

PARTNERING FOR ACTION: APPLYING WHAT WE'VE LEARNED

Partnership for Health IT Patient Safety

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Partnering for Action 2015 Contributors and Expert Advisory Panel

Jason Adelman, MD, MS, is the Chief Patient Safety Officer and Associate Chief Quality Officer of New York-Presbyterian Hospital/Columbia University Medical Center. He received a master's of science from the Albert Einstein College of Medicine's Clinical Research Training Program, and focuses his research on the use of information technology to prevent medical errors. After completing the AHA-NPSF Patient Safety Leadership Fellowship in 2011, Dr. Adelman was invited to be a Senior Fellow of the Health Research & Educational Trust (HRET), the research arm of the American Hospital Association. He is currently the PI on an AHRQ funded study to assess the relationship between the number of records open at the time of placing an order, and the risk of placing an order on the wrong patient. Dr. Adelman is a member of both the National Quality Forum (NQF) Committee on Patient Safety Measures and the NQF HIT Safety Committee, and was invited by the New York State Commissioner of Health to participate as a member of the Department of Health's Quality and Patient Safety External Advisory Committee. Dr. Adelman has been a member of the Planning Committee for the National Patient Safety Foundation Annual Congress since 2011, and is on the editorial board of the Journal for Healthcare Quality. In 2013, Dr. Adelman was named one of "50 Experts Leading the Field of Patient Safety" by Becker's Hospital Review.

David W. Bates, MD, MSc, is an internationally renowned expert in patient safety, using information technology to improve clinical decision-making, quality-of-care, cost-effectiveness, and outcomes assessment in medical practice.

Dr. Bates is the chief innovation officer at Boston's Brigham and Women's Hospital (BWH) and a founding member of Partners Healthcare. He is charged with translating inventions, discoveries and new ideas into services and products that benefit patients and improve the delivery of care. He also serves as executive sponsor of the Brigham Innovation Hub, a catalyst of innovation across the hospital.

Dr. Bates, an expert on patient safety, has been active in federal advisory committees on health IT. He is a member of the Health IT Policy Committee and chaired the FDASIA Work Group.

He is chief of the Division of General Medicine and Primary Care at BWH. He is also a professor of medicine at Harvard Medical School and a professor of Health Policy and Management at the Harvard School of Public Health, where he co-directs the Program in Clinical Effectiveness. He also serves as medical director of Clinical and Quality Analysis for Partners Healthcare. He directs the Center for Patient Safety Research and Practice at BWH and serves as external program lead for research in the World Health Organization's Global Alliance for Patient Safety. He is the editor of the *Journal of Patient Safety*.

Dr. Bates is a graduate of Stanford University and the Johns Hopkins School of Medicine. He began his fellowship in general internal medicine at Brigham and Women's Hospital in 1988, and he received a M.Sc. in Health Policy and Management from the Harvard School of Public Health in 1990. He has been elected to the Institute of Medicine (IOM) in 2005, the American Society for Clinical Investigation, the Association of American Physicians and the American College of Medical Informatics. He serves as external program lead for research in the World Health Organization's Global Alliance for Patient Safety, and is President of the International Society of Quality (ISQua). He is the Editor of the *Journal of Patient Safety*. He has well over 700 peer-reviewed publications.

Russell P. Branzell, FCHIME, CHCIO, is the CEO and President of the College of Healthcare Information Executives (CHIME) and its affiliate associations the Association for Executives in Healthcare Information Security (AEHIS), the Association for Executives in Healthcare Information Technology (AEHIT) and the Association for Executives in Healthcare Information Applications (AEHIA).

Prior to joining CHIME as President and CEO in April 2013, Branzell served as CEO for the Colorado Health Medical Group. Before serving as CEO of Colorado Health, he was the Vice President of Information Services and CIO for Poudre Valley Health System and the President/CEO of Innovation Enterprises (PVHS' for-profit IS entity). Before joining PVHS, Branzell was the Regional Deputy CIO and Executive Director of Information Services for Sisters of Mercy Health System in St. Louis, Mo. Before his time in St. Louis, Branzell served on active duty in the United States Air Force and retired from the Air Force Reserves in 2008. While on active duty, he served in numerous healthcare administration positions including CIO for the Air Mobility Command Surgeon General's Office. In 1996, he was selected for the Air Force Medical Service Fellowship program and completed a CIO Internship at the Unity Health System in St. Louis.

A native of San Antonio, Branzell earned an undergraduate degree in business administration specializing in human resource management and labor relations from the University of Texas. In addition, he earned a Master's degree in Aerospace Science from Embry-Riddle University with an emphasis in management.

Pascale Carayon, PhD, a devoted patient safety advocate, Professor of Industrial and Systems Engineering Pascale Carayon is driven to help healthcare professionals and organizations improve patient safety. As an expert in human factors engineering and director of the Center for Quality and Productivity Improvement (CQPI), Carayon has studied patient safety in a variety of healthcare settings, such as outpatient surgery, intensive care units, information technology, medical devices, medication administration, and working environment for healthcare professionals. One hallmark of Carayon's research is her dedication to collaboration. In her healthcare-related projects, she partners with professionals in the area of interest to gain a complete understanding of the contributing factors.

Carayon offers her expertise as an engineer to the healthcare professionals with whom she works, including editing and publishing the *Handbook of Human Factors and Ergonomics in Health Care and Patient Safety*, now the standard text on the application of human factors engineering to patient safety. As a result of her input, healthcare providers can practically apply concepts of human factors

engineering to patient care situations, such as improving patient flow in ambulatory surgery centers or assessing the usability and usefulness of health information technology.

Carayon not only has pursued research opportunities within healthcare but also has volunteered with local, national and international organizations to help improve patient safety. Among these activities, Carayon was a member of the IOM committee on Diagnostic errors in healthcare that recently release the report on Improving Diagnosis. With colleagues in the Department of Industrial and Systems Engineering, CQPI, the School of Medicine and Public Health, the School of Nursing, and the School of Pharmacy, she developed the Systems Engineering Initiative for Patient Safety at the University of Wisconsin-Madison and designed a short course on human factors engineering and patient safety that has become an annual event for healthcare quality and patient safety administrators across the country.

Brian Crawford is a leading member of Epic’s patient safety and quality team, working to promote a strong patient safety culture focused on ease of reporting, urgent response, proactive communication, and continued improvement through root cause analysis. Brian oversees the investigation, escalation, mitigation, tracking, and resolution of potential patient safety issues company-wide. He also contributes to Epic’s educational programs in patient safety culture and best practices, helping shape Epic’s patient safety curriculum and conducting all-Epic and division-level classes and presentations.

Jesse M. Ehrenfeld, MD, MPH, is an associate professor of anesthesiology, surgery, biomedical informatics, and health policy at Vanderbilt University School of Medicine. He was elected to the American Medical Association Board of Trustees in 2014. Dr. Ehrenfeld divides his time among clinical practice, teaching and research. He serves as associate director of the Vanderbilt Anesthesiology & Perioperative Informatics Research Division, a multidisciplinary group of physicians, engineers, developers, analysts and researchers who develop systems to improve anesthetic and surgical outcomes. Dr. Ehrenfeld also has an appointment at Meharry Medical College as a health policy associate.

Trisha Flanagan, RN, MSN, is accountable for patient safety across athenahealth’s cloud-based network including the electronic health record and the patient portal products. She provides proactive design consultation for enhancements and new functionality, as well as reactive support for product improvements. She is responsible for ongoing educational initiatives and for supporting government affairs initiatives and activities.

Prior to joining athenahealth in 2011, Trisha was a risk manager at Boston Children’s Hospital. She previously was the nurse manager of the Emergency Department at Beth Israel Deaconess Medical Center in Boston, and prior to that spent most of her clinical career at Massachusetts General Hospital where she at various times held the roles of Emergency Department clinical nurse specialist, nursing supervisor, and float team staff nurse.

Trisha was a member of the faculty of the graduate nursing program at Massachusetts General Hospital Institute of Health Professions and the undergraduate nursing program at Bunker Hill Community College in Roxbury, Massachusetts.

She holds a master's degree from the Massachusetts General Hospital Institute of Health Professions, a bachelor's degree from Northeastern University, and an associate's degree from Laboure College.

Tejal Gandhi, MD, MPH, Dr. Gandhi is President of the National Patient Safety Foundation and the Lucian Leape Institute. In this role, she is advocating patient safety at the national level, driving educational and certification efforts, and helping create and spread innovative new safety ideas. Dr. Gandhi was formerly the Executive Director of Quality and Safety at Brigham and Women's Hospital, and Chief Quality and Safety Officer at Partners Healthcare. In these roles, she has led the efforts to standardize and implement patient safety best practices across hospital and health systems.

Dr. Gandhi's research interests focus on patient safety and reducing error using information systems. She won the 2009 John Eisenberg award for her contributions to understanding the epidemiology and possible prevention strategies for medical errors in the outpatient setting.

Dr. Gandhi is a board certified internist and Associate Professor of Medicine at Harvard Medical School, and she is a Certified Professional in Patient Safety. She received her MD and MPH from Harvard Medical School and the Harvard School of Public Health, and trained at Duke University Medical Center. Her undergraduate training at Cornell University was in biochemistry.

Terhilda Garrido, MPH, ELP, is Vice President, HIT Transformation & Analytics in National Quality at Kaiser Permanente. She leads efforts and has published on Kaiser's work to understand, study, disseminate, and facilitate strategic value realization and patient safety opportunities from KP HealthConnect™ and My Health Manager – KP's EHR. She has published on this area and lends her expertise to various organizations within the health care industry. She served on the IOM committee on Health IT and Patient Safety. She also co-authored Kaiser Permanente's Blue Sky Vision, which served as a visionary roadmap of Kaiser Permanente's transformation to a more patient-centered care delivery system with health information technology.

Before joining Kaiser, Terhilda did economic modeling for the European Economic Community and others. She earned an Engineering degree in Operations Research – Princeton University and an MPH in Biostatistics – University of California, Berkeley.

Andrew Gettinger, MD, is the Chief Medical Information Officer (CMIO) at the Office of the National Coordinator of Health IT, professor of anesthesiology and adjunct professor of computer science, Dartmouth College & the Geisel School of Medicine at Dartmouth. He was formerly the CMIO for Dartmouth-Hitchcock and Associate Dean for Clinical Informatics at Geisel. Gettinger has extensive experience in the field of health information technology. He led the development of an electronic health record (EHR) system at Dartmouth and subsequently was the senior physician leader during Dartmouth's transition to a vendor-based EHR. Gettinger's clinical practice and research has been

focused both on anesthesiology and critical care medicine, and on information technology as it applies generally to health care. He founded the clinical informatics group at Dartmouth. He has been an active participant in the policy debates regarding patient privacy at both the state and federal level testifying before the Senate HELP Committee and participating as a member of the NH Legislative Taskforce on Privacy. He recently completed service in Senator Orrin G. Hatch's office as a Robert Wood Johnson Health Policy Fellow. Currently, in addition to his role of CMIO at ONC he is the Director (acting) of the Office of Clinical Quality and Safety.

Gettinger received his AB from Dartmouth College and his MD from Dartmouth Medical School. He trained at the Hartford Hospital, Boston Children's Hospital, and Dartmouth-Hitchcock Medical Center in anesthesiology, pediatric anesthesiology, and critical care medicine. He is board certified in anesthesiology, critical care medicine and was one of the inaugural group of physicians certified in clinical informatics by the American Board of Preventive Medicine in 2013.

Robert C. Giannini, BS, NHA, CHTS – IM/CP, is a Patient Safety Analyst and Consultant at ECRI Institute. He has held roles as a Patient Safety Officer and Nursing Home Administrator at a variety of facilities. Giannini is a Certified Healthcare Technology Specialist (CHTS) as an implementation manager and clinician/practitioner consultant. He has had responsibility for providing Patient Safety and Quality Improvement leadership for Medication Safety Initiatives and consultative services to the Department of Pharmacy, Emergency Trauma Center, Geriatric and Neurosciences Service Lines. Giannini has over 25 years' experience in the areas of administration, patient safety, quality and risk management, performance improvement, health information technology, regulatory affairs and accreditation, medication safety and service line development.

Theodore Giovanis, FHFMA, MBA, is the President and Founder of the Jayne Koskinas Ted Giovanis Foundation for Health and Policy and provides overall direction for the Foundation's activities. Mr. Giovanis' work experiences include work in government relations, health policy development, and management of health care organizations covering nearly four decades. He has been involved in the development of many Medicare regulatory and legislative policy changes such as the creation of the Medicare Geographic Classification Review Board and Section 508 Reclassifications. Mr. Giovanis was also solely responsible for the identification and prosecution of the rural floor budget neutrality issue which resulted in a multibillion-dollar settlement for hospitals nationally.

Omar Hasan, MBBS, MPH, MS, is Vice President for Improving Health Outcomes at the American Medical Association (AMA) where he is responsible for leading a trans-disciplinary team in developing and implementing the AMA's national strategy for improving health outcomes and curbing cost growth for a select group of high-impact medical conditions. Previously, he spent more than a decade practicing internal medicine and leading quality improvement and patient safety initiatives across diverse healthcare settings, including medically underserved communities and academic health systems. He is fellowship trained in health services research from Harvard Medical School and in quality improvement from the Institute for Healthcare Improvement and holds master's degrees in healthcare management and policy and clinical epidemiology from Harvard School of Public Health.

Christoph Lehmann, MD, is Professor for Pediatrics and Biomedical Informatics at Vanderbilt University. He conceived and launched the journal *Applied Medical Informatics*, devoted to original research and commentary on the use of computer automation in the day-to-day practice of medicine and he served as the Editor-in-Chief since its inception. In 2009, he co-edited *Pediatric Informatics*, the first textbook on this subject.

Dr. Lehmann served on the board of the American Medical Informatics Association from 2008 to 2013 and served two terms as the organization's secretary. In 2010, he was inducted as a fellow into the American College of Medical Informatics, in 2014 he was elected to the American Pediatric Society, and in 2012 he became a Vice President of the International Medical Informatics Association in charge of the IMIA Yearbook.

In 2010, Dr. Lehmann was appointed Medical Director of the Child Health Informatics Center for the American Academy of Pediatrics, where he was involved in developing the Model Pediatric EHR Format. Dr. Lehmann serves on the federal Health IT Policy Committee and as the chair of the Examination Committee of the American Board of Preventive Medicine, Subcommittee for Clinical Informatics.

Dr. Jeffrey C. Lerner has served since 2001 as ECRI Institute's President and Chief Executive Officer. ECRI Institute (formerly the Emergency Care Research Institute, founded in 1968) is the world's largest independent nonprofit health technology assessment organization that researches the best approaches to improving patient care. It is designated as an Evidence-based Practice Center (EPC) by the U.S. Agency for Healthcare Research and Quality (AHRQ) and is listed as a Patient Safety Organization (PSO) by the U.S. Department of Health and Human Services. ECRI Institute maintains a full-time staff of 400 in offices in North America, Europe, Middle East, and Asia Pacific. Six vice presidents report to the president.

Prior to this, he held the position of Vice President for Strategic Planning for 17 years. He played the key role in setting the course for ECRI Institute's transition from its origins as a medical device evaluation laboratory to a broader health research organization that assesses clinical procedures and drug therapies in addition to medical devices, worldwide.

He has conceived of, secured funding for, and implemented numerous programs in technology assessment. For example, he was the first Center Director of ECRI Institute's Evidence-based Practice Center (EPC) under the U.S. Agency for Healthcare Research and Quality (AHRQ), and Coordinator of the Technical Expert Panel of the National Guideline Clearinghouse™ (a project sponsored by AHRQ in cooperation with the American Medical Association and the American Association of Health Plans). He also served as a member of the Medicare Coverage Advisory Committee (MCAC) until 2003 and is currently on the Advisory Board of the U.S. Cochrane Collaboration Center.

Dr. Lerner maintains a special interest in assistive technology for the disabled and has served as principal investigator on projects for the U.S. Department of Transportation and the Easter Seals Society. He was the first Director of ECRI Institute's Center for Healthcare Environmental Management™, which offers programs worldwide. He developed ECRI Institute's annual technology assessment educational conference. In 1992, the Society for Strategic Healthcare Planning and Management of the Hospital Association of Pennsylvania selected him for the Dorinson Award.

Dr. Lerner was a member of the Technical Board of the Milbank Memorial Fund in New York and is a member of the United States Pharmacopeial Convention in Rockville, Maryland. He serves on the Board of Directors of the Philadelphia Academies, Inc., a program for high school students living in poverty areas and is a former President of the Board of the Health Strategy Network, a society of healthcare planners and managers. He is an associate editor of the *Journal of Ambulatory Care Management*. He is an Adjunct Senior Fellow of the Leonard Davis Institute of Health Economics of the University of Pennsylvania and a member of the Committee on Advocacy and Public Policy (CAPP) of AcademyHealth. Dr. Lerner is on the Board of the Life Sciences Congress in Philadelphia, and is also a member of the National Advisory Council for the California Health Benefits Review Program (CHBRP).

Over the past 31 years, Dr. Lerner made major presentations to government agencies and professional organizations worldwide and has written articles such as "Case Studies in Forecasting For innovative Technologies: Frequent Revisions Improve Accuracy", published in *Health Affairs* in February 2015, "The Case for a National Patient Library™" which appeared in the October 2010 issue of *Health Affairs* and "The Consequences of Secret Prices: The Politics of Physician Preference Items," also published in *Health Affairs* in November 2008. Dr. Lerner has authored editorials, book chapters, and book reviews, such as the *Journal of Legal Medicine's* Book Review Essay "Rescuing Science from Politics, Regulation and the Distortion of Scientific Research," edited by Wendy Wagner and Rena Steinzor. Dr. Lerner also reviews for journals such as *JAMA*, *Health Affairs*, the *Journal of General Internal Medicine* and the *Journal of Clinical Orthopaedics and Related Research*.

Dr. Lerner received his M.A., M.Phil. and Ph.D. from Columbia University, where he was awarded three University President's Fellowships and other honors. His B.A. is from Antioch College, and his business training is from the Wharton School. He also studied abroad at St. Andrew's University, Scotland. Dr. Lerner is a graduate of Stuyvesant High School, New York.

Trish Lugtu, B.S., CPHIMS, CHP, is the Associate Director of Research at MMIC Insurance Inc., a Constellation company. Trish leads data analytics initiatives for medical professional liability claims to uncover patient safety learnings. She also oversees the Constellation Patient Safety Research Grants program. With a deep background in health IT, Trish serves as the health IT safety subject matter expert for Constellation. Constellation is a growing partnership of mutual liability insurers (MMIC, UMIA, and Arkansas Mutual) and health service companies united to provide health care provider solutions and support. Today, Constellation companies provide coverage for more than 21,000 health care providers and over 600 hospitals and facilities.

Janet Marchibroda, MBA, serves as the director of the Health Innovation Initiative and the executive director of the CEO Council on Health and Innovation at the Bipartisan Policy Center (BPC), following two years serving as the chair of BPC's Health Information Technology (IT) Initiative. The BPC initiative conducts research and collaborates with experts and stakeholders across every sector of health care to develop recommendations that promote innovation and the use of IT to support improvements in the cost, quality, and patient experience of care.

Marchibroda also serves as board member and the initial executive director for Doctors Helping Doctors Transform Health Care, a non-profit, collaborative, social media effort—led primarily by doctors for doctors—to support the transformation of health care, initially through health IT, given the foundational role it plays in improving the quality, safety and efficiency of care.

William M. Marella, MBA, MMI, directs operations and analytics for the ECRI Institute Patient Safety Organization (PSO) and the Pennsylvania Patient Safety Authority (PSA). His articles have appeared in the *Pennsylvania Patient Safety Advisory*, the *Journal of Patient Safety*, the *Joint Commission Journal of Quality and Patient Safety*, *Medicare Patient Management*, *Patient Safety and Healthcare Quality*, and others. In previous positions he worked on the management teams of the Agency for Healthcare Research and Quality’s National Guideline Clearinghouse (NGC) and the National Quality Measures Clearinghouse, and the AHRQ-sponsored ECRI Evidence-based Practice Center (EPC).

Kalyan S. Pasupathy, PhD, is an Associate Professor of Health Care Systems Engineering in Mayo Clinic’s Department of Health Sciences Research. He is the Scientific Director for the Clinical Engineering Learning Lab (CELL) within the Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery. CELL is a research environment embedded in a practice setting to conduct research & development and rapid-deploy findings and best practices by leveraging technology to improve care delivery.

Professor Pasupathy is an expert in systems engineering and health informatics and is focused on both, advancing the science and translating knowledge to improve care delivery demonstrated through his academic and practice leadership roles. He has over 15 years of experience leading and pioneering efforts in developing analytics models/algorithms and designing and improving complex care delivery systems. He has received awards, created inventions, serves as a reviewer for several journals and for federal agencies, and is frequently sought to consult or talk internationally.

Professor Pasupathy has Masters and Doctoral degrees, both in Industrial & Systems Engineering from Virginia Tech. He was on the faculty in Health Management & Informatics in the University of Missouri’s School of Medicine and worked with organizations such as American Red Cross, British Red Cross and Aurora Health Care. Notably, the work for the American Red Cross has impacted practice with “savings of hundreds of thousands of dollars per year”, and was later cloned for the British Red Cross. His team was awarded the *Goodeve Medal* for the most outstanding contribution to the philosophy, theory, practice of operations research in 2007 by the Operations Research Society in London, UK.

He has conducted several funded projects and has published over 35 peer-reviewed articles and a book in Health Informatics. Professor Pasupathy was recognized as a *New Face of Engineering* in 2008 by the Engineers Week Foundation based on innovation, contributions to engineering and significant impact on public welfare.

Lorraine Possanza, DPM, JD, MBE, is a Senior Patient Safety, Risk, and Quality Analyst and Health IT Patient Safety Liaison at ECRI Institute. She serves as the project manager for the *Partnership for Health IT Patient Safety*. Lorraine received her DPM from Temple University, School of Podiatric Medicine,

followed by a surgical residency, practice at the VA Medical Center, and private practice for 20 years and is board certified in podiatric orthopedics and wound care. Dr. Possanza received her law degree in 2000, became a registered patent attorney in 2001 and practiced in the areas of medical malpractice defense and healthcare operations and regulations until 2009. After leaving her practice, and before transitioning to the practice of law, she served as the Director of Risk Management at a 400-bed teaching hospital. Dr. Possanza received her Master of Bioethics from the University of Pennsylvania in 2008, and participated in the state's update on advanced care directives. Dr. Possanza is a member of Temple University, School of Podiatric Medicine's Foundation Board, has authored a number of publications, and has delivered a number of presentations on both medicine and law.

Peter Pronovost, MD, PhD, is a practicing anesthesiologist and critical care physician who is dedicated to finding ways to make hospitals and healthcare safer for patients. In June 2011, he was named director of the new Armstrong Institute for Patient Safety and Quality at Johns Hopkins, as well as Johns Hopkins Medicine's senior vice president for patient safety and quality.

Dr. Pronovost has developed a scientifically proven method for reducing the deadly infections associated with central line catheters. His simple but effective checklist protocol virtually eliminated these infections across the state of Michigan, saving 1,500 lives and \$100 million annually. Moreover, the checklist protocol is now being implemented across the United States, state by state, and in several other countries. *The New Yorker* magazine says that Dr. Pronovost's "work has already saved more lives than that of any laboratory scientist in the past decade."

Pronovost has chronicled his work to improve patient safety in his book, *Safe Patients, Smart Hospitals: How One Doctor's Checklist Can Help Us Change Health Care from the Inside Out*. In addition, he has written more than 400 articles and chapters related to patient safety and the measurement and evaluation of safety efforts. He serves in an advisory capacity to the World Health Organization's World Alliance for Patient Safety.

Dr. Pronovost has earned several national awards, including the 2004 John Eisenberg Patient Safety Research Award and a coveted MacArthur Fellowship in 2008, known popularly as the "genius grant." He was named by *Time* magazine as one of the world's 100 "most influential people" for his work in patient safety. He regularly addresses Congress on the importance of patient safety, prompting a report by the U.S. House of Representatives' Committee on Oversight and Government Reform strongly endorsing his intensive care unit infection prevention program.

Dr. Pronovost previously headed Johns Hopkins' Quality and Safety Research Group and was medical director of Hopkins' Center for Innovation in Quality Patient Care. Both groups, as well as other partners throughout the university and health system, have been folded into the Armstrong Institute.

Jeanie Scott (MT (ASCP), CPHIMS), Ms. Scott's career began as a Medical Technologist which provided a unique opportunity to learn about workflow principles within and across sections and shift differentials. Ms. Scott's management of the laboratory information systems championed the application and integration of Information Technology (IT) tools and processes to support laboratory workflow.

Expanded her career, as a health IT specialist, Ms. Scott worked on projects supporting the national implementation of clinical information applications, integral components of VA's Veterans Health Information Systems Technology Architecture (Vista). Among the clinical applications Ms. Scott played a role in implementing was the VA's widely used Computerized Patient Record System (CPRS) electronic health record (EHR). Ms. Scott's expertise was critical in VA workgroup efforts to define and implement the VA's health IT patient safety program. She worked with the National Center for Patient Safety (NCPS) to develop key reporting, notification, and analysis processes. Ms. Scott is currently the Director, Informatics Patient Safety program.

Mark J. Segal, PhD, is Vice President of Government and Industry Affairs for GE Healthcare IT. Working closely with GE Healthcare's Washington Office and Standards Team, Mark directs participation in various government and industry groups, helps define and drive advocacy agendas, and coordinates responses to regulations and legislation.

Mark is a member of eHI's Leadership Council and Chair of its Policy Steering Committee. He is past Vice Chair and Chair Emeritus of the HIMSS Electronic Health Record Association (EHRA), past Chair of the EHRA Public Policy Leadership Workgroup, past Chair of the HIMSS Government Relations Roundtable, past member of the HIMSS Public Policy Committee and member of the HIMSS Quality, Cost, and Safety Committee, member of the AMIA Industry Advisory Council and Public Policy Committee, and member of the WEDI Industry Affairs Committee. Mark has been appointed to the National Quality Forum's (NQF's) HIT Patient Safety Expert Panel and is a member of the HL7 Advisory Council. Mark was also appointed to the S&I Framework Task Force of the Health IT Standards Committee. Mark was a member of the Task Force on Delivery System Reform and Health IT of the Bipartisan Policy Center and serves on the Center's Collaborative on Health IT and Delivery System Reform.

Mark has spoken, published, and used social media extensively to communicate on a variety of healthcare topics. He has a BA in political science from the University of Rochester and a PhD in political science from the Massachusetts Institute of Technology.

Hardeep Singh, MD, MPH, is Chief of the Health Policy, Quality & Informatics program at the VA Health Services Research Center for Innovations based at the Michael E. DeBakey VA Medical Center and Baylor College of Medicine, Houston. He leads a portfolio of multidisciplinary patient safety research, largely funded by the VA and AHRQ, focusing on two related areas: improving the use of health IT and reducing diagnostic errors in health care. In 2012, he received the AcademyHealth Alice S. Hersh New Investigator Award for high impact research and in 2014, received the prestigious Presidential Early Career Award for Scientists and Engineers (PECASE) from President Obama for his pioneering work in the field.

Hardeep's work has informed several national patient safety initiatives and policy reports, including those by the AMA, AHRQ, and IOM and was foundational for developing national VA policy on test results communication to providers and patients. He also co-developed the "ONC SAFER Guides" for safe and effective electronic health record use and was elected as a Fellow of the American College of Medical Informatics for significant and sustained contributions to biomedical informatics. In 2013, he was nominated by the HHS Secretary to the federal Clinical Laboratory Improvement Advisory

Committee, which advises the CDC, FDA and CMS. He is currently co-chairing the National Quality Forum's Health IT Patient Safety Committee and serving as an Associate Editor of the journal *Diagnosis*.

You can learn more about his work at <http://www.houston.hsrdr.research.va.gov/bios/singh.asp> and @HardeepSinghMD

Dean Sittig, PhD, Dr. Dean Sittig's research interests center on the design, development, implementation, and evaluation of all aspects of clinical information systems. In addition to Dr. Sittig's work on measuring the impact of clinical information systems on a large scale, he is working to improve our understanding of both the factors that lead to success, as well as, the unintended consequences associated with computer-based clinical decision support and provider order entry systems. Dr. Sittig has co-authored several books and his most recent published this year is, "SAFER Electronic Health Records: Safety Assurance Factors for EHR Resilience. Others he has co-authored includes an award-winning book on clinical decision support entitled, "Improving Outcomes – A Practical Guide to Clinical Decision Support Implementation"; "Clinical Information Systems: Overcoming Adverse Consequences"; and "Electronic Health Records: Challenges in Design and Implementation".

Ronni Solomon JD, serves as Executive Vice President and General Counsel for ECRI Institute, a nonprofit agency dedicated to promoting the highest standards of safety, quality, and cost-effectiveness in healthcare. She guides the development, execution, and evaluation of the Institute's mission and vision and has overall responsibility for the Institute's legal matters, for its patient safety, quality and risk programs and initiatives, and for its education center. Her work spans many of the Institute's research, consultative, publishing, and educational initiatives for preventing patient injuries and deaths. She serves as ECRI Institute's executive sponsor for major projects in both the public and private sector, including projects for the Agency for Healthcare Research and Quality (AHRQ), the Centers for Medicare and Medicaid Services (CMS), the Office of the National Coordinator for Health Information Technology (ONC), the Health Resources and Services Administration (HRSA), and state agencies, as well as for programs for hospitals and health systems, insurance carriers, and other healthcare provider organizations.

Ms. Solomon has developed numerous initiatives to improve safe and effective care, such as ECRI Institute PSO, a federally-listed patient safety organization that works with over 1,000 provider organizations to make care safer. She recently convened the *Partnership* for Health IT Patient Safety, a multi-stakeholder collaborative seeking to improve health IT safety within a nonpunitive learning environment by analyzing adverse events, near misses, and hazards and disseminating best practices. She has authored numerous publications on a variety of healthcare safety issues.

Paul Tang, MD, MS, is Vice President and Chief Innovation and Technology Officer at the Palo Alto Medical Foundation (PAMF), and is Consulting Associate Professor of Medicine at Stanford University. Dr. Tang directs the David Druker Center for Health Systems Innovation and also oversees PAMF's electronic health record (EHR) system and its integrated personal health record system. He has dedicated his professional career to innovative uses of health information technology (HIT), empowering patients through HIT, improving quality measurement, and working on public policy that enhances health and health care. Dr. Tang is an elected member of the Institute of Medicine (IOM) and chaired an

IOM patient-safety committee. He is Vice Chair of the federal Health Information Technology Policy committee (HITPC), and Chair of its Meaningful Use workgroup. Dr. Tang chairs the National Quality Forum's Health Information Technology Advisory Committee and co-chairs the Quality Alliance Steering Committee's Measurement Implementation Strategy subcommittee. He has served as board chair for several health informatics professional associations, including the American Medical Informatics Association. Dr. Tang received his B.S. and M.S. in Electrical Engineering from Stanford University and his M.D. from the University of California, San Francisco. He completed his residency in Internal Medicine at Stanford University and is a Board-certified practicing Internist.

Michael S. Victoroff, MD, Dr. Victoroff is President of Recall, Inc., a clinical informatics consulting firm. He is also the Risk Management Consultant for Health Information Technology at COPIC, Inc.; Chief Medical Officer at Lynx Collaborative Care Network; and Medical Advisor at Amara Healthcare Analytics. He was in the first group of physicians to become board certified in Clinical Informatics; he is also board certified in Family Medicine.

Dr. Victoroff was named "Family Physician of the Year" by the Colorado Academy of Family Physicians in 1996. He practiced family medicine and obstetrics for 19 years before becoming a Medical Director for Aetna in 1997. From 2002 to 2006 he worked as an investigator for the University of Colorado, Department of Toxicology on cases of suspected chemical exposures; in 2005, his group published a landmark paper applying principles of evidence-based medicine to toxicology litigation. He completed a fellowship in biomedical ethics, and founded or served on numerous ethics committees, including the American Academy of Family Physicians'. He has been a member of the Colorado Governor's Commission on Life and the Law and the Judicial Affairs Committee of the Colorado Medical Society. He has chaired the Colorado Perinatal Care Council and the Colorado Medical Society Committee on Medical Informatics. He is an Associate Clinical Professor at the University of Colorado, School of Medicine.

In 1989, he developed ChartR®, an electronic medical record system for ambulatory practices, and sold it commercially for 8 years. As Risk Management Consultant for COPIC, he developed *A Taxonomy of Medical Error*, a coding system for patient safety events that has been used in Federally-funded patient safety research. He was a founding member of the National Patient Safety Foundation, and has worked with COPIC, the ECRI Institute, the Canadian Medical Protective Association, State Volunteer Mutual Insurance Company and other organizations to analyze the safety and effectiveness of health information technology. In 2013, his team at Amara Health Analytics launched *Clinical Vigilance™ for Sepsis*, an expert system to assist in the early detection and treatment of sepsis in hospitalized patients.

At Lynx, his team provides professionally certified record summaries to patients with rare or complex medical conditions. He developed processes for abstracting enduring clinical information from raw medical records; a system of confidence-scoring for clinical assessments; and *precision phenomics* – methods for reviewing accuracy, coherence and utility of archival patient information.

Dr. Victoroff's publications include numerous articles on bioethics, medical computing, managed care, medical errors and patient safety. He is a nationally recognized speaker on safety and liability related to

HIT, and a member of ASTM Technical Committee E31 on Healthcare Informatics, which is responsible for standards for Electronic Health Records and the Continuity of Care Record. He is a graduate of St. John's College (Annapolis), Baylor College of Medicine (Houston) and did his residency in Family Medicine at the University of Rochester.

Diana Warner, MS, RHIA, CHPS, FAHIMA, currently serves as director, HIM Practice Excellence AHIMA. In her role, Ms. Warner provides professional expertise EHRs, privacy, security and confidentiality, and HIM operations in both hospitals and physician practices. Ms. Warner focuses on the advancement and use of HIT standards for HIM practices, HIM best practices, information governance and she represents AHIMA in a number of industry standards groups. She provides industry analysis and advocacy on current and emerging issues that impact health information management.

Ms. Warner has 20 years of experience in HIM, working in various healthcare settings including physician practice and acute care hospitals. Prior to joining AHIMA, she was employed as director of HIM at the University of Minnesota Physicians. Ms. Warner holds a Master of Science in Health Services Administration from the Columbus State University in Georgia. She provides her expertise to AHIMA members, the media, and outside organizations through articles publications, and presentations.

Feliciano Buenviaje Yu, MD, Feliciano "Pele" Yu, Jr., MD, joined St. Louis Children's Hospital (SLCH) as chief medical information officer and medical director of the Washington University Pediatric Computing Facility. He also was appointed an assistant professor of pediatrics at Washington University School of Medicine and maintains a clinical practice with the department of pediatrics' division of hospitalist medicine.

Prior to joining SLCH, Dr. Yu served as chief medical informaticist at the Children's Hospital of Alabama in Birmingham. His training includes completion of a National Research Service Award postdoctoral fellowship in health services research at the University of Alabama-Birmingham (UAB) Center for Outcomes and Effectiveness Research and Education. He also holds Masters of Science degrees in both health informatics and public health from UAB.

"The common theme across all of my work is helping clinicians make better decisions, provide quality care and improve care delivery processes through the use of health information and communications technology," says Dr. Yu.

Dr. Yu's previous experience also includes practicing primary care pediatrics in South Carolina and pediatric urgent care medicine at the Children's Hospital of Alabama in Birmingham. He received his medical degree from the University of the East RMMC School of Medicine (Philippines), and he completed his pediatric residency training at the Children's Hospital of Wisconsin (Medical College of Wisconsin, Milwaukee).