AMERICAN MEDICAL INFORMATICS ASSOCIATION

Equips You with Informatics Knowledge.

Continuing Education Credit

16.5 CATEGORY 1 CME CREDITS & NURSING CREDITS AVAILABLE

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NETEZZA
Are You Ready for Active Duty in Informatics?
American Medical Informatics Association (AMIA) Prepares You!

CMIO BOOT CAMP
“Achieving Meaningful EHR Use”
Sept. 29—Oct. 2, 2010

CMIOs in the pilot program gave AMIA Boot Camp high marks:
- Earn 20.25 Category 1 CME Credit Hours.
- Gain knowledge of best practices central to full optimization of EHRs.

Register at
www.amia.org/primary-links/cmiobootcamp
Spaces are limited for this executive leadership program.

“High level of instructor knowledge, competence, and experience”

“Interactive focus with practical exercises relevant to my job; ability to network with peers and leaders in the field.”

AMIA 10x10™
www.amia.org/e-learning

GOAL: Train 10,000 Informatics Specialists in 10 Years
Dear Colleagues and Friends,

Welcome to the inaugural meeting of AMIA Now!, the American Medical Informatics Association’s (AMIA) turn-key solution to your pressing and current need for practical, actionable knowledge and information on a variety of topics related to the fast-moving professions within informatics: Public Health Informatics, Clinical Research Informatics, Organizational Transformation, and Clinical Informatics. Over the next two+ days together, we will cover all the hot topics: REDCap, i2b2, Meaningful Use, Secondary Use of Patient Data, Natural Language Processing, and much more. Thank you for coming!

This is a particularly important meeting as informatics is taking a front-and-center position on the national healthcare scene and generating more interest and activity than ever before. A new generation of professionals needs to take notice as they plan their careers in health care, while senior generations are perhaps eyeing the next wave of health data management and digital health advancements with some degree of reticence. That said, we AMIA Now! participants are riding the peak wave of positive change in health care, and need to help others become more familiar and knowledgeable about informatics, too. Report what you learn here to your colleagues, your students, your mentors, and your mentees. Invite them to join you at the next AMIA meeting. (See inside covers of the program for more details.) If you aren’t a member of AMIA, consider joining AMIA to stay abreast of educational tools and updates, research, and legislative and regulatory developments in the informatics specialty.

I hope this meeting gives you opportunities to meet new peers to add to your network of informatics professionals and to gain greater understanding of topics that will help you do your job better, teach better, and handle future challenges in your healthcare environment better.

Please introduce yourself to me—this meeting is about making connections—with new material, with new people, and with AMIA, your professional home! And when you say hello, please let me know what worked best for you at this meeting, and whether you would likely attend one similar to it next year, to stay current and connected to the growing knowledge base that is informatics.

With warm regards,

Kevin Johnson, MD, MS, FACMI
Chair, Scientific Program Committee
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 am – 8:00 am</td>
<td>Continental Breakfast</td>
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<td>7:00 am – 5:00 pm</td>
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<tr>
<td>8:00 am – 9:30 am</td>
<td>Opening Plenary Session</td>
<td>Eucalyptus/Honeysuckle</td>
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<td>(S01) REDCap – Research Electronic Data Capture</td>
<td>Acacia</td>
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<td>(S02) NLP 101: Making Sense of EMR Text (Part 1)</td>
<td>Eucalyptus</td>
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<td>(S03) Public Health Informatics Standards: Where are we, Where do we need to be and How do we get there?</td>
<td>Honeysuckle</td>
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<td>(S04) CONNECTing the Public and Private Sector Healthcare Communities</td>
<td>Bougainvillea</td>
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<td>(S05) HIT System Lifecycle: Proven Project Management Methods Workshop (Part 1)</td>
<td>Copperwood</td>
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<td>(S06) Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful Use (Part 1)</td>
<td>Desert Willow</td>
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<tr>
<td>11:15 am – 12:15 pm</td>
<td>Concurrent Sessions</td>
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<td>(S07) REDCap- Research Electronic Data Capture (Part 2)</td>
<td>Acacia</td>
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<td>(S08) NLP 101: Making Sense of EMR Text (Part 2)</td>
<td>Eucalyptus</td>
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<td>(S09) Beginning with the End in Mind- Consumer Health Informatics to Enhance Functional Health Literacy</td>
<td>Honeysuckle</td>
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<td>(S10) The Future Role of Health Information Technology in the Medical Home</td>
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<td>(S11) HIT System Lifecycle: Proven Project Management Methods Workshop (Part 2)</td>
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<td>Desert Willow</td>
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<td>12:15 pm – 1:30 pm</td>
<td>Poster Session I and Lunch</td>
<td>Goldwater and Juniper/Ironwood</td>
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<td>1:30 pm – 2:30 pm</td>
<td>Concurrent Sessions</td>
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<td>(S13) Agent-based Modeling for Public Health (Part 1)</td>
<td>Acacia</td>
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<td>(S14) Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and Policy (Part 1)</td>
<td>Bougainvillea</td>
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<td>(S15) i2b2 “How-To”: Installation, Startup, and Extending its Functionality (Part 1)</td>
<td>Eucalyptus</td>
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<td>(S16) Monitoring EHRs to Ensure Safe and Effective Use: What is Required? (Part 1)</td>
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<td>(S17) Beyond the Basics: Building an NLP Application and a Reference Standard with Open Source Tools (Part 1)</td>
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<td>(S18) Terminologies and Meaningful Use: the Role of NLM (Part 1)</td>
<td>Desert Willow</td>
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<td>2:45 pm – 3:45 pm</td>
<td>Concurrent Sessions</td>
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<td>(S19) Agent-based Modeling for Public Health (Part 2)</td>
<td>Acacia</td>
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<td>(S20) Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and Policy (Part 2)</td>
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<td>(S21) i2b2 “How-To”: Installation, Startup, and Extending its Functionality (Part 2)</td>
<td>Eucalyptus</td>
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<td>(S22) Monitoring EHRs to Ensure Safe and Effective Use: What is Required? (Part 2)</td>
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<td>(S24) Terminologies and Meaningful Use: the Role of NLM (Part 2)</td>
<td>Desert Willow</td>
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### Tuesday, May 25 continued

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<thead>
<tr>
<th>Time</th>
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<tr>
<td>3:45 pm – 4:15 pm</td>
<td>Coffee Break</td>
<td>Registration Lobby 1</td>
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<tr>
<td>4:15 pm – 5:45 pm</td>
<td>Semi-plenary Sessions</td>
<td>Eucalyptus</td>
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<td>(S25) Meaningful Reform Achieved through use of HIT: a View from Behind the Scenes at</td>
<td>Honeysuckle</td>
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<td></td>
<td>the HIT Policy Committee (HITPC)</td>
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<td></td>
<td>(S26) Health Information Exchange: What Have We Learned?</td>
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<tr>
<td>5:45 pm – 6:45 pm</td>
<td>Reception</td>
<td>Foxtail/Ironwood</td>
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### Wednesday, May 26

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<th>Time</th>
<th>Event</th>
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<tr>
<td>7:00 am – 8:00 am</td>
<td>Continental Breakfast</td>
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<td>7:00 am – 5:00 pm</td>
<td>Registration Open</td>
<td>Registration Lobby 1</td>
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<tr>
<td>8:00 am – 9:30 am</td>
<td>Plenary: Federal Health IT Policy: View from Inside the Beltway</td>
<td>Eucalyptus/Honeysuckle</td>
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<td>9:30 am – 10:00 am</td>
<td>Coffee Break</td>
<td>Registration Lobby 1</td>
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<tr>
<td>10:00 am – 11:00 am</td>
<td>Concurrent Sessions</td>
<td>Acacia</td>
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<td>(S27) Agent-based Modeling for Public Health (Repeat, Part 1)</td>
<td>Bougainvillea</td>
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<td>(S28) Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and</td>
<td>Copperwood</td>
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<td>Policy (Repeat, Part 1)</td>
<td>Eucalyptus</td>
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<td>(S29) Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful</td>
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<td>Use (Repeat, Part 1)</td>
<td>Honeysuckle</td>
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<td>(S30) CDISC and IHE Progress Report: Linking Research Systems and EHRs</td>
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<td>(S31) Beyond the Basics: Building an NLP Application and a Reference Standard with Open</td>
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<td>Source Tools (Repeat, Part 1)</td>
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<td>(S32) Methods to Compare and Contrast Electronic Health Records in Three Regions of</td>
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<td>West Texas in a Large Health Science Center</td>
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<td>11:15 am – 12:15 pm</td>
<td>Concurrent Sessions</td>
<td>Acacia</td>
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<td>(S33) Agent-based Modeling for Public Health (Repeat, Part 2)</td>
<td>Bougainvillea</td>
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<td>(S34) Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and</td>
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<td>(S35) Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful</td>
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<td>Use (Repeat, Part 2)</td>
<td>Honeysuckle</td>
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<td>(S36) Use of Patient Data for Research and Quality Improvement: Tips, Tricks, Tools,</td>
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<td>Troubles, Triumphs and Other Topics</td>
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<td>(S37) Beyond the Basics: Building an NLP Application and a Reference Standard with Open</td>
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<td></td>
<td>Source Tools (Repeat, Part 2)</td>
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<td>(S38) Project HealthDesign Round 1 - Lessons and Models</td>
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<td>12:15 pm – 1:30 pm</td>
<td>Poster Session II and Lunch</td>
<td>Goldwater and</td>
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<td>Juniper/Ironwood</td>
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### Wednesday, May 26 continued

<table>
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</table>
| 1:30 pm – 2:30 pm | Concurrent Sessions  
(S39) Development of Ontology-anchored Grid-based Data Services to Facilitate Integrative Clinical and Translational Science (Part 1)  
(S40) Standards Influenced Research Information Systems Engineering (Part 1)  
(S41) IQCare: An Open, Freely Available EMR Solution for Hospital and Clinics in Developing Countries  
(S42) National Clinical Decision Support Initiatives: Perspectives on the Current State and a Town Hall about a Way Forward (Part 1)  
(S43) HIT System Lifecycle: Proven Project Management Methods Workshop (Repeat, Part 1)  
(S44) Terminologies and Meaningful Use: the Role of NLM (Repeat, Part 1) | Acacia    |
| 2:45 pm – 3:45 pm | Concurrent Sessions  
(S45) Development of Ontology-anchored Grid-based Data Services to Facilitate Integrative Clinical and Translational Science (Part 2)  
(S46) Standards Influenced Research Information Systems Engineering (Part 2)  
(S47) Evaluating Health Information Systems in Low-resource Countries  
(S48) National Clinical Decision Support Initiatives: Perspectives on the Current State and a Town Hall about a Way Forward (Part 2)  
(S49) HIT System Lifecycle: Proven Project Management Methods Workshop (Repeat, Part 2) | Acacia    |
| 3:45 pm – 4:15 pm | Coffee Break  
(S50) Terminologies and Meaningful Use: the Role of NLM (Repeat, Part 2)  
(S51) Challenges and Future Directions of Public Health Informatics  
(S52) Unmet Challenges in Clinical Research Informatics | Desert Willow |
| 4:15 pm – 5:45 pm | Semi-plenary Sessions  
(S51) Challenges and Future Directions of Public Health Informatics  
(S52) Unmet Challenges in Clinical Research Informatics  
(S53) VIVO: Enabling National Networking of Scientists  
(S54) Lessons Learned from Implementing a Web-based Case Management and Surveillance System for Reportable Diseases in Massachusetts for State and Local Public Health  
(S55) Introduction to Workflow Technology: Representation of Healthcare Processes in a Workflow Editor and their Execution in a Workflow Engine  
(S56) E-Prescribing: Standards and Adoption | Eucalyptus |
| 5:45 pm – 6:45 pm | Reception | Eucalyptus/Honeysuckle |

### Thursday, May 27

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<th>Time</th>
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<tr>
<td>7:00 am – 8:00 am</td>
<td>Continental Breakfast</td>
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<td>7:00 am – 10:00 am</td>
<td>Registration Open</td>
<td>Registration Lobby 1</td>
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</table>
| 8:00 am – 9:30 am | Concurrent Sessions  
(S53) VIVO: Enabling National Networking of Scientists  
(S54) Lessons Learned from Implementing a Web-based Case Management and Surveillance System for Reportable Diseases in Massachusetts for State and Local Public Health  
(S55) Introduction to Workflow Technology: Representation of Healthcare Processes in a Workflow Editor and their Execution in a Workflow Engine  
(S56) E-Prescribing: Standards and Adoption | Acacia    |
| 9:30 am – 10:00 am | Coffee Break | Desert Willow |
| 10:00 am – 11:00 am | Closing Plenary Session: Re-calibrating Biomedical Informatic’s “True North” | Eucalyptus/Honeysuckle |
Scientific Program Committee

Chair:
Kevin Johnson, Vanderbilt University

Public Health Informatics Co-chairs:
John Holmes, University of Pennsylvania
Barbara Massoudi, RTI International

Clinical Research Informatics Co-chairs:
Robert DiLaura, Cleveland Clinic
Paul Harris, Vanderbilt University

Clinical Informatics Co-chairs:
Douglas Bell, RAND Corporation
Jonathan Perlin, Hospital Corporation of America

Organizational Transformation Co-chairs:
Cynthia Gadd, Vanderbilt University
Judy Murphy, Aurora Health Care

Mary Reagan from the University of Maryland School of Nursing serves as the Nurse Planner on the committee for this activity.
AMIA Board of Directors

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Vanderbilt University Medical Center

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Connie J. Delaney
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Kevin B. Johnson
Vanderbilt University Medical Center

Rita Kukafka
Columbia University

Gilad Kuperman
New York Presbyterian Hospital

Blackford Middleton
Partners HealthCare
Harvard Medical School

Justin B. Starren
Marshfield Clinic Research Foundation

Bonnie Westra
University of Minnesota School of Nursing

Ex-Officio Board Members

American College of Medical Informatics
President
Joyce A. Mitchell
University of Utah

Student WG Representative
David C. Kaelber
Case Western Reserve University
Public Health Informatics
Sessions will combine the domains of health information science and technology with the practice and science of public health to assure and to improve the health of populations. Examples include approaches to biosurveillance, emergency preparedness, case reporting, and modeling with easily available tools.

Clinical Research Informatics
Sessions will focus on tools, policies, and educational approaches that advance clinical discovery and health care. Examples include uses of i2b2, software for conducting or tracking research, and opinions or case reports about specific clinical research informatics strategies.

Clinical Informatics
Sessions will concentrate on applications of health information technology in the clinical setting. Examples may include (not exclusive) decision support, usability, EHRs/PHRs, mobile health technologies, and health information exchange.

Organizational Transformation
Sessions will address studies, including case reports, of the implementation and evaluation of informatics in practice settings. Examples may include (not exclusive) approaches to workflow assessment and modeling, training, change management, and iterative health information technology development.

Track Descriptions

Physician Continuing Education
AMIA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. AMIA designates this continuing medical education for up to 16.5 hours of Category 1 credit toward the American Medical Association (AMA) Physician's Recognition Award. Each physician should claim only those hours of credit that he or she actually spends in the educational activity.

Nursing Contact Hours
Nursing contact hours will be provided by the University of Maryland School of Nursing's Office of Professional Development. The total number of hours will be determined by the UMD-SON.

Learning Objectives
Within the themes of Public Health Informatics, Clinical Research Informatics, Clinical Informatics, and Organizational Transformation:

- To improve the skill of attendees in one or more of: (a) tools to assist with data collection and analysis; (b) methods to improve access to public health warnings and surveillance systems; (c) implementing clinical systems; and (d) describing best practices for implementing clinical decision support systems.

- To provide attendees with information in each of these themes that will be relevant and applicable to current issues.

- To promote information exchange among attendees and faculty, through informal networking, poster presentations, and small group exercises.

- Biomedical and health informatics researchers and faculty
- Clinical research staff/CTSA informatics teams
- Physicians, nurses, dentists, pharmacists, and other clinicians
- Public health informaticians/practitioners, consumer advocates, and disease management specialists
- Computer scientists and system developers
- Government officials and policy makers
- Health information and knowledge management professionals
- Health information technology industry professionals and consultants

Disclosure
Before the program, all faculty will disclose the existence of any financial interest and/or other relationships they may have with the manufacturer or manufacturers of any commercial product or products to be discussed during their presentation. This includes any honoraria/expenses, grants, consultant role, speaker's bureau membership, stock ownership, or any other special relationship. AMIA includes a disclosure list with the on-site registration materials.
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<td>8:00 am - 9:30 am</td>
<td>Plenary</td>
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<td></td>
<td><strong>Opening Plenary Session: Brass Tacks and Blue Skies: A Friendly Chat About Serious Thoughts</strong></td>
<td>Room: Eucalyptus/Honeysuckle</td>
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<td><em>Kevin Johnson, Vanderbilt University, AMIA Now! 2010 Program Chair</em></td>
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<td>A set of speakers will provide their reflections based on questions from the audience. This exciting opening session will set the tone for AMIA Now! as a forward-looking meeting that will try to address the relevant issues head on.</td>
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<td>Concurrent Sessions</td>
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<td><strong>S01: REDCap- Research Electronic Data Capture (Part 1)</strong></td>
<td>Room: Acacia</td>
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<td><em>Type: Hands-on; Track: Clinical Research Informatics</em></td>
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<td><em>P. Harris, Vanderbilt University</em></td>
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<td>This hands-on session will focus on the use of REDCap to support data collection and management for clinical and translational research projects. REDCap is a freely available, consortium-based program currently supporting 91 active institutional partners and 5,700 end-user researchers (<a href="http://www.project-redcap.org">www.project-redcap.org</a>). Topics will include technical infrastructure and setup requirements, business models for supporting the research enterprise, end-user training methods, and interesting use cases and ongoing initiatives across the consortium.</td>
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<td><strong>S02: NLP 101: Making Sense of EMR Text (Part 1)</strong></td>
<td>Room: Eucalyptus</td>
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<td><em>Type: Small Group; Track: Clinical Research Informatics</em></td>
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<td><em>J. Denny, H. Xu, Vanderbilt University</em></td>
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<td>This session will give an overview of some natural language processing tools and clinically-useful terminologies (such as the UMLS). The presenters will also include a hands-on workshop with some NLP tools. Finally, the presenters will discuss techniques for deriving electronic phenotypes from text and the strategies to combine different components in the EMR (laboratory data, billing data, and unstructured text).</td>
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**S03: Public Health Informatics Standards: Where are we, Where do we need to be and How do we get there?**  
Type: Small Group; Track: Public Health Informatics

W. Suarez, Kaiser Permanente; A. Orlova, Public Health Data Standards Consortium

The past few years have seen an unprecedented movement towards the adoption and implementation of interoperable standards for health information technology and health information exchanges, including message format, content, vocabulary, transport and privacy and security standards. Public health is one of the areas directly affected by these standards. The purpose of this session is to review the status of standards being in the collection, maintenance, use and exchange of health information for public health purposes, including immunizations, syndromic/disease surveillance, public health laboratory, vital records, and others.

**S04: CONNECTing the Public and Private Sector Healthcare Communities**  
Type: Small Group; Track: Clinical Informatics

V. Sankaran, D. Riley, B. Behlendorf, Department of Health and Human Services

The CONNECT open source software and the CONNECT Community are paving the way for secure health-information exchange among organizations in line with Nationwide Health Information Network (NHIN) standards and governance. CONNECT allows healthcare providers, insurers, federal agencies, states and other health stakeholders to exchange health information with other organizations nationwide. Since its release, the CONNECT program has continued to develop the solution to meet the diverse needs of the 500+ organizations comprising the growing Community. This session will provide an update on CONNECT; an overview of how organizations are using the solution to create health-information exchanges; outline NHIN participation benefits for patients, care providers, payors, states and other stakeholders; detail benefits that a nationwide network of interoperable health IT will provide to citizens; and provide an overview of the CONNECT Community.

**S05: HIT System Lifecycle: Proven Project Management Methods Workshop (Part 1)**  
Type: Hands-on; Track: Organizational Transformation

J. Murphy, Aurora Health Care; C. Gadd, Vanderbilt University

This workshop is designed to give participants an understanding of the HIT System Lifecycle and the essential principles of HIT Project Management. The participants will explore strategies to promote success when implementing EHR systems by examining the relationship between the people, process and technology components of an implementation. Content will focus on implementation phases, tips to impact implementation effectiveness and efficiency, and project management methodology.

**This 2-part session will be repeated on Wednesday**
**S06: Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful Use (Part 1)**

Type: Hands-on; Track: Organizational Transformation

J. Osheroff, Thomson Reuters; R. Greenes, Arizona State University; R. Murphy, Memorial Hermann Healthcare System/University of Texas- Houston

This session will provide hands-on exploration by attendees into success factors for deploying CDS alerts that improve outcomes and address (what is currently known about) meaningful use requirements. AHRQ is providing structured, coded logic statements in a formal template that implementers can further adapt into CDS rules. Attendees will use this template in an exercise to configure locally implementable rules, and discuss successful implementation practices.

This session is designed for clinical information system implementers who have some familiarity with clinical decision support deployment (or principles) and would like a deeper, interactive, hands-on exposure to the topic.

**This 2-part session will be repeated on Wednesday**

<table>
<thead>
<tr>
<th>11:15 am - 12:15 pm</th>
<th>Concurrent Sessions</th>
</tr>
</thead>
</table>

**S07: REDCap- Research Electronic Data Capture (Part 2)**

Type: Hands-on; Track: Clinical Research Informatics

P. Harris, Vanderbilt University

This hands-on session will focus on the use of REDCap to support data collection and management for clinical and translational research projects. REDCap is a freely available, consortium-based program currently supporting 91 active institutional partners and 5,700 end-user researchers (www.project-redcap.org). Topics will include technical infrastructure and setup requirements, business models for supporting the research enterprise, end-user training methods, and interesting use cases and ongoing initiatives across the consortium.

**S08: NLP 101: Making Sense of EMR Text (Part 2)**

Type: Small Group; Track: Clinical Research Informatics

J. Denny, H. Xu, Vanderbilt University

This session will give an overview of some natural language processing tools and clinically-useful terminologies (such as the UMLS). The presenters will also include a hands-on workshop with some NLP tools. Finally, the presenters will discuss techniques for deriving electronic phenotypes from text and the strategies to combine different components in the EMR (laboratory data, billing data, and unstructured text).
This session focuses on identifying and providing examples of research where enhancing functional health literacy is a primary outcome measure of interventions in the area of consumer health informatics. Functional health literacy provides a new, alternative concept of health literacy and focuses on how persons integrate health information within their lives and immediate environment. While traditional health literacy focuses on the success of communication to reduce and better manage patient cognitive deficits, functional health literacy emphasizes how information assists people to live healthier lives, provide care to others, and seek health information. The session will note how functional health literacy provides a new conceptual framework as well as an array of pragmatic measures that can be used to assess the immediate impact of interventions on families, patients, and caregivers—especially within medically underserved audiences.

[This panel was assembled by the Consumer Health Informatics Work Group.]

The medical home is one of the most exciting approaches for improving care, and most of the implementations of it have relied in large part on the electronic health record (EHR), but the EHRs of today only begin to scratch the surface of what is needed by advanced medical homes. Dr. Bates will describe the medical home movement, and the current requirements to meet NCQA criteria for a level 3 medical home. He will then go on to describe 7 key dimensions for HIT in the medical home, and what developments in those dimensions could make a major difference to medical homes in improving quality, safety and efficiency of care.

This workshop is designed to give participants an understanding of the HIT System Lifecycle and the essential principles of HIT Project Management. The participants will explore strategies to promote success when implementing EHR systems by examining the relationship between the people, process and technology components of an implementation. Content will focus on implementation phases, tips to impact implementation effectiveness and efficiency, and project management methodology.
**S12: Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful Use (Part 2)**

Type: Hands-on; Track: Organizational Transformation

*J. Osheroff*, Thomson Reuters; *R. Greenes*, Arizona State University; *R. Murphy*, Memorial Hermann Healthcare System/University of Texas- Houston

This session will provide hands-on exploration by attendees into success factors for deploying CDS alerts that improve outcomes and address (what is currently known about) meaningful use requirements. AHRQ is providing structured, coded logic statements in a formal template that implementers can further adapt into CDS rules. Attendees will use this template in an exercise to configure locally implementable rules, and discuss successful implementation practices.

This session is designed for clinical information system implementers who have some familiarity with clinical decision support deployment (or principles) and would like a deeper, interactive, hands-on exposure to the topic.

12:15 pm – 1:30 pm **Poster Session 1 and Lunch**

**Track: Clinical Informatics**

Preoperative Hepatic Risk Assessment Decision Support (Board #1)
T. Adam, University of Minnesota

Standardizing Data Dimensions of Healthcare Data Warehouses (Board #2)
R. Biehl, Data-Oriented Quality Solutions

An E-Learning Cocktail: A Game Engine, a Hint of Wiki, Some Forms, SCORM and an LMS to Hold It All Together (Board #3)
C. Blesius, Massachusetts General Hospital; P. Moreno-Ger, Universidad Complutense de Madrid

Measurement of Utilization of an Installed EHR (Board #4)
P. Dullabh, E. Babalola, A. Moiduddin, National Opinion Research Center (NORC); J. Sorace, Assistant Secretary for Planning and Evaluation

The Importance and Accuracy of Documentation in Structured Fields (Board #5)
P. Gawade, University of Massachusetts- Amherst; F. Bsat, A. Healy, M. Plevyak, G. Markenson, Baystate Medical Center

World Trade Center Medical Monitoring and Treatment Program: Impact of Patient Data Management System Usability on Clinical Workflow (Board #6)
M. Kim, D. Mohrer, B. Trusko, P. Landrigan, P. Elkin, Mount Sinai School of Medicine
Assessment of the Clinical Knowledge Management Capabilities of Nine Commercially-available Electronic Health Records (Board #7)
S. Meltzer, Partners HealthCare; D. Sittig, University of Texas Health Sciences Center; A. Wright, Brigham & Women’s Hospital; B. Middleton, Partners HealthCare

eMeasures NOW!: Web Compliant XML Expression of Endorsed Clinical Quality Measures (Board #8)
J. Mitchell, S. Waldren, AAFP

Optimizing the Design and Implementation of Privacy Controls for Healthcare Database Systems (Board #9)
E. Omran, Sunderland University; T. Grandison, IBM; P. Kumar, International Clinic

Leveraging Standardized Administrative Data to Assist Clinical Decision Support in the Delivery of Patient-reported Questionnaires (Board #10)
M. Speck, C. Dopler, K. Bielawski, J. Urchek, I. Katzan, C. Bae, Cleveland Clinic

The Annotation Librarian: A Toolkit for Natural Language Processing using UIMA (Board #11)
A. Teichert, J. Tabet, University of Utah; S. DuVall, VA Salt Lake City Health Care System

Track: Clinical Research Informatics

Utilization of Clinical Data in Developing a Model of the Dynamics Involved in Neonatal Apnea, Bradycardia, and Desaturation Spells (Board #12)
R. Amjad, University of Missouri-Columbia; R. Fales, T. Keim, University of Missouri

i2b2: Extensions to an Open Source Data Repository Tool (Board #13)
D. Batson, M. Kahn, The Children’s Hospital Denver

Evaluation of LOINC as a Reference Terminology for Clinical Document Types: a Case Report of an Outpatient EHR (Board #14)
V. Huser, Marshfield Clinic/University of Wisconsin-Madison

Track: Organizational Transformation

HITECH Driven Organizational Change within a Profession—Mission: Improved Individual & Population Health (Board #15)
L. Hoggle, Health Project Partners, LLC; M. Yadrick, Computrition, Inc.; C. Calder, Intermountain Healthcare

Updating Departmental Preference Lists (Board #16)
A. Weiss, The Cleveland Clinic Foundation
Track: Public Health Informatics

Implementation of a Mobile-based Disease Surveillance System during the 2009 Hajj, Kingdom of Saudi Arabia (Board #17)
A. Baghal, T. Wuhib, S. McNabb, O. Ibrahim, W. Li, C. Kinkade, N. Erondu, Centers for Disease Control and Prevention (CDC)

Final Course Project: Personal Health Record - Physician Office and Surgical Component (Board #18)
J. Buerck, J. Smith, A. Steppig, K. Flanagan, Saint Louis University

The Uniformed Services University/National Library of Medicine Public Health Informatics Course: A Unique Educational Collaboration (Board #19)
R. Gimbel, Uniformed Services University; P. Hakkinen, National Library of Medicine; S. Phillips, National Library of Medicine

Reengineering Business Processes to Strengthen Public Health Departments: Lessons Learned from the Common Ground Grantees (Board #20)
A. Infante, R. Singer, J. Moore, P. Dullabh, M. Meit, National Opinion Research Center (NORC)

1:30 pm - 2:30 pm Concurrent Sessions

S13: Agent-based Modeling for Public Health (Part 1)  Room: Acacia
Type: Hands-on; Track: Public Health Informatics

J. Schindler, Northrop Grumman Information Services; J. Holmes, University of Pennsylvania School of Medicine

This hands-on workshop will provide attendees with an overview of agent-based modeling (ABM) and its application to public health. We will review different modeling approaches and the benefits of ABM, the ABM model development process, a sample of public health topics examined using ABM, and more. Attendees will gain hands-on experience with a well-known ABM software tool, NetLogo.

**This 2-part session will be repeated on Wednesday**

Type: Hands-on; Track: Public Health Informatics

D. Koo, CDC

Using the case example of neural tube defects, Dr. Koo will interactively lead a discussion on how to identify and monitor a public health problem, some of the public health informatics challenges involved, and public health approaches to improving health, including the role of policy.

**This 2-part session will be repeated on Wednesday**
S15: i2b2 “How-To”: Installation, Startup, and Extending its Functionality (Part 1)  
Type: Hands-on; Track: Clinical Research Informatics

S. Murphy, Harvard University; M. Mendis, Partners; G. Weber, Harvard University

The software that is distributed by the project “Informatics for Integrating Biology and the Bedside (i2b2)” is used by many hospitals, universities, and healthcare businesses to aid the use of clinical data for research. This workshop will focus on the mechanics of setting up and populating an i2b2 database, and the more advanced topic of extending i2b2 software for custom uses needed at a site. Participants should download and install the source code of the “i2b2 Workbench” that is available at http://www.i2b2.org/software prior to arriving at the workshop.

S16: Monitoring EHRs to Ensure Safe and Effective Use: What is Required? (Part 1)  
Type: Small Group; Track: Clinical Informatics

D. Sittig, University of Texas Health Sciences Center; A. Wright, Brigham & Women’s Hospital; G. Kuperman, New York Presbyterian Hospital; D. Bates, Brigham & Women’s Hospital; H. Singh, Houston VA

Many organizations are in the midst of implementing Electronic Health Records (EHRs). Research and experience gained over the past 20 years has shown that implementing EHRs is difficult, time-consuming, and expensive. In addition, recent reports indicate that many organizations continue to experience various types of unintended adverse consequences. In a recent Commentary in JAMA we called for “periodic, unannounced, random, onsite inspections of EHR systems”. We went on to specify that those inspections must address all 8 dimensions of safe and effective EHR use that we previously outlined. Namely they must address: hardware and software, clinical content, user interfaces, user training and authorization procedures, clinical workflow and communication, organizational policies and procedures, compliance with state and federal rules and regulations, and periodic measurements of system activity. The goal of this workshop will be to discuss potential methods of inspecting EHRs along each of these 8 dimensions.
**S17: Beyond the Basics: Building an NLP Application and a Reference Standard with Open Source Tools (Part 1)**

Type: Hands-on; Track: Clinical Informatics

**Room: Copperwood**

**B. South, S. Duvall**, VA Salt Lake City Health Care; **S. Shen, S. Meystre**, University of Utah

Natural language processing (NLP) is key to unlocking the vast amount of information stored in narrative text within electronic medical records. This workshop will use a hands-on learning approach and introduce participants to application of NLP in the clinical domain. In the first part of this workshop participants will use a readily available open source annotation tool to demonstrate use of an annotation guideline, the development of an annotation schema, and a manual annotation task to develop a reference standard. This reference standard will be used in the second half of the workshop to demonstrate development and evaluation of a pipeline system for a particular clinical task using the Apache Unstructured Information Management Architecture (UIMA) Java Framework. De-identified healthcare documents will be provided along with open-source tools that allow participants to build reference standards and implement a working NLP system.

**This 2-part session will be repeated on Wednesday**

**S18: Terminologies and Meaningful Use: the Role of NLM (Part 1)**

Type: Hands-on; Track: Clinical Informatics

**Room: Desert Willow**


The Notice of Proposed Rule Making for Meaningful Use of EHRs in the US names certain terminologies and value sets as standards. The National Library of Medicine is particularly interested in assisting users with obtaining and implementing these terminologies. NLM has played a key role in licensing SNOMED CT for use in the United States, and is the national release center responsible for distributing SNOMED CT in the U.S. NLM is the producer of RxNorm, and produces the Unified Medical Language System, of which RxNorm, SNOMED CT, and LOINC, all vocabularies named within these standards, are a part. The workshop will focus on methods of distributing the terminologies, subsets, and value sets, perceived and real obstacles to obtaining them, and user needs in implementing these terminologies. The primary purpose of the workshop is to encourage dialogue with potential users of NLM services. The focus will be on how NLM can be of assistance and service as individuals and institutions address their terminology needs. Topics to be covered include the revision of the UMLSKnowledge Sources Server (KSS), submitting terminology requests, licensing issues, and methods of publishing, maintaining, and updating extensions and value sets. Participants should bring questions and suggestions.

**This 2-part session will be repeated on Wednesday**
2:45 pm - 3:45 pm  Concurrent Sessions

**S19: Agent-based Modeling for Public Health (Part 2)**
Type: Hands-on; Track: Public Health Informatics

**J. Schindler**, Northrop Grumman Information Services; **J. Holmes**, University of Pennsylvania School of Medicine

This hands-on workshop will provide attendees with an overview of agent-based modeling (ABM) and its application to public health. We will review different modeling approaches and the benefits of ABM, the ABM model development process, a sample of public health topics examined using ABM, and more. Attendees will gain hands-on experience with a well-known ABM software tool, NetLogo.

**S20: Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and Policy (Part 2)**
Type: Hands-on; Track: Public Health Informatics

**D. Koo**, CDC

Using the case example of neural tube defects, Dr. Koo will interactively lead a discussion on how to identify and monitor a public health problem, some of the public health informatics challenges involved, and public health approaches to improving health, including the role of policy.

**S21: i2b2 “How-To”: Installation, Startup, and Extending its Functionality (Part 2)**
Type: Hands-on; Track: Clinical Research Informatics

**S. Murphy, G. Weber**, Harvard University; **M. Mendis**, Partners

The software that is distributed by the project “Informatics for Integrating Biology and the Bedside (i2b2)” is used by many hospitals, universities, and healthcare businesses to aid the use of clinical data for research. This workshop will focus on the mechanics of setting up and populating an i2b2 database, and the more advanced topic of extending i2b2 software for custom uses needed at a site. Participants should download and install the source code of the “i2b2 Workbench” that is available at http://www.i2b2.org/software prior to arriving at the workshop.
Many organizations are in the midst of implementing Electronic Health Records (EHRs). Research and experience gained over the past 20 years has shown that implementing EHRs is difficult, time-consuming, and expensive. In addition, recent reports indicate that many organizations continue to experience various types of unintended adverse consequences. In a recent Commentary in JAMA, we called for “periodic, unannounced, random, onsite inspections of EHR systems”. We went on to specify that those inspections must address all 8 dimensions of safe and effective EHR use that we previously outlined. Namely they must address: hardware and software, clinical content, user interfaces, user training and authorization procedures, clinical workflow and communication, organizational policies and procedures, compliance with state and federal rules and regulations, and periodic measurements of system activity. The goal of this workshop will be to discuss potential methods of inspecting EHRs along each of these 8 dimensions.

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The Notice of Proposed Rule Making for Meaningful Use of EHRs in the US names certain terminologies and value sets as standards. The National Library of Medicine is particularly interested in assisting users with obtaining and implementing these terminologies. NLM has played a key role in licensing SNOMED CT for use in the United States, and is the national release center responsible for distributing SNOMED CT in the U.S. NLM is the producer of RxNorm, and produces the Unified Medical Language System, of which RxNorm, SNOMED CT, and LOINC, all vocabularies named within these standards, are a part. The workshop will focus on methods of distributing the terminologies, subsets, and value sets, perceived and real obstacles to obtaining them, and user needs in implementing these terminologies. The primary purpose of the workshop is to encourage dialogue with potential users of NLM services. The focus will be on how NLM can be of assistance and service as individuals and institutions address their terminology needs. Topics to be covered include the revision of the UMLS Knowledge Sources Server (KSS), submitting terminology requests, licensing issues, and methods of publishing, maintaining, and updating extensions and value sets. Participants should bring questions and suggestions.
### Wednesday, May 26, 2010

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00 am – 8:00 am</td>
<td>Continental Breakfast</td>
<td>Registration Lobby 1</td>
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<tr>
<td>7:00 am – 5:00 pm</td>
<td>Registration Open</td>
<td>Registration Lobby 1</td>
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<tr>
<td>8:00 am - 9:30 am</td>
<td>Plenary Session</td>
<td>Room: Eucalyptus/Honeysuckle</td>
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#### Federal Health IT Policy: View from Inside the Beltway

**D. Peddicord**, Washington Health Strategies Group, Oldaker, Belair & Wittie LLP

Health IT policy has evolved rapidly in the last several months, spurred by the $19 billion investment in modernizing health IT systems through the American Recovery and Reinvestment Act. All over the country, initiatives are underway to save time and money and improve quality by moving from paper to electronic health information, building smarter electronic decision support systems for clinicians, and getting more competing health systems to start exchanging electronic health information as a public good. The sea of change in visibility for our field has created new opportunities to put ideas into action. It also ramps up expectations and raises concerns about how to ensure that our workforce, communications infrastructure, and thought leaders are ready to meet these new challenges in a strategic and coordinated way.

Doug Peddicord, AMIA’s longtime advocacy expert, is the managing partner of Oldaker, Belair & Wittie. Dr. Peddicord is President of Washington Health Strategies Group, LLC, which provides a full range of consulting, lobbying and association management services to health care organizations. Previously, he was Vice President of Washington Health Advocates, representing physician and patient groups, health systems, and professional societies.

<table>
<thead>
<tr>
<th>9:30 am – 10:00 am</th>
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<th>Registration Lobby 1</th>
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<tbody>
<tr>
<td>10:00 am - 11:00 am</td>
<td>Concurrent Sessions</td>
<td>Room: Acacia</td>
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</table>

#### 527: Agent-based Modeling for Public Health (Repeat, Part 1)

**J. Schindler**, Northrop Grumman Information Services; **J. Holmes**, University of Pennsylvania School of Medicine

This hands-on workshop will provide attendees with an overview of agent-based modeling (ABM) and its application to public health. We will review different modeling approaches and the benefits of ABM, the ABM model development process, a sample of public health topics examined using ABM, and more. Attendees will gain hands-on experience with a well-known ABM software tool, NetLogo.
S28: Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and Policy (Repeat, Part 1)
Type: Hands-on; Track: Public Health Informatics

D. Koo, CDC

Using the case example of neural tube defects, Dr. Koo will interactively lead a discussion on how to identify and monitor a public health problem, some of the public health informatics challenges involved, and public health approaches to improving health, including the role of policy.

S29: Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful Use (Repeat, Part 1)
Type: Hands-on; Track: Organizational Transformation

J. Osheroff, Thomson Reuters; R. Greenes, Arizona State University; R. Murphy, Memorial Hermann Healthcare System/University of Texas- Houston

This session will provide hands-on exploration by attendees into success factors for deploying CDS alerts that improve outcomes and address (what is currently known about) meaningful use requirements. AHRQ is providing structured, coded logic statements in a formal template that implementers can further adapt into CDS rules. Attendees will use this template in an exercise to configure locally implementable rules, and discuss successful implementation practices. This session is designed for clinical information system implementers who have some familiarity with clinical decision support deployment (or principles) and would like a deeper, interactive, hands-on exposure to the topic.

S30: CDISC and IHE Progress Report: Linking Research Systems and EHRs
Type: Small Group; Track: Clinical Research Informatics

L. Bain, CDISC; D. Gabriel, University of California- Davis

Reuse of EHR data is an important return on investment opportunity widely-recognized in the HIT industry today. Recent CDISC and IHE efforts to link research systems to EHRs have borne fruit toward meeting this goal, and have set a course for continued advances. A progression of linked interoperability profiles - Retrieve Form, Retrieve Process, Redaction Services - provide simple interoperability that solve complex problems reflecting real-world research and health-delivery environments. This session reviews the progress made to-date and reflects future directions for IHE profiles addressing secondary uses of EHR data in research.
B. South, S. Duvall, VA Salt Lake City Health Care; S. Shen, S. Meystre, University of Utah

Natural language processing (NLP) is key to unlocking the vast amount of information stored in narrative text within electronic medical records. This workshop will use a hands-on learning approach and introduce participants to application of NLP in the clinical domain. In the first part of this workshop participants will use a readily available open source annotation tool to demonstrate use of an annotation guideline, the development of an annotation schema, and a manual annotation task to develop a reference standard. This reference standard will be used in the second half of the workshop to demonstrate development and evaluation of a pipeline system for a particular clinical task using the Apache Unstructured Information Management Architecture (UIMA) Java Framework. De-identified healthcare documents will be provided along with open-source tools that allow participants to build reference standards and implement a working NLP system.

S. McBride, B. Philips, B. Nixon-Lewis, Texas Tech University Health Sciences Center; D. Marchand, Dell Perot Systems

This interactive panel discussion will present a mixed method approach for a study to compare and contrast three ambulatory Electronic Health Records (EHR) used at three campuses of a large health science center that serves the 108 western-most counties in Texas, a vast rural area of diverse communities. The study focuses on understanding implementation and practitioner acceptability, workflow redesign, functionality including interoperability, and progress toward “meaningful use”. A second and equally important aim is to compare these EHRs to a fourth option being considered to connect rural West Texas through a hosted ASP or software-as-service option. At the completion of the presentation the attendees will be able to: 1) understand how a mixed methods approach can be utilized to evaluate the effectiveness of EHRs on key parameters, 2) identify key elements of a heuristic method for evaluating vendor products and support for clinical care and quality improvement, 3) formulate effective strategies for use in challenging service areas of resource scarcity and diverse, rural living populations, 4) discuss the benefits and challenges to a hosted ASP/software as a service (SaaS) option and 5) participate in a discussion to critique the mixed methods approach through an informative interactive venue.

J. Schindler, Northrop Grumman Information Services; J. Holmes, University of Pennsylvania School of Medicine

This hands-on workshop will provide attendees with an overview of agent-based modeling (ABM) and its application to public health. We will review different modeling approaches and the benefits of ABM, the ABM model development process, a sample of public health topics examined using ABM, and more. Attendees will gain hands-on experience with a well-known ABM software tool, NetLogo.
S34: Preventing Neural Tube Defects: A Case Study in Public Health, Informatics, and Policy (Repeat, Part 2)
Type: Hands-on; Track: Public Health Informatics
D. Koo, CDC

Using the case example of neural tube defects, Dr. Koo will interactively lead a discussion on how to identify and monitor a public health problem, some of the public health informatics challenges involved, and public health approaches to improving health, including the role of policy.

S35: Configuring Clinical Decision Support Rules to Improve Care and Achieve Meaningful Use (Repeat, Part 2)
Type: Hands-on; Track: Organizational Transformation
J. Osheroff, Thomson Reuters; R. Greenes, Arizona State University; R. Murphy, Memorial Hermann Healthcare System/University of Texas- Houston

This session will provide hands-on exploration by attendees into success factors for deploying CDS alerts that improve outcomes and address (what is currently known about) meaningful use requirements. AHRQ is providing structured, coded logic statements in a formal template that implementers can further adapt into CDS rules. Attendees will use this template in an exercise to configure locally implementable rules, and discuss successful implementation practices. This session is designed for clinical information system implementers who have some familiarity with clinical decision support deployment (or principles) and would like a deeper, interactive, hands-on exposure to the topic.

S36: Secondary Use of Patient Data for Research and Quality Improvement: Tips, Tricks, Tools, Troubles, Triumphs and Other Topics
Type: Small Group; Track: Clinical Research Informatics
M. Kahn, D. Batson, University of Colorado- Denver

Leveraging clinical data to support research and quality improvement projects can be highly advantageous, but care must be taken when establishing generalized informatics tools and support services. This session will focus on technical and non-technical challenges when preparing to use clinical data to inform and support research studies and quality initiatives. We'll examine the balance between service and technology approaches to clinical research data delivery, and illuminate some of the challenges and opportunities inherent in re-purposing the clinical data stream.
Natural language processing (NLP) is key to unlocking the vast amount of information stored in narrative text within electronic medical records. This workshop will use a hands-on learning approach and introduce participants to application of NLP in the clinical domain. In the first part of this workshop participants will use a readily available open source annotation tool to demonstrate use of an annotation guideline, the development of an annotation schema, and a manual annotation task to develop a reference standard. This reference standard will be used in the second half of the workshop to demonstrate development and evaluation of a pipeline system for a particular clinical task using the Apache Unstructured Information Management Architecture (UIMA) Java Framework. De-identified healthcare documents will be provided along with open-source tools that allow participants to build reference standards and implement a working NLP system.

The Robert Wood Johnson Foundation’s Project HealthDesign forged a new vision for personal health records, using a combination of collaborative work, user-centered design, and iterative prototype evaluation. During this session, a subset of the Project HealthDesign group will discuss the process and describe their specific prototypes. The group will lead a discussion about personal health record approaches and limitations.

**Track: Clinical Informatics**

**The Extensible Human Oracle Suite of Tools (eHOST) for Pre-Annotation of Clinical Narratives (Board #1)**
J. Leng, S. Shen, A. Gundlapalli, University of Utah; B. South, VA Salt Lake City Health Care

**Measuring Patient Reported Self-Care with Mobile Technology: A Pilot Study Using Ecological Momentary Assessment in Diabetes (Board #2)**
S. Mulvaney, K. Johnson, K. Wallston, R. Rothman, M. Dietrich, T. Elasy, Vanderbilt University Medical Center

**Adoption of Electronic Prescribing and Electronic Health Records among Arizona’s Federally Qualified Health Centers (Board #4)**
K. Saverno, T. Warholak, University of Arizona College of Pharmacy; M. Rupp, Midwestern University College of Pharmacy; M. Rutala, Arizona Health-e Connection

**Electronic Questionnaires Improve Efficiency in an Outpatient Colorectal Surgery Clinic (Board #5)**
T. Sobol, B. Gurland, Cleveland Clinic
Ability of Clinical Decision Support Systems to Alert Pharmacists of Clinically Important Drug-Drug Interactions (Board #6)
T. Warholak, University of Arizona College of Pharmacy; K. Saverno, University of Arizona; L. Hines, A. Grizzle, D. Malone, University of Arizona College of Pharmacy

A Tool to Help Providers Find Prescription Drug Abusers (Board #7)
A. Weiss, The Cleveland Clinic Foundation

Using Statistics to Reduce Inpatient Preference List Development Time (Board #8)
A. Weiss, The Cleveland Clinic Foundation

Analysis of Support Provided for Emergency Department Information System (EDIS) Cutover and its Effect on the Common Markers of Emergency Department (ED) Efficiency (Board #9)
S. Wong, S. Torbati, Cedars-Sinai Medical Center; J. Chang, Zynx Health Incorporated; P. Silka, Cedars-Sinai Medical Center

An Approach for Quality Measurement Development to Enhance Clinical Decision Support Capability (Board #10)
A. Wright, Brigham & Women’s Hospital; D. Sittig, University of Texas Health Sciences Center; R. Tsurikova, B. Middleton, Partners HealthCare

A “Reusable Rocket” for Developing Interactive Population-based Electronic Registries (Board #11)
A. Zai, Massachusetts General Hospital

Track: Clinical Research Informatics

A Development of Collaborative PubMed Image Search System: iSearchPubMedImages (Board #12)
S. Kim, A. Sadagopan, University of Kentucky

Service Oriented Architecture to Support Patient Safety and Quality of Care (Board #13)
D. Ko, J. Neat, S. Pannoni, M. Kaminski, J. Palmer, R. Sarbora, J. Niland, A. Shakir, City of Hope National Medical Center

Automated Pathology Data Extraction of Surgical Pathology Reports (Board #14)
I. Kunz, S. Courdy, University of Utah

A Usability Evaluation of Protein Docking Applications (Board #15)
D. Mohrer, M. Kim, W. Zhang, B. Trusko, P. Elkin, Mount Sinai School of Medicine

Track: Organizational Transformation

Improving Staff Nurse Competency in Nursing Informatics: An Educational Initiative (Board #16)
K. Guiney, B. Richabaugh, University of California Davis Medical Center

An Open Source Solution for Tracking Employee Flu Vaccination Status (Board #17)
S. Mehle, M. Laliberte, D. Hulbert, HealthEast Care System
Track: Public Health Informatics

IQCare -- Freely Available Technology Innovation for Low Resource Hospitals and Clinics (Board #18)
B. Jefferson, Futures Group

Successes and Challenges with Implementing a Web-based Case Management and Surveillance System for Tuberculosis in Massachusetts (Board #19)
J. Malenfant, G. Haney, S. Troppy, Massachusetts Dept of Public Health

Local Public Health and Health Information Exchange Business Model (Board #20)
K. Stevens, Marion County Health Department; S. Grannis, Regenstrief Institute; P. Gibson, Marion County Health Department; R. Merriwether, Regenstrief Institute

The Role of a Public Health Informatician at a Health Information Exchange (Board #21)
K. Stevens, Marion County Health Department

1:30 pm - 2:30 pm Concurrent Sessions

S39: Development of Ontology-anchored Grid-based Data Services to Facilitate Integrative Clinical and Translational Science (Part 1)
Room: Acacia
Type: Hands-on; Track: Clinical Research Informatics

J. Permar, R. Dhaval, Ohio State University

This session will provide an overview of the core definitions and software engineering approaches that contribute to the successful development of semantically interoperable grid-based data services. We will present this hands-on demonstration and tutorial in the context of using the openMDR toolkit and TRIAD grid to facilitate the conduct of integrative queries between research data collected and stored in a study-specific RedCap database and standard clinical information maintained in an enterprise data warehouse. TRIAD is a service-oriented infrastructure that extends the caGrid middleware to support translational research, and openMDR is a suite of tools that provides grid-compatible semantic metadata management capabilities, including the creation of locally relevant ontology-anchored data elements, and integrated retrieval of semantic metadata from repositories across grid-enabled networks, including TRIAD and caGrid.

S40: Standards Influenced Research Information Systems Engineering (Part 1)
Room: Bougainvillea
Type: Hands-on; Track: Clinical Research Informatics

A. Shakir, City of Hope National Medical Center

Information management standards such as common data models, information exchange specifications, clinical terminologies, and metadata management are intended to enable semantic interoperability and facilitate system component reuse. Taking advantage of the benefits offered by these standards requires specific actions be taken. First, there must be an awareness of existing standards, their application, and the means of participating in their evolution; second, you must adopt an architectural framework for systems engineering that embodies the standards, and, finally, you must configure the standards to your particular technical environment and problem space. This workshop will touch on all three of these actions with facilitated dialogue and illustrative examples. Specific topics to be covered include: data modeling; data interchange specification standards, common clinical terminologies; and metadata repository standards.
IQCare, the EMR component of IQSolutions, was designed to address the difficult information and communication technology challenges in developing countries. The goal of IQCare is to improve patient care, monitor program outcomes, enable clinical and programmatic decision-making for hospital facilities based on strategic information and evidence-based data provided by the system.

Clinical decision support (CDS) is a critical enabler of care improvement and is a key component of the meaningful use criteria established by the Office of the National Coordinator. However, CDS still is an active area of research with many unresolved issues related to knowledge representation, knowledge maintenance, and how best to integrate CDS into workflow. Several initiatives at the national level, such as those sponsored by AHRQ and the National Quality Forum are focused on addressing these issues. This workshop will review CDS-related national initiatives and, through a “Town Hall” approach, solicit input from the audience about the extent to which those initiatives are addressing the most important outstanding questions related to CDS. The input received from the audience will provide input to AMIA’s positions CDS-related policy directions.

This workshop is designed to give participants an understanding of the HIT System Lifecycle and the essential principles of HIT Project Management. The participants will explore strategies to promote success when implementing EHR systems by examining the relationship between the people, process and technology components of an implementation. Content will focus on implementation phases, tips to impact implementation effectiveness and efficiency, and project management methodology.
The Notice of Proposed Rule Making for Meaningful Use of EHRs in the US names certain terminologies and value sets as standards. The National Library of Medicine is particularly interested in assisting users with obtaining and implementing these terminologies. NLM has played a key role in licensing SNOMED CT for use in the United States, and is the national release center responsible for distributing SNOMED CT in the U.S. NLM is the producer of RxNorm, and produces the Unified Medical Language System, of which RxNorm, SNOMED CT, and LOINC, all vocabularies named within these standards, are a part. The workshop will focus on methods of distributing the terminologies, subsets, and value sets, perceived and real obstacles to obtaining them, and user needs in implementing these terminologies. The primary purpose of the workshop is to encourage dialogue with potential users of NLM services. The focus will be on how NLM can be of assistance and service as individuals and institutions address their terminology needs. Topics to be covered include the revision of the UMLS Knowledge Sources Server (KSS), submitting terminology requests, licensing issues, and methods of publishing, maintaining, and updating extensions and value sets. Participants should bring questions and suggestions.

2:45 pm - 3:45 pm Concurrent Sessions

S45: Development of Ontology-anchored Grid-based Data Services to Facilitate Integrative Clinical and Translational Science (Part 2) Room: Acacia

J. Permar, R. Dhaval, Ohio State University

This session will provide an overview of the core definitions and software engineering approaches that contribute to the successful development of semantically interoperable grid-based data services. We will present this hands-on demonstration and tutorial in the context of using the openMDR toolkit and TRIAD grid to facilitate the conduct of integrative queries between research data collected and stored in a study-specific RedCAP database and standard clinical information maintained in an enterprise data warehouse. TRIAD is a service-oriented infrastructure that extends the caGrid middleware to support translational research, and openMDR is a suite of tools that provides grid-compatible semantic metadata management capabilities, including the creation of locally relevant ontology-anchored data elements, and integrated retrieval of semantic metadata from repositories across grid-enabled networks, including TRIAD and caGrid.
S46: Standards Influenced Research Information Systems Engineering (Part 2)
Type: Hands-on; Track: Clinical Research Informatics

A. Shakir, City of Hope National Medical Center

Information management standards such as common data models, information exchange specifications, clinical terminologies, and metadata management are intended to enable semantic interoperability and facilitate system component reuse. Taking advantage of the benefits offered by these standards requires specific actions be taken. First, there must be an awareness of existing standards, their application, and the means of participating in their evolution; second, you must adopt an architectural framework for systems engineering that embodies the standards, and, finally, you must configure the standards to your particular technical environment and problem space. This workshop will touch on all three of these actions with facilitated dialogue and illustrative examples. Specific topics to be covered include: data modeling; data interchange specification standards, common clinical terminologies; and metadata repository standards.

S47: Evaluating Health Information Systems in Low-resource Countries
Type: Small Group; Track: Public Health Informatics

J. Richards, CDC

Due to the longitudinal nature of antiretroviral therapy (ART), the complexity of the data being captured and increasing number of patients on ART, the quantity of information available to clinicians and ministries of health has grown immensely, thereby increasing the resources needed to support information systems throughout low-resource countries. This leads us to ask: How do we identify the best option(s) for electronic health information systems that can be sustained by ministries of health to support their care and treatment services? And what methods can we use to detect health information system suitability and sustainability attributes that can provide the optimum evidence for making decisions on appropriate health information systems for HIV/AIDS care in an individual low resource country. This workshop will discuss possible models and methods of assessments and evaluations for information systems that can lead to sustainability in low resource countries.

S48: National Clinical Decision Support Initiatives: Perspectives on the Current State and a Town Hall about a Way Forward (Part 2)
Type: Small Group; Track: Clinical Research Informatics

G. Kuperman, NewYork Presbyterian Hospital; J. Osheroff, Thomson Reuters; R. Greenes, Arizona State University; T. Payne, University of Washington; D. Sittig, University of Texas Health Sciences Center

Clinical decision support (CDS) is a critical enabler of care improvement and is a key component of the meaningful use criteria established by the Office of the National Coordinator. However, CDS still is an active area of research with many unresolved issues related to knowledge representation, knowledge maintenance, and how best to integrate CDS into workflow. Several initiatives at the national level, such as those sponsored by AHRQ and the National Quality Forum are focused on addressing these issues. This workshop will review CDS-related national initiatives and, through a “Town Hall” approach, solicit input from the audience about the extent to which those initiatives are addressing the most important outstanding questions related to CDS. The input received from the audience will provide input to AMIA’s positions CDS-related policy directions.
S49: HIT System Lifecycle: Proven Project Management Methods Workshop (Repeat, Part 2)  
Type: Hands-on; Track: Organizational Transformation  
Room: Copperwood

J. Murphy, Aurora Health Care; C. Gadd, Vanderbilt University

This workshop is designed to give participants an understanding of the HIT System Lifecycle and the essential principles of HIT Project Management. The participants will explore strategies to promote success when implementing EHR systems by examining the relationship between the people, process and technology components of an implementation. Content will focus on implementation phases, tips to impact implementation effectiveness and efficiency, and project management methodology.

S50: Terminologies and Meaningful Use: the Role of NLM (Repeat, Part 2)  
Type: Hands-on; Track: Clinical Informatics  
Room: Desert Willow

S. Nelson, J. Kilbourne, J. Case, S. Srinivasan, J. Willis, National Library of Medicine (NLM)

The Notice of Proposed Rule Making for Meaningful Use of EHRs in the US names certain terminologies and value sets as standards. The National Library of Medicine is particularly interested in assisting users with obtaining and implementing these terminologies. NLM has played a key role in licensing SNOMED CT for use in the United States, and is the national release center responsible for distributing SNOMED CT in the U.S. NLM is the producer of RxNorm, and produces the Unified Medical Language System, of which RxNorm, SNOMED CT, and LOINC, all vocabularies named within these standards, are a part. The workshop will focus on methods of distributing the terminologies, subsets, and value sets, perceived and real obstacles to obtaining them, and user needs in implementing these terminologies. The primary purpose of the workshop is to encourage dialogue with potential users of NLM services. The focus will be on how NLM can be of assistance and service as individuals and institutions address their terminology needs. Topics to be covered include the revision of the UMLS Knowledge Sources Server (KSS), submitting terminology requests, licensing issues, and methods of publishing, maintaining, and updating extensions and value sets. Participants should bring questions and suggestions.

3:45 pm – 4:15 pm  Coffee Break  Registration Lobby 1

4:15 pm - 5:45 pm  Semi-plenary Sessions

S51: Challenges and Future Directions of Public Health Informatics  
Track: Public Health Informatics  
Room: Eucalyptus

R. Kukafka, Columbia University

At the 2001 Spring Congress, AMIA brought together the informatics and public health communities to develop a national agenda for the growth and development of public health informatics. A great deal has changed since that time. Obesity, for one, is now the fastest-growing cause of death and disease. Health literacy, another major public health issue, prevents millions of Americans from successfully managing their health. Also health consumers are now blogging and tweeting, and “meaningful use” has taken on new meaning. This presentation will review challenges and future directions of public health informatics, particularly as the field continues to expand in the midst of the HITECH Act to support the adoption of health information technology and the promotion of nationwide health information exchange to improve health care.
**S52: Unmet Challenges in Clinical Research Informatics**  
Room: Honeysuckle  
Track: Clinical Research Informatics  
R. DiLaura, Cleveland Clinic

This session will provide a lively and light-hearted review of a 2010 survey from practitioners in our field describing where we are now as a discipline, and what are the important areas for the future. This participative dialogue will help to focus thinking around growing your career, generate ideas for future grant submissions, or just provide an opportunity to express your opinion on how we can collaborate in innovative ways for the future.

**5:45 pm – 6:45 pm**  
**Reception**  
Room: Foxtail/Ironwood

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**Thursday, May 27, 2010**

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<tr>
<th>Time</th>
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<tr>
<td>7:00 am – 8:00 am</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:00 am – 10:00 am</td>
<td>Registration Open</td>
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<td>8:00 am - 9:00 am</td>
<td>Concurrent Sessions</td>
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**S53: VIVO: Enabling National Networking of Scientists**  
Room: Acacia  
Type: Small Group; Track: Clinical Research Informatics  
M. Conlon, University of Florida

VIVO is a semantic-web based system to enable next generation applications for team science. The architecture and ontology of VIVO will be described as well as the consequences for implementation and operation. The national architecture of applications and VIVO systems will provide a foundation for new opportunities to support team science.

**S54: Lessons Learned from Implementing a Web-based Case Management and Surveillance System for Reportable Diseases in Massachusetts for State and Local Public Health**  
Room: Bougainvillea  
Type: Small Group; Track: Public Health Informatics  
J. Malenfant, D. Heisey-Grove, S. Troppy, G. Haney, Massachusetts Dept of Public Health; J. Alamgir, Consilience Software

In 2006, Massachusetts Department of Public Health (MDPH) introduced a web-based disease surveillance system called the Massachusetts Virtual Epidemiologic Network (MAVEN). The system was rolled out initially to provide surveillance and case management for approximately 70 infectious diseases. MAVEN is currently used by both state and local health departments and has increased efficiency, transparency and has enhanced communication between groups. MAVEN activities are augmented by the use of electronic laboratory reporting, through which disease events are created or data are appended automatically. Case information is also captured through automated character recognition tools to decrease data entry time and increase data quality. This session will describe the lessons learned three years after implementing MAVEN in Massachusetts. The panel consists of surveillance epidemiologists, software developers and project managers.
Type: Small Group; Track: Clinical Informatics
V. Huser, Marshfield Clinic/University of Wisconsin-Madison

This workshop will provide an introduction to workflow technology, also known as Business Process Management (BPM). In the first part, the workshop will provide historical overview, evolution and introduction into Workflow Management Systems and introduce the benefits of formal representation of processes. The second part will provide overview of the current process representation standards and in detail describe the XPDL standard (XML process definition language) from Workflow Management Coalition. Finally, in the third part, the participants will be able to see (and follow) a hands-on demonstration of use of an open source workflow editor, engine, workflow mining tool and view and modify examples of healthcare process definitions. Relationship of decision support engines to workflow engines will also be discussed.

S56: E-Prescribing: Standards and Adoption
Type: Small Group; Track: Organizational Transformation
D. Bell, RAND Corporation

The challenges and successes of E-prescribing likely represent a microcosm of the challenges to come with EHR adoption. The talk will review progress in e-prescribing adoption, barriers including workflow integration and challenges with refill requests, and progress in advanced standards for e-prescribing interoperability, including RxNorm and the Structured and Codified Sig.

9:00 am – 9:30 am Coffee Break
Registration Lobby 1

9:30 am - 11:00 am Plenary

Closing Plenary: Re-calibrating Biomedical Informatics’ “True North”
Eucalyptus/Honeysuckle

W. Stead, Vanderbilt University

Dr. William Stead chaired the National Research Council Committee that found “current efforts aimed at nationwide deployment of healthcare information technology will not be sufficient to achieve the vision of 21st century healthcare, and may even set back the cause”. He will summarize the committee’s findings, discuss the root cause, and suggest a path forward.
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• Important dates and deadlines
• Registration

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