

BIOGRAPHICAL SKETCH

NAME Mate, Kedar S, MD	TITLE Chief Innovation & Education Officer, Institute for Healthcare Improvement Assistant Professor of Medicine, Weill Cornell Medical College, New York, NY Research Associate, Harvard Medical School, Boston, MA		
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Brown University, Providence, RI	BA	12/99	American History
Harvard Medical School, Boston, MA	MD	06/05	Medicine
Brigham and Women's Hospital, Boston, MA	Internship	06/06	Internal Medicine
Brigham and Women's Hospital, Boston, MA	Residency	06/08	Internal Medicine

A. Personal Statement

Kedar S. Mate, MD, Chief Innovation and Education Officer, Institute for Healthcare Improvement (IHI), is responsible for research & development, innovation, and education. He leads IHI's work in these areas to ensure innovative new system designs flow from discovery to delivery at scale. Dr. Mate oversees IHI's research program focused on developing and scaling models for implementing high-quality, low-cost care both in the US and in international settings. His work with health care administration and leadership of IHI's strategic partners has helped organizations to design and operationalize system-wide improvements across a range of clinical topics. An internal medicine physician, Dr. Mate is also Faculty in the Department of Medicine at Weill-Cornell Medical College. His current research portfolio includes principal investigator roles on a number of studies and implementation awards focused on optimizing learning systems to spread evidence-based practices, improving health equity, and developing systems that address the needs of complex patients. Previously he worked with Partners In Health, served as a special assistant to the Director of the HIV/AIDS Department at the World Health Organization, and led IHI's national program in South Africa. Dr. Mate has published numerous peer-reviewed articles, book chapters and white papers and has received various honors including the Paul & Daisy Soros Fellowship, the Howard Hiatt Fellowship, Fulbright Specialist, and the Aspen Institute's Health Innovators Fellowship. He graduated from Brown University with a degree in American History and from Harvard Medical School with a medical degree.

B. Positions and Honors

Positions and Employment

2000-2001	Instructor, Program in Infectious Disease and Social Change, Harvard Medical School, Cambridge, Massachusetts
2000-2001	Director, Institute for Health and Social Justice, Department of Social Medicine, Harvard Medical School
2000-2001	Research Assistant, Program in Infectious Disease and Social Change, Harvard Medical School
2005-2008	Clinical Fellow in Medicine, Brigham and Women's Hospital
2005-2008	Clinical Instructor in Medicine, Brigham and Women's Hospital
2001-2003	Research Assistant, Prevention and Access to Care and Treatment, Brigham and Women's Hospital
2003-2004	HIV Department Technical Officer, Director General's Office, World Health Organization
2005	HIV Policy Specialist, Southeast Asia Region, World Health Organization
2006-2008	Case Analyst, Best Doctors Medical Consultant, Boston, MA
2007-2014	Board Member, 5P Charitable Foundation, Richmond, Virginia & New Delhi, India
2008-2014	Vice President, Institute for Healthcare Improvement
2008-2012	Research Associate in Medicine, Division of Global Health Equity, Brigham and Women's Hospital
2009-present	Attending Physician, New York Hospital, New York, NY

2009-present	Assistant Professor of Medicine, Weill Cornell Medical College, New York, NY
2010-2012	Honorary Lecturer, University of KwaZulu Natal, Durban, South Africa
2011-2013	Board Member, Collaborative for Elimination of TB from Indore (CETI), Indore, India
2014-2016	Senior Vice President for Innovation & Research, Institute for Healthcare Improvement
2013-2016	Board Member, Lebanese Society for Quality & Safety in Healthcare, Beirut, Lebanon
2013-2016	Board Member, The Billions Institute, Cambridge, MA US
2014-2016	Advisory Board Member, Der Norske Veritas Global Health System, Oslo, Norway
2016-present	Chief Innovation & Education Officer, Institute for Healthcare Improvement
2017-2019	Advisory Board Member, Institute for Accountable Care, Washington DC
2017-2019	Advisory Board Member, Shared Nation, Cambridge, MA
2017	Member, Robert Wood Johnson & Mount Sinai Task Force on Global Advantage
2017-2019	Advisory Board Member, Kaleidoscope Network, UK National Health Service
2017-present	Advisory Board Member, National Center for Complex Care, Camden, NJ
2018-2019	Study Committee Member, National Academy of Sciences, Engineering and Medicine. Committee on Social Care integration into the delivery of Health care in the US.
2019-present	Board of Directors, HIVE Networks, Cincinnati, OH
2019	Advisory Committee Member-Committee on Special Supplemental Benefits for Chronic Illness, Bipartisan Policy Commission, Washington, DC
2019-2021	Advisory Committee Member, AIM Program, Center for Health Care Strategies
2019-2022	Health Sciences Advisory Board, University of the People, New York, NY
2020-	President & CEO, Institute for Healthcare Improvement, effective July 1 st , 2020.

Other Experience and Professional Memberships

2005-2006	Member, Intern Selection Committee, HMS / HSDM, Brigham and Women's Hospital
2007-2008	Member, Journal Club Committee, Brigham and Women's Hospital, Affiliated Inst.
2005-2008	Member, Massachusetts Medical Society
2009-2014	Member, Readmissions Task Force, New York Presbyterian Hospital, Affiliated Inst.
2010-2011	Member, Department of Medicine Strategic Planning Task Force, New York
2012-2018	Member, American College of Physicians

Honors

2003	Paul and Daisy Soros Fellowship for New Americans, Harvard Medical School
2003	Academy of Achievement Scholar, Academy of Achievement
2005	Howard Hiatt Global Health Equity Fellow, Brigham and Women's Hospital
2007	Tufts School of Medicine Excellence in Teaching, Tufts U. School of Medicine
2009	John A. Phillips Memorial Award
2012	Salzburg Global Fellow
2017	Aspen Institute Health Innovators Fellow
2017	Aspen Institute Global Leaders Network
2019	Fulbright Specialist Scholar

Editorial Boards

2014-present	Editorial Board, Joint Commission Journal for Quality and Patient Safety
2016	Health Affairs, Special Issue on Delivery System Innovation
2017	Health Affairs, Special Issue on Dissemination of Innovation
2019	Journal of General Internal Medicine, QI/Implementation Science Advisory Group
2019-present	Editorial Board, Journal of Clinical Outcomes Management

C. Selected Publications

Peer Reviewed Publications

1. Basu S, Mate K, Farmer PE. Debt and Poverty turn a disease into an epidemic. *Nature*. 2000;(407):13-14.
2. Brown H, Vallabhaneni S, Solomon S, Mothi S, McGarvey S, Jackson T, Putcha M, Brenner S, Mate K, Cu-Uvin S. Attitudes towards prenatal HIV testing and treatment among pregnant women in southern India. *Int J STD AIDS*. 2001;12(6):390-4.
3. Kim JY, Mukherjee JS, Rich ML, Mate K, Bayona J, Becerra MC. From multidrug-resistant tuberculosis to DOTS expansion and beyond: making the most of a paradigm shift. *Tuberculosis (Edinb)*. 2003;83(1-3):59-65.
4. Shin S, Furin J, Bayona J, Mate K, Kim JY, Farmer P. Community-based treatment of multi-drug-resistant tuberculosis in Lima, Peru: 7 years of experience. *Soc Sci Med*. 2004;59(7):1529-39.
5. Yong Kim J, Shakow A, Mate K, Vanderwerker C, Gupta R, Farmer P. Limited good and limited vision: multidrug-resistant tuberculosis and global health policy. *Soc Sci Med*. 2005;61(4):847-59.
6. Mate KS, Bennett B, Mphatswe W, Barker P, Rollins N. Challenges for routine health system data management in a large public programme to prevent mother-to-child HIV transmission in South Africa. *PLoS ONE*. 2009;4(5):e5483.
7. Youngleson MS, Nkurunziza P, Jennings K, Arendse J, Mate KS, Barker PM. Improving a Mother to Child HIV Transmission Programme through Health System Redesign: Quality Improvement, Protocol Adjustment and Resource Addition. *PLoS ONE*. 2010;5(11):e13891.
8. Mate K, Barker P. Using rapid cycle improvement methods in resource-limited settings. *Qual Manag Health Care*. 2011;20(1):2.
9. Schwarz D, Schwarz R, Gauchan B, Andrews J, Sharma R, Karelac G, Rajbhandari R, Acharya B, Mate K, Bista A, Bista MG, Sox C, Smith-Rohrberg Maru D. Implementing a systems-oriented morbidity and mortality conference in remote rural Nepal for quality improvement. *BMJ Qual Saf*. 2011.
10. Svoronos T, Mate KS. Evaluating large-scale health programmes at a district level in resource-limited countries. *Bulletin of the World Health Organization*. 2011;89:831-837.
11. Barker P, Mate KS. Eliminating Mother-To-Child HIV Transmission Will Mainly Require Dramatic Improvements In Maternal And Child Health Services. *Health Aff July 2012; 31(7): 1489-1497*.
12. Maru DS, Andrews J, Schwarz D, Schwarz R, Acharya B, Ramaiya A, Karelac G, Rajbhandari R, Mate KS, Shilpakar A. Crossing the quality chasm in resource-limited settings. *Global Health*. 2012; 8: 41.
13. Mphatswe W, Mate KS, Bennett B, Ngidi H, Reddy J, Barker PM, Rollins N. Making Public Health Information Better: Results of a Data Improvement Effort in KwaZulu Natal, South Africa. *Bull World Health Organ* 2012;90:176–182
14. Sifrim ZK, Barker PM, Mate KS. What gets published: the characteristics of quality improvement research articles from low- and middle-income countries. *BMJ Qual Saf*. 2012;21(5):423-31.
15. Webster PD, Sibanyoni M, Malekutu D, Mate KS, Venter F, Barker PM, Moleko W. Using Quality Improvement to Accelerate Highly Active Antiretroviral Treatment (HAART) Coverage in South Africa. *BMJ Qual Saf* 2012;21:315-324.
16. Mate KS, Ngidi W, Reddy J, Mphatswe W, Rollins N, Barker P. A case report of evaluating a large-scale health systems improvement project in an uncontrolled setting: a quality improvement initiative in Kwa Zulu Natal, South Africa. *BMJ Qual Saf*. 2012; 22(11): 891-8.
17. Mate KS, Ngubane G, Barker, PM. A quality improvement model for the rapid scale-up of a program to prevent mother-to-child HIV transmission in South Africa. *Int J Qual Health Care*. 2013; May 24.
18. Mate KS, Sifrim ZK, Chalkidou K, Cluzeau F, Cutler D, Kimball M, Morente T, Smits H, Barker P. Improving health system quality in low- and middle-income countries that are expanding health coverage: a framework for insurance. *Int J Qual Health Care*. 2013 Oct;25(5):497-504.
19. Ngidi W, Reddy J, Luvuno Z, Rollins N, Barker P, Mate KS. Using a Campaign Approach among Health Workers to Increase Access to Antiretroviral Therapy for Pregnant HIV-infected Women in South Africa. *J Acquir Immune Defic Syndr*. 2013 Mar 19.
20. Parry G, Mate K, Perla R, Provost L. Promotion of improvement as a science. *Lancet*. 2013; 381(9881):1902-3. (Correspondence)
21. Zuckerman B, Margolis PA, Mate KS. Health Services Innovation: The Time is Now. *JAMA*. 2013; 309(11): 1113-1114.

22. Severe L, Benoit D, Zhou X, Pape JW, Peeling RW, Fitzgerald DW, Mate KS. Rapid Testing Technology and Systems Improvement for the Elimination of Congenital Syphilis in Haiti: Overcoming the “Technology to Systems” Gap. *Journal of Sexually Transmitted Diseases*. 2013; (12): 1-7.
23. Zuckerman B, Nathan S, Mate KS. Preventing Unintended Pregnancy: A Pediatric Opportunity. *Pediatrics*. 2014 Feb;133(2):181-3.
24. Laderman M, Mate KS. Integrating Behavioral Health into Primary Care. *Healthcare Executive*. 2014; Mar/Apr: 74-77.
25. Mate KS, Williams D. Enhancing Pre-hospital Emergency Care Can Influence Hospital Results. *Healthcare Executive*. 2014. Sept/Oct: 64, 66-67.
26. Smits H, Supachutikul A, Mate KS. Hospital Accreditation: Lessons from Low- and Middle-Income Countries. *Globalization & Health*. 2014. Sep 4;10:65
27. Mate KS, Rooney A, Supachutikul A, Gyani G. Accreditation as a Path to Achieving Universal Quality Health Coverage. *Globalization & Health*. 2014. 10:68
28. Wajanga BMK, Webster LE, Peck RN, Downs JA, Mate K, Smart LR, Fitzgerald, DW. In Patient mortality of HIV-infected adults in sub-Saharan Africa and possible interventions: a mixed methods review. *BMC Health Services Research* 2014, 14:627.
29. Mate KS, Mehta NP. A two-way street: What the US can learn from resource-limited countries to improve healthcare delivery and reduce costs. *Jt Commision Journal Qual Pat Safety*. 2015 May;41(5):236-9
30. Mate, KS, Johnson MB. "Designing for the Future: Quality and Safety Education at US Teaching Hospitals." *Journal of Graduate Medical Education* 7.2 (2015): 158-159.
31. Manumbu S, Smart LR, Mwale A, Mate KS, Downs JA. Shortening turnaround times for newborn HIV testing in rural Tanzania. *Plos Med*. 2015 12(11): e1001897. doi:10.1371/journal.pmed.1001897
32. Johnson, LF, Mate KS, Moses JM. "Leveraging Trainees to Improve Quality and Safety at the Point of Care: Three Models for Engagement." *Academic Medicine* Apr;91(4):503-9.
33. Laderman M, Mate KS. Non-Traditional Health Workers for patients with medical and behavioral needs – What works? *Healthcare* 2016.
34. Laderman M, Mate KS. Innovative Approaches to Behavioral Health Integration in Acute Medical Care. *Jt Commision Journal Qual Pat Safety*. June 2016.
35. Berry L, Mate KS. Essentials for Improving Service Quality in Cancer Care. *Healthcare* 2016.
36. Scoville R, Little K, Rakover J, Luther K, Mate KS. Front-line clinical management: Building a High Performance Management System for Sustaining Quality of Care. Institute for Healthcare Improvement Innovation Series White Paper, IHI June 2016.
37. Wyatt R, Botwinick L, Mate KS, Whittington J. Health Equity for Healthcare Organization. Institute for Healthcare Improvement Innovation Series White Paper. IHI August 2016.
38. Duncan J, Mate KS. New Payment Models Drive Value. *Healthcare Executive*. 2016. Nov/Dec: 64-66.
39. Howard IL, Bowen JM, Al Shaikh LA, Mate KS, Owen RC, Williams DM. Development of a trigger tool to identify adverse events and harm in emergency medical services. *Emerg Med J*. 2017 Feb 2;emermed-2016.
40. Johnson MB, Mather C, Mate KS. Investing in Better Care for Individuals with Complex Needs: Priorities for the Field. *Healthcare Executive*. May/June 2017: 66-67.
41. Mate KS, Rakover J, Munch D, Pugh M. Ensuring Healthcare Improvements Stick. *Healthcare Executive*. 2017. Jan/Feb: 66-69.
42. Puri L, Das J, Pai M, Agrawal P, Fitzgerald E, Kelley E, Kesler S, Mate KS, Mohanan M, Okrainec A, Aggrawal R. Enhancing Quality of Medical Care in Low and Middle Income Countries through Simulation-Based Initiatives: Recommendations of the Simnovate Global Health Domain Group. *BMJ Stel* 2017;0:1–9. doi:10.1136/bmjstel-2016-000180
43. Mate KS, Berman A, Laderman M, Kabcenell A, Fulmer T. Creating Age-Friendly Health Systems—A vision for better care of older adults. *Healthcare: Journal of Delivery Science and Innovation* 2017 Aug 1. Elsevier.
44. Berry LL, Danaher TS, Beckham D, Awdish RL, Mate KS. When Patients and Their Families Feel Like Hostages to Health Care. *Mayo Clinic Proceedings* 2017 Sep 1 (Vol. 92, No. 9, pp. 1373-1381).
45. Pelton LJ, Fulmer T, Hendrich A, Mate KS. Creating Age Friendly Health Systems: A challenge for today’s leaders is how to meet the needs of a growing population of older adults. *Healthcare Executive* 2017 Nov/Dec: 62-63

46. Fulmer T, Mate KS, Berman A. The Age-Friendly Health System Imperative. *Journal of the American Geriatrics Society*. 2017: 1-3
47. Johnson MB, Rakover J, Mate KS. Key Elements of a Population Based Approach to Improving Birth Outcomes. *Population Health Management*. 2017: 1-2
48. Martin LA, Mate K. *IHI Innovation System*. IHI White Paper. Boston, Massachusetts: Institute for Healthcare Improvement; 2018.
49. Daley Ullem E, Gandhi T K, Mate KS, Whittington J, Renton M. *Framework for Board Governance of Health System Quality*. IHI / Lucian Leape Institute White Paper. Boston, Massachusetts: Institute for Healthcare Improvement; 2018.
50. Humowiecki M, Kuruna T, Sax R, Hawthorne M, Hamblin A, Turner S, Mate KS, Sevin C, Cullen K. Blueprint for complex care: advancing the field of care for individuals with complex health and social needs. Available at: www.nationalcomplex.care/blueprint. December 2018.
51. Rakover J, Mate KS. The Answer to Culture Change Lies in Everyday Management Tactics: Examining Two Health Care Pilots. *NEJM Catalyt*. March 2019
52. National Academies of Sciences, Engineering and Medicine. 2019. *Integrating social care into the delivery of health care: Moving upstream to improve the nation's health*. Washington DC: The National Academies Press.
53. Mate KS, Rakover J, Cordiner K, Noble A, Hassan N. Novel quality improvement method to reduce cost while improving the quality of patient care: retrospective observational study. *BMJ Quality & Safety* Published Online First: 23 January 2020. doi: 10.1136/bmjqs-2019-009825
54. Mate KS. Sustaining Improvement in an Era of Prevailing Distraction: Lessons from I COUGH. *Joint Commission Journal on Quality and Patient Safety*. 2020 46: 239-240
55. Arora S., Mate KS, Jones J, Sevin C, et al. Collaborative Learning for Quality Improvement: Evidence from the Improving Clinical Flow project. *Joint Commission Journal*. Accepted for publication.
56. Pinkey P, Levy, N, Mate KS, Berman A, Pelton L, Kalache A, Fulmer T. A New Age: Moving Toward an Age-Friendly Ecosystem. *Journal of American Geriatrics Society*. Accepted for publication.
57. Barker P, Mate KS, Berwick D. Rapid Learning to Combat COVID-19. *British Medical Journal*. Accepted for publication.
58. Pelton L, Knihtila M, Mate KS, Renton M, Goldmann D. A Systematic Approach to Sourcing and Implementing Innovations from Other Countries to Address US Healthcare Delivery Challenges. *Healthcare*. Under review.

Chapters, Monographs & Other Non-Peer Reviewed Publications

1. Mate, K, Irwin, A, Millen, J. Redressing the balance—The AIDS drugs story. *International Health Exchange*. 2001;(10):5-9.
2. Millen J, Mate K, Irwin A. The World Development Report 2000/2001—Implications for Health Care. *International Health Exchange*. 2001;(2):21-23.
3. Mate, K. Not Since 1918. In: *The Soul of a Doctor*. New York: Algonquin; 2006.
4. Mate K, Griffin F. How-to Prevent Catheter-Associated Urinary Tract Infections. In: *Institute for Healthcare Improvement How-To-Guides*. Cambridge, MA: Institute for Healthcare Improvement; 2008. p. 1-31.
5. Barker P, Sifrim ZK, Mate KS, Larson C, Kirkwood BR, Peterson S, Martinez J, Rollins N. Delivering interventions for newborn and child survival at scale: a review of research evidence. *First Global Health Symposium on Health Systems Research Conference Background Paper*, Montreux, 2010.
6. Mate KS, Johnson MB, Sifrim Z. IHI 90-Day R&D Project Final Summary Report: Approaches to Training Faculty at Academic Medical Centers to Ensure that Clinical Trainees Become Effective Improvers. Cambridge, MA: Institute for Healthcare Improvement; November 2012.
7. Mate KS, Johnson MB, Deen N. IHI 90-Day R&D Project Final Summary Report: Improving Graduate Medical Education: Innovations in Primary Care and Ambulatory Settings. Cambridge, MA: Institute for Healthcare Improvement; January 2013.
8. Mate KS, Fryer AK. Advancing Patient Safety in Low and Middle-Income Countries. In: *Managing Quality: Tools, Skills and Capacities for Health Leaders*. Pearson: 2012.

9. Ostrovsky A, Deen N, Simon A, Mate KS. A Framework for Selecting Digital Health Technology. IHI Innovation Report. Cambridge, MA: Institute for Healthcare Improvement; June 2014.
10. Mate KS, Bryan C, Deen N, McCall J. Review of Health System of the Middle East and North Africa Region. Elsevier Reference Module in Biomedical Science. Elsevier: 2014.
11. Mate KS, Compton-Phillips AL. The Antidote to Fragmented Health Care. Harvard Business Review, 2014: December.
12. Mate KS, Svoronos T, Fitzgerald DW. Implementation Science and Translational Public Health. In: Oxford Textbook of Public Health 6th Edition. Oxford University Press. 2015
13. Mate KS, Berwick DM, Feeley D, LaForgia G. Strengthening Implementation of Service Delivery Reform. In Healthy China: Deepening Health Reform in China. Building High Quality and Value-Based Service Delivery. China Joint Study Partnership, World Bank 2016.
14. Cico, Altea, Sharon Nakhimovsky, Lisa Tarantino, Kelley Ambrose, Lopa Basu, Surabhi Batt, Ruben Frescas, Kelley Laird, Kedar Mate, Lauren Peterson, Cristina Sciuto, Rachel Stepka. July 2016. *Governing Quality in Health Care on the Path to Universal Health Coverage: A Review of 25 Country Experiences*. Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc.
15. Mate, K., Bryan, C., Deen, N., McCall, J., 2017. Review of Health Systems of the Middle East and North Africa Region. In: Quah, S.R. and Cockerham, W.C. (eds.) The International Encyclopedia of Public Health, 2nd edition. vol. 6, pp. 347–356.
16. Mate KS, Rakover J. 4 Steps to Sustaining Improvement in Health Care. Harvard Business Review, November, 2016
17. Mate KS, Wyatt R. Health Equity Must be a Strategic Priority. NEJM Catalyst January 4, 2017.
18. Anderson AH, Martin LA, Mate KS. The Value of Teaching Patients to Administer their own care. Harvard Business Review. June 2, 2017.
19. Mate KS, Rakover J, Cordiner K, Maskell B. A Simple Way to Involve Front-line Clinicians in Managing Costs. Harvard Business Review. October 11, 2017
20. Dale C, Compton-Phillips A, Mate KS. Personalized Perfect Care. NEJM Catalyst, September 28, 2017.
21. Pelton LJ, Mate KS, Fulmer T, Berman A. Age Friendly – Creating Age-Friendly Health Systems. Health Progress, January - February 2018. Catholic Health Association of the United States. Pg 87-88.
22. Task Force on Global Advantage. "The Task Force on Global Advantage Report." 2018. The Arnhold Institute for Global Health.
23. Mate KS, Pelton L, Berman A, Fulmer T. Age-Friendly Health Systems. In Handbook for Geriatric Assessment 5th edition. Eds Fulmer T, Chernoff B. Jones & Bartlett Learning 2018 p31-40.
24. Reid A, Mate K. Making Health Equity a Strategic Priority. Population Health News. 2018 5(5): 1-4
25. Kachirskia I, Mate KS, Neuwirth E. Human-centered design and performance improvement: better together. NEJM Catalyst. June, 2018;28.
26. Mate KS, Fulmer T, Berman A, Pelton L, Gilmartin MJ. Chapter 27: Moving to Age-Friendly Health Systems. In: NICHE: Nurses Improving Care to the Healthsystem Elders. Accepted for publication
27. Fulmer T, Berman A, Mate K, Pelton L. Age-Friendly Health Systems: The Four-M's. In: Try This: Best Practices in Nursing Care for Older Adults. Hartford Institute for Geriatric Nursing. 2018
28. Tabbush V, Pelton L, Mate K, Duong T. The Business Case for Becoming an Age-Friendly Health System. Boston, Massachusetts: Institute for Healthcare Improvement; 2019. Available at: www.ihl.org/AgeFriendly

D. Research Support

Hartford Foundation

Mate (PI)

2016; 2017-2020; 2020-2023

Age-Friendly Health System Concept Design

The purpose of this initial grant was to identify the core features of evidence-based geriatric practice models and to develop a concept design for a national initiative that would spread these core features.

Role: Principal Investigator

Age Friendly Health System Implementation and Spread

Following the concept design and development of an Age-Friendly Health System model, this follow-on grant supported work in three phases, first test a new model of care for older adults in five major US health systems, then to scale the model up initially in these five systems, and finally to initiate a national campaign to spread the model to over 1000 health care institutions nationwide.

Role: Principal Investigator

Scottish Government

Mate (PI)

2016-2017; 2018-2021

Continuous Value Management

The purpose of this funding support is to work with the Highland National Health Service Board to implement a model for continuous value management developed by IHI to optimize efficiency in the clinical service unit. Pending successful initial implementation, the model will be scaled up throughout the Scottish NHS.

Role: Principal Investigator

Value Management National Expansion

The purpose of this large-scale funding support is to work with Scotland's National Health Service to scale-up and spread value management methods nationwide beginning in six Boards in 2019 with plans to reach full-scale over 3 years.

Role: Principal Investigator

Novartis Foundation

Mate (PI)

2020-2022

Pursuing Equity 2.0

The purpose of this funding support is to support the second phase of an initiative with 20+ US health systems to reduce specific clinical disparities and improve non-clinical support functions of the health systems that might be contributing to inequitable outcomes.

Role: Principal Investigator

PCORI – via sub-agreement with Cincinnati Children's Hospital Medical Center

Learning Health Networks

Margolis (PI)

2017-2020

Cincinnati Children's with IHI's support has developed successful learning health system networks for eight specific pediatric clinical conditions (e.g. inflammatory bowel disease, epilepsy etc). For this grant, CCHMC began the work of scaling up these networks and adding several additional networks. IHI is a sub-grantee to provide technical support to the new networks.

Role: Co-investigator

Commonwealth Fund; Robert Wood Johnson Foundation; SCAN Foundation

Blueprint for Complex Care

Humowiecki M (PI)

2017-2018

This one-year award from multiple foundations was to develop a Blueprint report for the development of an inter-disciplinary field that would address individuals living with complex health and social needs. If successful, the blueprint would catalyze additional investment in the developing the field further both in research, implementation and patient partnership.

Role: Co-Investigator

Multiple Funders (Rx and 5 health system)

Mate (PI)

2017-2019

Pursuing Equity

The purpose of this funding support from multiple funding sources is to launch an initiative with eight US health systems to reduce clinical disparities and improve non-clinical support functions of the health systems that might be contributing to inequitable outcomes.

Role: Principal Investigator

Multiple Funders (6 funder collaborative)	Mate (PI)	2016-2019
The Playbook for Patients with Complex Needs		
The purpose of these four successive grants was to initially develop a curated virtual resource of resources and tools from 6 foundations (Commonwealth Fund, Hartford Foundation, Peterson Center, SCAN Foundation, Robert Wood Johnson Foundation, Milbank Memorial Fund) to improve care for patients with complex medical and social needs. In subsequent years, funds were provided to expand the virtual resource, add new functionality to the site, new interactions with the community and to deepen the knowledge about primary research gaps in the field of complex care.		
Role: Co-Principal Investigator		
GE Foundation	Mate (PI)	2016-2017
Improving Clinical Flow		
The purpose of this grant is to develop a new model for develop capability for improvement using the telementoring and coaching model of Project ECHO. The focus of this project is to direct that improvement knowledge and skill towards improving flow of patients through federally qualified primary health care centers with the intended clinical goal of improving cancer screening, diabetes and asthma care.		
Role: Principal Investigator		
Rx Foundation	Mate (PI)	2016-2017
Improving Contraceptive care of Underserved women in Detroit		
The purpose of this grant is to work with the Women Inspired Network (WIN)—a group established by Henry Ford Health system to improve maternity services for underserved women in the inner city of Detroit. The grant tests a new model of providing long-acting contraceptive care to women who were recently pregnant in conjunction with group perinatal counseling and a maternity medical home model.		
Role: Principal Investigator		
West Health Institute	Mate (PI)	2016-2017
Transitions from Emergency Room to Home for Seniors		
The purpose of this grant is to develop an approach to improving care for seniors in emergency rooms and to increase the likelihood that seniors would be transitioned, if appropriate, to home or community-based care settings as opposed to being admitted to the hospital.		
Role: Principal Investigator		
Hartford Foundation	Mate (PI)	2016
Age Friendly Health System Design		
The purpose of this grant is to work with 25 geriatric experts and four leading health systems to develop a scalable prototype for age-friendly care. The prototype will be tested in subsequent rounds of funding with initially four health systems and then scaled up nationally.		
Role: Principal Investigator		
Accreditation Council for GME	Mate (PI)	2016
Pursing Excellence Initiative		
Assist ACGME in designing and launching a program aimed at identifying 8-10 leading innovators in graduate medical education and developing a learning community to accelerate the pace of change		
Role: Principal Investigator		
Commonwealth Fund	Mate (PI)	2015-2017
Better Health Lower Cost Toolkit and Guide		
The purpose of this grant is to develop a consolidated toolkit and guide to help organizations better manage high-risk, high-cost patient populations.		
Role: Principal Investigator		

Commonwealth Fund	Goldmann (PI)	2015-2018
US-OECD Innovators Network		
The purpose of this grant is to identify key health care delivery innovations from OECD countries outside the US that can be implemented by a group of 15 US healthcare delivery systems. In phase 2 of this grant, those US delivery systems will test these innovations in their clinical environments.		
Role: Co-Investigator		
HRET	Goldmann (PI)	2014-2016
Ambulatory Surgery Sustainability		
This project seeks to implement safe surgery practices in 650+ ambulatory surgery centers all over the US. IHI's specific focus is on ensuring that implemented better practices are sustained in the participating Institutions.		
Role: Co-Investigator		
Cornell AHRQ T32	Charlson (PI)	2014-2016
Training grant for Masters in Science.		
Teach the Implementation Science Course within the training program for post-graduate level trainees.		
Role: Faculty		
NIH/Fogarty	Fitzgerald, Pape, Co-PIs	2004-2014
Haiti AIDS Research Training: Models to Implementation (ICOHRTA)		
The goal of this grant to increase capacity in integrated clinical, operational, and health services research.		
Role: Investigator		
Bugando Fellowship Program	Fitzgerald, D (PI)	2011-2014
Mulago Foundation		
The purpose of this grant is to provide training to Tanzanian physicians in operations research and implementation science.		
Role: Investigator		
Family Health International (FHI)	Karim, QA (PI)	2011 – 2014
Phase IIIb Open-Label Randomized Controlled Trial to Assess the Effectiveness and Safety of Tenofovir Gel Provision through Family Planning Services in KwaZulu-Natal, South Africa		
The aim of this study is to deliver an efficacious microbicide gel through routine family planning services in the public health system in South Africa using quality improvement methods to improve family planning service delivery.		
Role: Investigator		
CDC / PEPFAR	Karim, QA (PI)	2010 - 2012
AIDS International Training and Research Program: Implementation Science Course		
Implementation science training program for 10-15 senior public health researchers. Taught in all three course modules and supervised implementation science research activities over two years.		
Role: Investigator		
CDC Public Health Evaluation	Mate, KS (PI)	2010 - 2013
The effectiveness of an HIV-adapted Integrated Management of Childhood Illness training and supervision programme of community health workers to support interventions that will reduce Mother-to-Child HIV transmission and improve Delivery of Other Essential Newborn and Child Survival Interventions.		
The aim of this study is to rapidly implement community-based IMCI using QI methods of supervision and support to improve delivery of critical newborn and child survival interventions.		
Role: Principal Investigator		

Clinton Foundation

Youngelson (PI)

2009 - 2010

Documentation of Best Practices for HIV treatment in South Africa

The aim of this project was to gather the best practices on HIV care from throughout South Africa to provide guidance to public health centers that were starting HIV care and treatment services.

Role: Investigator

Department for International Development

Mate (PI)

2009 - 2010

National Department of Health's PMTCT "Accelerated Plan" to reduce perinatal HIV in 18 Districts in South Africa by 2011. Lead Partner for Health Systems

The aim of this study was to rapidly spread a systems improvement approach throughout 18 District in SA with the aim of reducing perinatal HIV transmission to government targets of less than 5%.

Role: Principal Investigator

David-Rockefeller Center for Latin American Studies

Castro (PI)

2009 - 2010

The Perinatal and Neonatal Clinical History Form (PANC) Project: Columbia, Peru and the Dominican Republic

The aim of this study was to document the HIV and syphilis testing rates throughout three Latin American countries and to describe problems in data collection and laboratory processing that may impede access to critical HIV and syphilis prevention and treatment services.

Role: Consultant

CDC / PEPFAR

Reddy (PI)

2008 - 2013

20000+ Partnership to Reduce Perinatal HIV transmission to the National Strategic Targets

The aim of this study is to reduce MTCT rates across three large district in KZN to less than 5% using quality improvement methods and interventions derived from facility-level best practices.

Role: Investigator

E. Teaching**Post-Graduate Courses****Institute for Healthcare Improvement Fellowship Program**

Institute for Healthcare Improvement, Boston MA, 2019-present

Two-day seminar, focused on adaptive and technical leadership skills, within a 10-day multi-faculty program taking place over the course of a year. Each cohort of Fellows is training in leadership and improvement science. 25-30 mid-career professionals, quality and safety leaders and health system executives.

Intermountain Advanced Training Program

Intermountain Healthcare Quality Education System, Salt Lake City, UT 2018-present

One day seminar in a two-week multi-faculty program in expert improvement science by Intermountain Healthcare. 25-30 mid-career professionals, quality and safety leaders and health system executives.

Executive Education: International Leadership Development Program

Harvard School of Public Health, Boston, MA 2015-present

One day seminar in a two-week multi-faculty executive education program at Harvard School of Public Health. 25 mid-career professionals and health system leaders.

HPM 253: Improvement in Quality of Health Care

Boston, MA, Harvard School of Public Health, 2014-present

3 week course in the Harvard School of Public Health's Clinical Effectiveness Program. Class size between 70-80 students.

Implementation Science Training Course

Port-au-Prince, Haiti 2010-2011

Two, two-day seminars over the course of six-months focused on improving the implementation of evidence-based practices to improve syphilis testing and treatment amongst pregnant women. The course was attended by physicians, advanced practice nurses and health system managers from fifteen clinics.

Implementation Science Training Course

Bugando Regional Medical Center, Mwanza Tanzania 2011-2012

Three, four-day seminars over the course of a year focused on improving the implementation of evidence-based practices to improve a variety of healthcare conditions ranging from colorectal cancer screening, to early infant diagnosis of HIV, to TB/HIV co-management. The course was attended by physicians, advanced practice nurses and health system managers from the medical center and its surrounding clinics.

Implementation Science Training Course

University of Kwa Zulu Natal, Durban, South Africa, 2011-2012

Three, one-week seminars over the course of a year focused on improving the implementation of evidence-based practices to improve a variety of healthcare conditions. The seminar was attended primarily by graduate students, physicians, advanced practice nurses and health system managers from the university.

Clinical Innovation Academy

Boston Combined Pediatric Residency, Boston, MA 2013-2014

Provide mentorship and guidance to two or three clinical trainees annually who are interested in clinical innovation and health services improvement. This elective program is attended primarily by clinical residents from the Boston combined pediatric residency program.

Implementation & Improvement Science

AHRQ T-32 Weill Cornell Medical College, Mary Charlson, PI, New York, NY 2014-present

Five two-hour seminars over the course of one week on the science of implementation to AHRQ T-32 post-graduate health services research fellows. Class size usually between 10-15.

Study Sections

Translating Research into Action (TRACTION) study section

USAID and the University Research Co. October 2011. Served as a member of the study section reviewing proposals to address gaps in translating effective interventions into scaled-up field programs.

Abstract & Paper Review

Lancet, Journal of the American Medical Association, New England Journal of Medicine, BioMed Central Journal of Public Health, International AIDS Society, Academy for Healthcare Improvement

Invited Intramural Lectures

Scholarship of Improvement

Weill Cornell Medical College, Department of Medicine, Faculty Development Series, Jan 2012

2 one-hour lectures with 5-10 faculty members interested in quality improvement.

Quality Improvement Basics

Weill Cornell Medical College, New York Presbyterian Hospital Quality Improvement and Patient Safety Committee and the Division of Hospital Medicine, Oct 17, 2011

One hour lecture on the basics of quality improvement program design and evaluation.

The Science of Improvement

Weill Cornell Medical College, Department of Medicine, Faculty Development Program, May 2012.

A one-day workshop for ten-fifteen faculty members interested in designing quality improvement programming that will lead to scholarly publication.

Scholarship of Improvement

Weill Cornell Medical College, Department of Medicine, Faculty Development Series, Jan 2013

2 one-hour lectures with 5-10 faculty members interested in quality improvement.

Department of Medicine Grand Rounds

Weill Cornell Medical College, Department of Medicine, Grand Rounds, Jan 2014

1 one-hour lecture with 50-70 faculty members and students.

F. Notable Extramural Conferences & Meetings & Lectures

Conferences Committees / Chair

- Academy for Healthcare Improvement, “18th Annual Scientific Symposium” December 2012. Planning Committee member
- International AIDS Society: “XVIII International AIDS Conference,” Vienna, July 18-23, 2010. Rapporteur
- South African AIDS Conference. Durban, South Africa, Jun 7-11, 2011. Rapporteur
- 2013 Scientific Symposium on Quality Improvement in Health care. Co-chair
- Middle East Forum on Quality Improvement in Health care 2013. Co-chair
- Asia-Pacific Forum on Quality in Health 2014. Program Committee Member
- Hamad Healthcare Quality Institute. International Advisory Panel. IAP Member.
- Institute of Medicine. Workshop on Improving Quality of Care in Low-and Middle-Income Countries. Planning Committee Member
- National Association of State EMS Officials: EMS Measurement Selection Committee for the US Department of Transportation’s National Highway Traffic Safety Administration. Steering Committee Member.

Notable Lectures & Presentations (limited to no more than 5 per year)

2011

- 1st Biennial Global Implementation Conference, Washington DC, August 15-17, 2011. Oral presentation “Improvement Science: A Methodology to Guide Reliable Implementation of Health Interventions at Scale.”
- Academy for Healthcare Improvement, “17th Annual Scientific Symposium,” Orlando, FL, December 5th, 2011

2012

- Rockefeller Foundation: “Joint Learning Network for Universal Health Coverage Cross-track meeting,” Bellagio, Italy, March 29-April 2nd, 2012..
- TEDMED, “Annual conference, grand gathering,” April 10-13, 2012. Meeting participant and Robert Wood Johnson Foundation “Great Challenge” Advocate.
- Salzburg Global Seminar: “Making Health Care Better in Low and Middle Income Economies: What are the next steps and how do we get there?” Salzburg, Austria, April 22-27, 2012. Meeting participant.

- King Fahd Medical City. Innovation Forum. December 14-16, 2012, Riyadh, Saudi Arabia. Plenary speaker and Leadership seminar co-lead.

2013

- Joint Learning Network, "Accreditation for Improvement," Bangkok Thailand. April 10-12, 2013. Keynote Speaker and Workshop moderator.
- Hamad Medical Corporation, "Making sense of the challenge of Improving Patient Care Across the System" in the First Middle East Forum on Quality Improvement in Health Care, Doha Qatar, May 17-19, 2013. Keynote Address.
- Mexico Ministry of Health, "How can Payers Drive Quality in Large Systems" in the Mexican Summit on Quality in Health Care, July 14-16, 2013. Keynote Address.
- King Faisal Medical City, "Everyone's Work: Making sense of the challenge of Improving Patient Care Across the System" in the 3rd Annual Quality and Safety Conference, Riyadh Saudi Arabia, October 2013. Keynote Address.
- SEHA Health System. "Patient's the Next Blockbuster Drug" in SEHA Quality and Patient Safety Week, Abu Dhabi, United Arab Emirates, December 10-14 2013. Keynote Address.

2014

- Weill Cornell Medical College, "Implementation Science: Making Health Systems Work," Medicine Grand Rounds January 21, 2014.
- King Saud Medical City, "Patients: the Next Blockbuster Drug" in KSMC Quality Day, Riyadh, Saudi Arabia, February 12, 2014. Keynote address.
- Virginia Commonwealth University Health Systems, "What if? The Uses of Systems Science," Medicine Grand Rounds, February 27, 2014.
- Hamad Medical Corporation, "Going Full Scale: Innovation for Driving Improvement," in the Second Middle East Forum on Quality Improvement in Health Care, Doha, Qatar, April 25-27, 2014. Keynote Address.
- The 9th Annual Congress of Japanese Society for Quality and Safety in Healthcare & International Forum on Quality and Safety in Healthcare, "Patient Safety and Improvement Efforts at Frontline" and "Quality Improvement for Patient-Centered Care", Tokyo, Japan, November 23-24th, 2014. Keynote Lectures.

2015

- Society for Hospital Medicine, Annual Meeting, "Using Data to Drive Improvement," Washington, DC, March 2015
- Lebanese Society for Quality and Safety in Healthcare, "Patient Engagement & Safety at the Front-lines of Healthcare," in Third Annual Lebanese Society Meeting. Beirut: September 19. Keynote Address.
- Virginia Palliative Care Association, "The Triple Aim: Why Palliative Care is the Future of Healthcare," in Virginia Commonwealth University Annual Palliative Care meeting. Richmond, VA: October 20. Keynote Address.
- ACGME, "Leadership & reforming Graduate Medical Education," ACGME Pursuing Excellence Series, Washington DC: November 3. Speaker & Panelist.

2016

- Global Healthcare Professionals Network. "Innovations in Hospital Safety," in HAC conference. Atlanta, GA: February 26. Keynote address.
- McGill University, "Innovating in your organization," in Simnovate Conference. Montreal, Canada: May 6. Keynote address.
- Dartmouth Institute, "Learning at Scale: what works, what doesn't and how can we get better at learning about learning," in Distinguished Lecture Series. Hanover, NH: May 10. Guest lecturer.
- The Joint Commission, "The Pursuit of Equity: Business case and an Initiative," in Joint Commission Series on Race and Equity. Chicago, IL: Sept 16. Keynote.

2017

- Defense Health Agency and Military Health System. "Methods and Operations for Large-Scale Change," in MHS Leadership retreat. Washington DC: March 31. Keynote

- Social Medicine Consortium. "Crossing Boundaries in Pursuit of Justice: Interprofessional Challenges and Successes." Chicago IL: April 29. Plenary Panel
- Aspen Institute. "Improving Care for the Sickest People" in Aspen Ideas Festival. Aspen, CO: June 23. Lead presenter.
- St Joseph Mercy Health System. "Moving Towards an Age-Friendly Health System." Livonia, MI: October 5. Keynote.
- Harvard Business Review. "Controlling Health Care costs with Continuous Value Improvement." October 26. Radio program.

2018

- Snowbird Health. "Co-producing Health outcomes with Patients." In Snowbird Health 2.0. Salt Lake City, UT: Feb 16. Lead presenter.
- West Health. "From research to reality: evidence is not enough." In American Geriatrics Society West Health Pre-conference research meeting. Orlando, FL: May 2. Keynote.
- Patient Centered Outcomes Research Institute. "Reaching All." In PCORI Learning Networks meeting. Cincinnati, OH: September 5. Keynote.
- Hartford Hospital. "Age Friendly Health Systems: Strategies to Address Missed Care." In Annual Geriatrics Nursing Conference. Hartford, CT: November 2. Keynote

2019

- American Hospital Association. "Age-Friendly Health Systems: Scaling Better Care for Older adults." Chicago, IL: April 17. Lead presenter.
- American Geriatrics Society. "The 5Ms of Geriatrics Guiding the 4Ms of Age-Friendly Health System." In AGS Annual meeting. Portland, OR: May 2. Keynote.
- Modern Healthcare. "Age-Friendly Health Systems: Improving Care for Older Adults." Modern Healthcare. Aug 7. Lead Presenter.
- Tower Health. "Reaching All: It's time for an Age-Friendly Health System." Charles Sullivan Invited Lecture. Reading, PA: September 16. Keynote.
- Grantmakers in Aging. "Age-Friendly Action Communities: A Vehicle for Change." Brian F. Hofland Invited Lecture. New York, NY: October 17. Plenary panel.
- Maryland Healthcare Education Institute. "Building Better systems of care: 5 developments in US healthcare." Baltimore, MD: October 18. Keynote.
- National Center for Complex Care. "Moving Upstream: NAM Report on Social Care and Healthcare Integration." Memphis, TN: November 14. Keynote.
- Baylor Scott and White Health. "Reaching All: It's time for an Age-Friendly Health System." Temple, TX. December 6. Grand Rounds.
- Institute for Healthcare Improvement. "A Year at IHI in One Hour." Orlando, FL. December 10. Keynote Panel.