

Metropolitan Area Medical Informatics Update

July 17, 2007

Pfizer Headquarters
Time Square Conference Room, 4th Floor 219 E 42nd St., NY, NY

A one-day meeting for local and regional healthcare specialists to discuss advances, problems, and opportunities in medical informatics in the New York area.

This event is organized by Columbia University's Department of Biomedical Informatics and Center for Advanced Information Management* and hosted by Pfizer Healthcare Informatics. It is also being supported by The New York Chapter of HIMSS, Medical Informatics New York, and the American Medical Informatics Association (AMIA).

Speakers include representatives from public and community agencies (Mat Kendall, Tom Check), industry (Paul Keckley, Daijin Kim), hospitals/medical centers (Gil Kuperman, Ken Ong), and academia (Ivan Iossifov). The program will consist of invited talks covering various aspects of healthcare/medical/biomedical informatics with clinical, industrial, academic, and public health themes. Presentations will be 30 minutes allowing ample time for questions and discussion.

* A NYSTAR-sponsored Center for Advanced Technology



CENTER for ADVANCED
INFORMATION MANAGEMENT
a New York State Center for Advanced Technology at Columbia University



Schedule

- 9:30 AM Welcome and opening remarks
Steven Labkoff, Pfizer
- 9:45 AM *Primary Care Information Project*
Mat Kendall, New York City Department of Health and Mental Hygiene
- 10:30 AM *Data Exchange in New York City: An Overview of the NYCLIX Project*
Gil Kuperman, New York Presbyterian Hospital/Columbia University
- 11:15 AM Break
- 11:30 AM *Data Exchange between a Regional Homecare Provider, Other Healthcare Providers, and the Patient and Family*
Thomas Check, Visiting Nurse Service of New York
- 12:15 PM Lunch
- 1:00 PM *Text-Mining And Its Applications In Real-Life Biomedical Research*
Ivan Iossifov, Columbia University
- 1:45 PM *Pfizer's Efforts in Understanding How to Leverage Electronic Health Records for Clinical Research*
Daijin Kim, Pfizer
- 2:30 PM Break
- 2:45 PM *Biomedical Informatics in Health System Transformation: Implications for New York*
Paul H. Keckley, Deloitte & Touche
- 3:15 PM *Diffusion of Innovation Theory as Applied to Adoption of Ambulatory Electronic Health Record Health Information Exchange*
Kenneth R. Ong, North Shore - LIJ Health System
- 4:00 PM Closing Remarks and Open Discussion
James J. Cimino, Columbia University

Planning Committee

Randolph C. Barrows, Jr., MS, MD

Assistant Professor of Biomedical Informatics and Medicine, Columbia University

James J. Cimino, MD

Professor of Biomedical Informatics and Medicine, Columbia University

Steven E. Labkoff, MD, FACP

Director, Healthcare Informatics, Pfizer Human Health

Speakers and Abstracts

Mat Kendall, MPH

Primary Care Information Project (PCIP) Director of Operations, Division of Health Care Access and Improvement, New York City Department of Health and Mental Hygiene

Primary Care Information Project

The Primary Care Information Project (PCIP) Taskforce is a bureau in the New York City Department of Health and Mental Hygiene that is dedicated to assisting primary care providers in medically underserved communities in the use health information technology to improve the quality of delivered care. Through a CDC Center of Excellence grant, the PCIP is working to develop public health functionality that can be incorporated into Electronic Health Record (EHR) Systems. The PCIP is planning on assisting over 1,000 New York City Primary Care providers to adopt electronic health record systems with these public health functionalities in the next three years.

Gil Kuperman, MD, PhD

Director of Quality Informatics
New York Presbyterian Hospital
Associate Professor of Biomedical Informatics, Columbia University

Data Exchange in New York City: An Overview of the NYCLIX Project

Patient data is critical for medical decision making. Access to automated clinical data is especially important in emergency departments, where patients may be previously unknown to their care givers, time may be of the essence, and patient acuity might be high. Frequently in emergency settings, relevant patient data are not easily available because the data are stored at another institution; the only way to access these data is through time-consuming manual means.

Regional clinical data interchanges are an emerging technology that allows clinicians taking care of patients to access automated data from remote institutions. Several significant challenges will need to be addressed before such interchange is widespread. This talk will review the motivations for clinical data interchange (with a focus on the emergency setting) and the hurdles that must be addressed to make this technology a reality. The focus will be on one emerging data interchange project in the New York City region -- NYCLIX, the New York Clinical Data Exchange.

Thomas Check, MA

Vice President and Chief Information Officer
Visiting Nurse Service of New York

Homecare Everywhere: Participating in Six RHIO's at Once

As a provider of homecare services to 30,000 patients at any given time throughout New York City and Westchester and Nassau Counties, the Visiting Nurse Service of New York is

participating in several clinical data exchange projects in its service area. VNSNY is the sponsor of NYCHHIP, a HEAL 1 project to exchange clinical data with physicians and with patients themselves, and is a member of five RHIO's funded by HEAL 1 (NYCLIX, New York CareConnect, Bronx RHIO, St. Barnabas, and Brooklyn HIE). This presentation will focus on the dynamics of developing data exchange with patients, physicians, hospitals, and long term care providers in multiple networks concurrently.

Ivan Iossifov, MS

Department of Biomedical Informatics/Center for Computational Biology and Bioinformatics,
Columbia University

Text-Mining and Its Applications in Real-Life Biomedical Research

The immense growth in the volume of research literature and experimental data in the field of molecular biology calls for efficient automatic methods to capture and store information. GeneWays is an integrated system developed at Columbia University that addresses these needs. It analyzes interactions between molecular substances, drawing on multiple sources of information to infer a consensus view of molecular networks that can later be used to tackle real-life biomedical research problems. The possibility of performing computations over an integrated model of a cell promises huge benefits in terms of advancement of biology: we can generate and test completely new hypotheses that were unthinkable in the absence of an integrated model of a molecular network. In this talk I will introduce the GeneWays system and our current efforts in perfecting it. I will also present several projects in which we effectively use the extracted molecular network models.

Daijin Kim, MBA

Associate Director
Pfizer Healthcare Informatics

Pfizer's Efforts in Understanding How to Leverage Electronic Health Records for Clinical Research

The Pfizer Healthcare Informatics group recently completed an assessment of how Electronic Health Records (EHR) and the data they generate can be used to support Pfizer's business units and create strategic opportunities. The project identified 14 specific "use cases" from interviews with over 35 senior leaders associated with clinical research, safety, outcomes research and development. In addition, the project team identified and evaluated the EHR vendors with the greatest functionality and largest installed base from which the needs identified by the interviews could be fulfilled. Fifteen vendors were then surveyed in greater detail to understand their functionalities in the 14 use cases, to identify gaps and opportunities.

Paul H. Keckley, PhD

Executive Director
Deloitte Center for Health Solutions

Biomedical Informatics in Health System Transformation: Implications for New York

A look at the mission of Deloitte's Center for Health Solutions. The approach is to develop practical solutions to systemic issues in the U.S. health system with a focus on innovation, impact, implementation, and insight. Its strategies will incorporate research, eminence building, solution development, and client activities. Also needed are strategic collaborations with professional organizations and academic centers. The goal is to improve quality, reduce demand, develop incentives for changes, and leverage information technology for the key stakeholders: health systems, major health plans, life science-pharma, and government.

Kenneth R. Ong, MD, MPH

Director of Clinical Information Systems
North Shore - LIJ Health System

Diffusion of Innovation Theory as Applied to Adoption of Ambulatory EHR and HIE

Few dispute the value and efficiency of health care information technology. Yet the adoption of the electronic medical record (EMR) and health information exchange (HIE) continue to fall far behind our expectations.

In the Institute of Medicine's first report on the computer-based patient record, an expert panel employed Rogers' diffusion of innovations theory to help explain the barriers to diffusion. Twenty-six years have passed since that seminal report. A national consensus has evolved during the interim but the pace of EMR and HIE adoption is still slow. Re-examining anew the attributes of these technologies and the pertinent external factors can offer strategies to mitigate barriers to adoption, suggest areas to focus development, and raise questions for future research.

Speaker Profiles

Mat Kendall, MPH

Primary Care Information Project Director of Operation
New York City Department of Health and Mental Hygiene

Mat is the Director of Operations for the New York City Department of Health and Mental Hygiene's Primary Care Information Project (PCIP). Prior to working for DOHMH, Mat was the Executive Director of the Indian Health Center of Santa Clara Valley, a federally qualified health center in San Jose, CA. He was responsible for writing a successful 330 New Start grant for the Center as well as leading a capital campaign that allowed IHC to purchase a building and overhaul its information technology infrastructure. Mat has a MPH from Johns Hopkins University and a BA from Haverford College in Pennsylvania.

Gilad J. Kuperman, MD, PhD
Director of Quality Informatics
New York-Presbyterian Hospital

Gil is the Director for Quality Informatics at New York-Presbyterian Hospital in New York City. He leads a strategic planning process at the hospital to determine the optimum use of information technology to improve quality. His research examines the impact of clinical information systems on the cost, quality, safety, and efficiency of medical care. Gil is also the Chairman of the Board of NYCLIX, Inc., the New York Clinical Information Exchange, whose mission is to improve care in the NYC region through the development of a regional data exchange capability. He is the author on over 60 articles related to health information technology. Gil is a faculty member in the Departments of Biomedical Informatics at Columbia University and Public Health at Weill-Cornell Medical College, and he serves on the Board of Directors of the American Medical Informatics Association.



Thomas Check, MA
Vice President and Chief Information Officer
Visiting Nurse Service of New York



Since July 2004, Tom has been CIO at the Visiting Nurse Service of New York, the largest not-for-profit homecare provider in the United States. He oversees a wide array of clinical, financial and business information systems, including extensive clinical information systems that over 2,800 nurses and therapists use on tablet/laptop computers during their daily visits to patients in their homes. Tom also leads initiatives to provide patients with on-line interaction with their own data, as well as clinical data exchange with physicians, hospitals and other long-term care providers. Prior to joining VNSNY, Tom held IT leadership positions at NYU Medical Center and Mount Sinai Medical Center over the course of 19 years. Prior to that he was an IT consultant with Price Waterhouse and financial manager with the City of New York. He holds a MA from the New School University and a BA from Boston College.

Ivan Iossifov, MS
Department of Biomedical Informatics, Center for Computational Biology and Bioinformatics
Columbia University

Ivan is a final year graduate student at the department of Biomedical Informatics at Columbia University. His work focuses on probabilistic methods for analysis of common multi-factorial human diseases, incorporating molecular network models automatically extracted from large corpus of scientific texts. Prior to joining the PhD program at Columbia, Ivan worked in as a software engineer and manager for several



large-scale information systems projects. He holds a Master's degree in computer science from Sofia University.

Daijin Kim, MBA

Associate Director

Pfizer Healthcare Informatics



Daijin is an Associate Director, Healthcare Informatics at Pfizer, Inc. He has over 7 years of experience in the pharmaceutical industry at Pfizer and, formerly, at Bristol Myers Squibb. His various roles have provided him with a rich set of experiences around healthcare information systems, computer and technology implementation, strategy, and project management. Daijin is a member of AMIA, HIMSS, and NCPDP. He is a co-chair of WG15 of NCPDP, an active member of various roundtables at HIMSS, and participates in the eClinical Forum. Daijin has a Bachelor of Arts in Cognitive Science from Vassar College, an MBA from NYU - Stern School of Business, and is currently pursuing his MPH at Columbia - Mailman School of Public Health.

Paul H. Keckley, PhD

Executive Director, Deloitte Center for Health Solutions

Deloitte & Touche USA LLP

Paul is the new executive director of the Deloitte Center for Health Solutions where he provides strategic guidance on the development of Center research and thought leadership. He brings 30 years of experience in academic medicine and the private sector.



Prior to joining Deloitte & Touche USA, Paul served in several key roles at Vanderbilt University: executive director of the Vanderbilt Center for Evidence-based Medicine (VCEBM), Associate Professor at Vanderbilt University School of Medicine, and Associate Professor of Health Management at the Owen Graduate School of Business. Paul was responsible for overseeing many clinical outsourcing ventures involving care team training, clinical information technology, data management, and evidence-based pathway construction and integration. He also was engaged in several joint ventures, including specialty hospitals in the United Kingdom, development of primary care delivery systems in Botswana, partnerships with two Fortune 100 companies pursuing innovative approaches to chronic care management, and others that are in early-stage development.

Before joining Vanderbilt, Keckley was Chairman of the Board of Interdent, a California dental practice management company; chief executive officer of EBM Solutions, a developer of evidence-based guideline software; chief executive officer of Aveta (formerly the IPA

Management subsidiary of PhyCor Inc.), and principal of The Keckley Group, a strategic planning consulting practice that served 1,200 U.S. provider organizations and health plans.

He is active in several societies and editorial boards, and has authored numerous articles and three books. He was profiled by ABC's "20/20," CBS's "60 Minutes," Fox News, CNN, and The Wall Street Journal. He has also been featured as a keynote speaker at several national industry meetings. Paul has testified for state Medicaid Review Committees in Utah and Tennessee on the potential impact of evidence-based standards on enrollee benefits.

Paul received a Bachelor of Arts degree from Lipscomb University, his master's degree and doctorate from Ohio State University, and completed a fellowship in economic policy at Oxford University.

Kenneth R. Ong, MD, MPH, FACP, FIDSA

Director of Clinical Information Systems
North Shore - LIJ Health System



Ken is the editor of a recently published textbook on health information technology, *Medical Informatics: an Executive Primer*. Ken's past projects include developing and implementing the clinical decision support for the ambulatory EMR in the HIV clinic (Epicare) and the hospital pharmacy system (Pharmnet); implementing web-based results review, and physician charge capture (PatientKeeper).

He is the President of the New York State chapter of the Health Information Management and Systems Society (HIMSS); Past President of Medical Informatics New York; a board member of the New York Clinical Information Exchange (NYCLIX); a member of the advisory board of the Doctors Office Quality IT (DOQ-IT) initiative of the Island Peer Review Organization (IPRO); a member of the client advisory board of PatientKeeper; and, a reviewer for the Informatics Review and the International Journal of Medical Informatics.

In addition, he is a senior lecturer at Columbia University's Mailman School of Public Health, and his medical informatics seminar was among the top rated in 2005. He is a previous recipient of the AMDIS Award in Applied Medical Informatics and the Centers for Disease Control Charles C. Shepard Science Award. Ken is a former deputy commissioner in the New York City Department of Health and Mental Hygiene.

Ken is residency-trained and board certified in family practice, internal medicine, and infectious diseases. He is a fellow of the American College of Physicians, the Infectious Disease Society of America, and the New York Academy of Medicine. He received his MPH at Columbia University, MD at Wayne State University, and BS at University of Michigan.

Center for Advanced Information Management

CAT Program

In 1983, New York State established a Center for Advanced Technology (CAT) Program to promote the collaboration between its industry base and its major research institutions. The goal was to facilitate technology transfer and commercialization using the expertise and resources in academia to benefit companies economically.

After 24 years the program continues with 15 CATs at 13 institutions located around the state. Each CAT has a specific technology focus (<http://www.nystar.state.ny.us/cats.htm>) and approach to helping its partner companies. The CAT program is supported by NYSTAR, the New York State Foundation for Science, Technology and Innovation. NYSTAR currently offers a range of programs to help promote the state's technology base.

Center for Advanced Information Management

Columbia University's Center for Advanced Information Management has been a participant in the CAT program since its inception. CAIM's focus is at the intersection of biomedical science, information technology, and biomedical imaging, with the occasional inclusion of other areas of biomedicine and information processing. Its main participating units are the Department of Biomedical Informatics and the Center for Computational Biology and Bioinformatics, both at the medical center (College of Physicians and Surgeons), and the Computer Science Department and imaging group of the Department of Biomedical Engineering, both in the School of Engineering and Applied Science. This broad range of expertise serves CAIM well in allowing for innovative interdisciplinary projects involving specialists from both schools and campuses.

A few of CAIM's industry-focused activities and offerings are -

- 🍎 Grant program for industry co-sponsored research projects
- 🍎 Specialized workforce training courses and seminars
- 🍎 Faculty consulting service, intended mainly for small companies
- 🍎 Affiliates program providing company access to various and flexible benefits
- 🍎 Technology Forums featuring programs with a focus on areas of industry interest
- 🍎 External Advisory Board with members from a wide range of companies
- 🍎 Access to other NYSTAR development programs (funding, technology/legal services, etc.)

For more information, visit www.cat.columbia.edu or call 212.305.2944.

Pfizer Healthcare Informatics is a member of the Columbia University Department of Biomedical Informatics Affiliates Program. Dr. Steven Labkoff (Director, Healthcare Informatics, Pfizer Human Health) is a charter member of the CAT External Advisory Board. Today's event was, in large part, made possible by the close association and working relationship between DBMI, CAT and Pfizer Healthcare Informatics.

Notes: