelan J., **Shields A.E.** Anticipating clinical integration of genetically-tailored tobacco dependence treatment: Perspectives of primary care physicians. *Nicotine and Tobacco Research*. 2007; 9(2) 271-279. PMID: 17365758.
14. **Shields A.E.**, Shin P., Leu M., Levy D.E., Betancourt, R.M., Hawkins, D. and Proser, M. Adoption of Health Information Technology in Community Health Centers: Results of a national survey. *Health Affairs*. 2007; 26(5):1373-1383. PMID: 17848448.
15. Braun L., Fausto-Sterling A., Fullwiley D., Hammonds E.M., Nelson A., Quivers W., Reverby S.M., **Shields, A.E.** Racial categories in medical practice: How useful are they? *Public Library of Science Medicine*. 2007; 4(9) e271. PMID: 17896853.
16. **Shields A.E.** Trends in private insurance, Medicaid/SCHIP, and the health care safety net: Implications for asthma disparities. *Chest*; 2007. 132:818S-830S. PMID: 17998346.
17. Vogeli C., **Shields A.E.**, Lee T.A., Gibson T.B., Marder W.D., Weiss K.B., Blumenthal D. Multiple chronic conditions: Prevalence, health consequences and implications for quality, care management and costs. *Journal of General Internal Medicine*. 2007; 22 Suppl 3:391-395. PMID: 18026807.
18. Lee T., **Shields A.E.**, Vogeli C., Gibson T., Woong-Sohn M., Marder W.D., Blumenthal D., Weiss, K.B. Mortality rates in veterans with multiple chronic conditions. *Journal of General Internal Medicine*. 2007; 22 Suppl 3:403-407. PMID: 18026809.
19. Levy D.E., Youatt E.J., **Shields A.E.** Primary Care Physicians' Concerns about Offering a Genetic Test to Tailor Smoking Cessation Treatment. *Genetics in Medicine*. 2007; 9(12):842-849. PMID: 18091434.
20. Phillips J., Siegel S.J., **Shields A.E.**, Patterson F., Gould T.J., Strasser A.A., Ray R., Pinto A., Audrain-McGovern J., Rukstalis M., Perkins K.A., Blendy J.A., Lerman C. Translating Basic Science to Improve Pharmacotherapy for Nicotine Dependence. *Nicotine and Tobacco Research*. 2007; 9 Suppl 4:S583-S598. PMID: 18067034.
21. **Shields A.E.**, McGinn-Shapiro M., Fronstin P. Trends in private insurance, Medicaid/State Children's Health Insurance Program, and the health safety net: Implications for vulnerable populations and health disparities. *Annals of the New York Academy of Sciences*. 2008; 1136: 137-48. PMID: 18579880.



22. **Shields A.E.**, Lerman C. Anticipating clinical integration of pharmacogenetic treatment strategies for addiction: are primary care physicians ready? *Clinical Pharmacology Therapeutics*. 2008; Apr; 83(4):635-9. PMID: 18323859.
23. **Shields A.E.**, Burke W., Levy D.E. Differential use of available genetic tests among primary care physicians in the United States: Results of a national survey. *Genetics in Medicine*. 2008; Jun; 10(6): 404-414. PMID: 18496223. PMCID: PMC2764316.
24. **Shields A.E.**, Levy D.E., Blumenthal D., Currivan D., McGinn-Shapiro M., Weiss K.B., Yucel R., Lerman C. Primary Care Physicians' Willingness to Offer a New Genetic Test to Tailor Smoking Treatment, According to Test Characteristics. *Nicotine and Tobacco Research*. 2008; Jun; 10(6):1037-1045. PMID: 18584467. PMCID: PMC3814125.
25. DesRoches C., Campbell E.G., Rao S., Jha A.K., Donelan K., Ferris T., Levy D.E., Kaushal R., Rosenbaum S., **Shields A.E.**, Blumenthal D. Electronic health records in ambulatory care – a national survey of physicians. *New England Journal of Medicine*. 2008; Jul; 359(1): 50-60. PMID: 18565855.
26. Wright R.J., Suglia S.K., Levy J.I., Fortun K., **Shields A.E.**, Subramanian, S.V., Wright, R.O. Transdisciplinary research strategies for understanding socially patterned disease: the Asthma Coalition on Community, Environment, and Social Stress (ACCESS) project as a case study. *Cien Saude Colet*. 2008; Nov-Dec; 13(6): 1729-42. PMID: 18833350. PMCID: PMC2628980.
27. Gibson T.B., Lee T.A., Vogeli C., Hidalgo J., Carls G.S., Sredl K., DesHarnais S., Marder W.D., Weiss K.B., Williams T.V., **Shields A.E.** A four-system comparison of patients with chronic illness: the Military Health System, Veterans Health Administration, Medicaid, and commercial plans. *Military Medicine*. 2009; 174(9): 936-943. PMID: 19780368.
28. Jha A.K., DesRoches C.M., Campbell E.G., Donelan K., Rao S.R., Ferris T.G., **Shields A.E.**, Rosenbaum S., Blumenthal D. Use of Electronic Health Records in U.S. Hospitals. *The New England Journal of Medicine*. 2009; Apr 16; 360(16): 1628-38. PMID: 19321858.
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43. LeBaron V.T., Smith P.T., Quinones R., Nibecker C., Sanders J.J., Timms R.M., **Shields A.E.**, Balboni T.A., Balboni M.J. How Community Clergy Provide Spiritual Care: Toward a Conceptual Framework for Clergy End of Life Education. *Journal of Pain and Symptom Management*. 2016, Apr;51(4): 673-681. PMID: 26706624.
44. Williams D.R., Mohammed S.A., **Shields A.E.** Understanding and Effectively Addressing Breast Cancer in African American Women: Unpacking the Social Context. *Cancer*. 2016; 122(14):2138-49. PMID: 26930024.
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55. Stroope S., Kent B.V., Zhang Y., Spiegelman D., Kandula N., Schachter A.B., Kanaya A.M., **Shields A.E.** Mental Health and Self-Rated Health among U.S. South Asians: The Role of Religious Group Involvement. *Ethnicity & Health*. 2019 Aug 30:1-19. PMID: 31466458.
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63. Lock M., Argentieri M.A., **Shields A.E.** The contribution of ethnography to epigenomics research: Toward a new bio-ethnography for addressing health disparities. *Epigenomics*. 2020 (In Press).
64. Warner E.T., Zhang Y., Gu Y., Taporoski T.P., Pereira A., De Vivo I., Spence N.D., Cozier Y., Palmer J.R., Kanaya A.M., Kandula N.R., Cole S.A., Tworoger S., **Shields A.E.** Physical and sexual abuse in childhood and adolescence and leukocyte telomere length: A pooled analysis of the study on psychosocial stress, spirituality, and health. *PLOS One*. 2020 (In Press).
65. Kent B.V., Davidson J.C., Zhang Y., Pargament K.I., VanderWeele T.J., Koenig H.G., Underwood L.G., Krause N., Kanaya A.M., Tworoger S.S., Schachter A.B., Cole S., O'Leary M., Cozier Y., Daviglius M., Zacher T., **Shields A.E.** Baseline results from the Study on Stress, Spirituality, and Health: religious and spiritual beliefs and practices among American Indian, Black, Hispanic/Latina, South Asian, and White Women in the U.S. *Journal for the Scientific Study of Religion*. 2020 (In Press).
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3. Lerman C., **Shields A.E.** Genetic testing for cancer susceptibility: the promise and the pitfalls. *Nature Reviews Cancer*. 2004; 4:235-241. PMID: 14993905.
4. Munafo M.R., Lerman C., Niaura R., **Shields A.E.**, Swan G.E. Smoking cessation treatment: Pharmacogenetic assessment. *Current Opinion in Molecular Therapeutics*. 2005; 7:202-208. PMID: 15977416.
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### Non-Peer-Reviewed Scientific or Medical Publications/Materials in Print or Other Media

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5. Lerman C., **Shields A.E.**, Munafo M. Pharmacogenetic Approaches to the Treatment of Nicotine Dependence. In: George T.P. (Ed). *Medication Treatments for Nicotine Dependence*. Boca Raton, FL: CRC Press; 2007:263-274.
6. **Shields A.E.**, Rao S.R., Kwong R.M. Are Physicians Serving Poor and Minority Patients Keeping Pace with EHR Adoption? In: Blumenthal D., DesRoches C., Foubister V. (Eds). *Health Information Technology in the United States: Where We Stand 2008*. Princeton, NJ: Robert Wood Johnson Foundation; 2008:25-55.
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10. **Shields A.E.**, Fullerton S.M., Olden K. Genes, Environment, and Cancer Disparities. In: Koh, H.K. (Ed). *Toward the Elimination of Cancer Health Disparities: Clinical and Public Health Perspectives*. New York, NY: Springer; 2009:49-82.
11. **Shields A.E.**, Haga S. Pharmacogenomics. In: Eckenwiler, L., Kaebnick, G., Koenig, B., Krinsky, S., Latham, S., Mercurio, M. (Eds). *Encyclopedia of Bioethics, 4<sup>th</sup> edition*. Farmington Hills, MI: Gale, Cengage Learning; 2014.

### **Books/Textbooks for the Medical or Scientific Community**

1. Altman S.H., Reinhardt U.E., **Shields A.E.**, eds. *The Future U.S. Health Care System: Who will Care for the Poor and Uninsured?* Chicago, IL: Health Administration Press; 1998.

### **Thesis**

1. **Shields A.E.** Medicaid managed care and plan performance: The case of pediatric asthma [dissertation]. Waltham, MA: Brandeis University; 1998.