

AMIA Policy Invitational Conference Series Final Progress Report

Principal Investigator
Douglas B. Fridsma, MD

Team Member	Role
Jeffery Smith	AMIA Staff (2015-2017)
Salome Aringo	AMIA Staff (2015)
Jasmine Casteel	AMIA Staff (2016-2017)
Thomas H. Payne	2015 Policy Invitational Chair
Peter J. Embi	2016 Policy Invitational Chair
Ross D. Martin	AMIA Staff (2015)

The American Medical Informatics Association (AMIA)

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Shafa Al-Showk

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Structured Abstract

- Purpose:** To develop consensus recommendations on policy meant to improve health IT for patient care, facilitate research and manage the health of populations. Specifically, the 2015 conference focused on the ongoing evolution of electronic health records in a world of value-based care. The 2016 conference examined the concept of evidence-generating medicine as a necessary corollary to evidence-based medicine in the learning health system.
- Scope:** Two meetings were held over the course of the project period, including participation from over 150 public and private sector stakeholders.
- Methods:** Concurrent breakout sessions discussed questions and developed findings/recommendations. These findings/recommendations were then synthesized and enhanced by informatics experts.
- Results:** A set of consensus recommendations were captured in two papers for publication. One paper focused on policies to improve the ongoing evolution of health IT for value-based care, and the other paper outlines policies to enable research at the point-of-care to improve local, regional and national clinical research.
- Keywords:** Health IT, electronic health records, informatics, evidence-generating medicine, learning health system, value-based care, health IT certification

Purpose

For more than 10 years, the AMIA Policy Invitational has served as a unique platform to inform legislative, regulatory and policy development related to health informatics. Health informatics broadly encompasses a spectrum of activities from molecules to populations, bridging basic, clinical and translational research through care delivery, patients, populations and public health. Health informatics is the interdisciplinary field that studies and pursues the effective uses of data, information, and knowledge for scientific inquiry, problem solving and decision making, motivated by efforts to improve human health.

The objective of AMIA's Policy Invitational (API) is to develop consensus recommendations on policy meant to improve health IT for patient care, facilitate research and manage the health of populations. As an interdisciplinary field of study, consensus is sought among clinicians, researchers, public health experts, technology developers, patients, policy professionals, and educators of informatics. Specifically, the 2015 API focused on the ongoing evolution of electronic health records in a world of value-based care. The 2016 API examined the concept of evidence-generating medicine as a necessary corollary to evidence-based medicine in the learning health system. These meetings are designed to enable attendees to not only share their areas of expertise, but participate with colleagues in focused and thought-provoking discussions that will help articulate the role of health informatics in developing next-generation federal policies and research priorities.

Scope

Below, the background, context, settings and participants are described for the two meetings held during the grant project period.

2015 AMIA Policy Invitational

The 2015 AMIA Policy Invitational (API2015) was held at the Capital Hilton, in Washington, DC on September 17 – 18, 2015. The theme of API2015 built on a year-long project conducted by AMIA’s EHR 2020 Task Force to develop policy recommendations for the next phase in EHR evolution. Published in May 2015, “Report of the AMIA EHR-2020 Task Force on the status and future direction of EHRs,” developed ten recommendations across five areas meant to optimize both the safety and efficiency of EHR systems.¹ This report served as a rubric for API2015, which sought to develop recommendations on the evolution of clinical data capture & documentation; how EHRs can better support payment and delivery reform; and how EHRs can be a platform for innovation and research to support precision medicine and the learning health system.

The lead author of the EHR 2020 Task Force report was Thomas H. Payne, MD, FACMI and he served as the API2015 Planning Committee Chair. The Planning committee also included the following AMIA members:

- Julia Adler-Milstein, University of Michigan
- William Tierney, Regenstrief
- Sarah Corley, NextGen Healthcare
- Theresa Cullen, Veterans Health Administration
- Andrew Gettinger, Office of the National Coordinator for Health IT
- Linda Harrington, Texas Christian University
- Gil Kuperman, New York Presbyterian Hospital
- Ellen Makar, Agency for Healthcare Research & Quality
- David McCallie, Cerner Corporation
- Paul Tang, Palo Alto Medical Foundation
- Charlotte Weaver
- Charlene Weir, University of Utah
- Michael Zaroukian, Sparrow Health System

AMIA Student Members served as scribes for API2015, including:

- Carly Daley, Parkview Research Center
- Yumi Diangi, Stanford Children's Hospital
- Fabricio Kury, National Institutes of Health
- Brittany Partridge, University of Texas
- Michael Steigman, Massachusetts General Hospital

Facilitators for breakout sessions were provided by Deloitte Consulting | Strategy, and included:

- Stacey Adam, PhD, Manager
- Catherine Carle, Consultant
- Roshni Ghosh, MD, Senior Manager
- Jessica Nadler, PhD, Senior Manager
- Greg Rehwoldt, PhD, Specialist Master

The API2015 title was “Unlocking the Potential of Electronic Health Records: How Policymakers Can Impact the On-going Evolution of EHRs,” and it featured two keynote

speakers, who provided views from the private sector and the public sector to discuss their vision for how EHRs need to evolve so that patients receive better care, populations are better managed and healthcare costs are better contained. Attendees also heard from three distinguished panels, which set the stage for breakout sessions (discussed further under Methods).

Table 1 – Keynotes & Panelists

John Glaser, PhD, Senior Vice President, Cerner
Robert Anthony, Deputy Director, Quality Measurement and Health Assessment Group within the Center for Clinical Standards & Quality, at Centers for Medicare & Medicaid Services
Blackford Middleton, MD, MPH, MSc, Vanderbilt University Medical Center, Nashville, TN
Thomas H. Payne, MD, University of Washington, Seattle, WA
Panel 1: Evolution of Clinical Documentation & Data Capture
Gil Kuperman, MD, New York Presbyterian Hospital, New York, NY
Helen Burstin, MD, MPH, National Quality Forum, Washington, DC
Sarah Corley, MD, NextGen Healthcare Systems, Washington, DC
Lawrence Garber, MD, Reliant Medical Group, Worcester, MA
Panel 2: Are EHRs Ready for Payment & Delivery Reform?
Julia Adler-Milstein, PhD, University of Michigan, Ann Arbor, MI
Alicia Hennie, Health Policy Adviser, Senate Health, Education, Labor and Pensions Committee, U.S. Senator Lamar Alexander (R-Tenn.)
Colin Goldfinch, Health Policy Adviser, Senate Health, Education, Labor and Pensions Committee, U.S. Senator Patty Murray (D-Wash.)
Steven Bernstein, MD, MPH, University of Michigan Health System, Ann Arbor, MI
Jamie Beth Solak, Arlington Healthcare Group, Arlington, VA
Panel 3: Advancing Research and Innovation through EHRs
David McCallie, MD, Cerner Corp., Kansas City, MO
Peggy Peissig, PhD, Marshfield Clinic Research Foundation, Marshfield, WI
Ricky Bloomfield, MD, Duke Medicine, Durham, NC
Joshua Mandel, MD, Children's Hospital Boston, Boston, MA

A full listing of keynote and panelist bios can be found on the website developed for API2015, available at: <http://api2015.strikingly.com>.

2016 AMIA Policy Invitational

The 2016 AMIA Policy Invitational (API2016) was held at the DoubleTree by Hilton, in Bethesda, MD on September 21 – 22, 2016. During the 2016 AMIA Policy Invitational (API2016) participants examined issues related to the possibilities and the pitfalls of reaching near universal adoption of EHRs in US healthcare, and how this paradigm requires a re-examination of how clinical practice interacts with clinical research and vice versa. The title of API2016 was, “Completing the Evidence Cycle: Reimagining the Research-Practice Relationship in a Post-Meaningful Use Era,” which initiated a broad discussion of how we can

leverage point-of-care activities and systems to improve clinical research, accelerate biomedical discovery and improve the health of individuals and populations. The API2016 Planning Committee Chair was Peter J. Embi, MD, MS, FACMI, and the initial framing focused on “evidence-generating medicine,” or EGM. EGM is defined as “The systematic incorporation of research and quality improvement considerations into the organization and practice of healthcare to advance biomedical science and thereby improve the health of individuals and populations.”ⁱⁱ API2016 focused discussion on three areas: (1) how to integrate research at the point-of-care symbolizing a single *node*; (2) conducting research that could impact care delivery across organizations in small *networks*; and (3) ways public policy could contribute to the long-term *sustainability* of a national research ecosystem. Together, Nodes, Networks and Sustainability provided a framework for API2016.

The Planning committee included the following AMIA members:

- Nick Anderson, UC Davis
- Elmer Bernstam, UT Health Science Cntr
- Michael Cantor, New York University
- Margo Edmonds, AcademyHealth
- Chuck Friedman, University of Michigan
- Paul Fu, Jr., UCLA-Harbor
- Joseph Kannry, Mt. Sinai
- Subha Madhavan, Georgetown University
- Rachel Richesson Duke
- Neil Sarkar, Brown University
- Jessica Tenenbaum, Duke

API2016 hosted three keynotes including:

- National Library of Medicine Director Dr. Patricia Brennan;
- FDA Commissioner Dr. Robert Califf; and
- Agency for Healthcare Research and Quality Director Andrew Bindman.

Scribes for the breakout sessions included the following AMIA Student members:

- Angelina Baker, UnitedHealthcare Community Plan of TN
- Fabrício Kury, National Library of Medicine
- Yuanyuan Feng, University of Maryland, Baltimore County
- Maya Ramachandran, Columbia University
- Michael Steigman, Harvard
- Jake Lancaster, Vanderbilt

Methods

This section discusses how the conferences were designed and organized.

2015 AMIA Policy Invitational

Consistent with past meetings, API2015 was designed as a working meeting meant to generate findings and policy recommendations as outputs. To facilitate this goal, API2015 included a series of panels and two keynotes. While the keynotes provided top-level context from both private industry and federal agencies, the panels provided focused context corresponding to the

breakout session that succeeded each panel. The first panel discussed “the evolution of clinical data capture & documentation;” the second panel broadened the aperture by asking the question, “Are EHRs ready for payment and delivery reform?” and the third panel explored “how can EHRs can be a platform for innovation and research to support precision medicine and the learning health system?” The questions posed to concurrent breakout sessions following each panel discussion are below. Each breakout session had roughly 15-20 participants.

Table 2: API2015 Breakout Session Questions

<p>Breakout A: The Evolution of Clinical Documentation & Data Capture</p> <ol style="list-style-type: none"> 1. Could a shift in the focus of quality programs to value and outcomes have an impact on clinicians’ documentation obligations (which, in turn, would improve clinicians’ satisfaction with EHRs)? If yes, what policy levers could be used to accelerate such changes? 2. As alternative payment models are advanced, what other considerations must be taken into account to assure that (a) the administrative documentation burden on clinicians is reduced, and (b) all members of the care team can contribute to the record in a way that is suited to their role and that supports team-based care? 3. Other than payment reform, what changes could regulatory and quasi-regulatory agencies make to assure that clinical care remains the primary focus of clinical documentation activities?
<p>Breakout B: Networks: Are EHRs Ready for Payment & Delivery Reform?</p> <ol style="list-style-type: none"> 1. What are the top three priorities related to payment and delivery reform, and describe how EHRs and related capabilities are or are not proving effective. 2. Suggest 1-2 strategies or solutions, particularly those related to policy, which could be effective in achieving the desired progress in one or more of the focal domains mentioned in Question 1.
<p>Breakout C: Advancing Research and Innovation through EHRs</p> <ol style="list-style-type: none"> 1. Should APIs become regulated requirements of EHRs? Are standards needed for APIs? 2. Will an app ecosystem emerge for EHRs (similar to iPhone App Store)? And what is the role of the government in its potential development? 3. How can research benefit from this emerging paradigm?

Following each breakout session, results of the session were reported out and captured by scribes for use in the final report.

2016 AMIA Policy Invitational

In preparation for the API2016, AMIA staff designed and deployed a website,ⁱⁱⁱ which served as a way to enable pre-conference collaboration and discussion. Leveraging AMIA’s AMIAConnect platform, breakout session questions were posted two weeks in advance of the

meeting, and attendees were encouraged to engage with fellow participants by considering the questions via discussion threads. AMIAConnect is the association’s online member community for networking, collaboration and sharing information. Platform features include: Member profiles; discussion boards; private messaging; personal contact networks; and Social media links. More information can be found at: <https://www.amia.org/amia-connect>

Similar to API2015, API2016 used a presentation/breakout session format to provide context to participants. However, API2016 opted not to use a panel discussion, but rather focused on three keynotes to precede the breakout sessions. The 2016 AMIA Policy Invitational (API2016) segmented the two-day meeting into a focus on how to integrate research at the point-of-care symbolizing a single node. Next, meeting attendees considered questions related to conducting research that could impact care delivery across organizations in breakouts focused on networks. Finally, attendees considered ways public policy could contribute to the long-term sustainability of a national research ecosystem. To supplement these discussions, API2016 attendees heard keynotes given by National Library of Medicine Director Dr. Patricia Brennan, FDA Commissioner Dr. Robert Califf, and Agency for Healthcare Research and Quality Director Andrew Bindman.

Table 3: API2016 Breakout Discussion Questions

<p>Breakout A: Nodes: Evidence Generation at the Local Level</p> <ol style="list-style-type: none"> 4. What policies can better engage clinicians, patients and health systems in research activities? 5. How are current policies, such as the Health Insurance Portability and Accountability Act (HIPAA) and Common Rule presenting barriers to Evidence-Generating Medicine and clinical research? 6. Which policies can ensure EHRs are developed to facilitate research? Specific functionalities could include recruitment, incorporation of results back to front-line clinicians, etc.
<p>Breakout B: Networks: Clinical Research Across Organizations</p> <ol style="list-style-type: none"> 3. What policies inhibit multi-site research and how might they be addressed? 4. What policies can improve information flows to support reproducibility, quality, veracity, and completeness of data? 5. What are the technical barriers to sharing data among network participants (and across networks)? How can public policy address these barriers?
<p>Breakout C: Sustainability: Maintaining a National Research Ecosystem</p> <ol style="list-style-type: none"> 4. What policies are needed to address the long-term challenges, <i>related to payment or funding of research</i>, of maintaining a self-sustaining research ecosystem? 5. What policies and policy-making mechanisms are needed sustain and promote innovation within a national research ecosystem?

Following each breakout session, results of the session were reported out and captured by scribes for use in the final report.

Results

This section provides the principle findings, outputs, conclusions and implications of the 2015 and 2016 APIs. The primary output of both meetings included a manuscript to be published in the *Journal of the American Medical Informatics Association (JAMIA)*.

2015 AMIA Policy Invitational

API2015 resulted in numerous consensus recommendations, developed by a wide spectrum of stakeholders. Following the conclusion of API2015, several members of the Planning Committee reorganized into subgroups to identify the most important and actionable recommendations based on the meeting's main themes of: (1) improving EHRs for direct patient care – clinician and patient experience; (2) improving EHRs for population management; and (3) improving EHRs for research and innovation.

These subgroups were led by three AMIA members and the lead author of what would be a manuscript over a year in the making. Numerous meetings were held by each subgroup, which informed several additional meetings held by the manuscript authors. These authors included:

- (Primary) Julia Adler-Milstein, PhD, Associate Professor of Information, School of Information and Associate Professor of Health Management and Policy, School of Public Health, University of Michigan
- Peter J. Embi, MD, MS, FACP, FACMI, President & CEO Regenstrief Institute, Associate dean for informatics and health services research and professor of medicine at the IU School of Medicine
- Blackford Middleton, MD, MPH, MSc, Chief Informatics & Innovation Officer, Apervita, Inc.
- Neil Sarkar, Director of the Brown Center for Biomedical Informatics, Associate Professor of Medical Science, Associate Professor of Health Services, Policy and Practice

A manuscript has been accepted by JAMIA and will publish April 5, 2017 under the title, “Crossing the Health IT Chasm: Considerations and Policy Recommendations to Overcome Current Challenges and Enable Value-based Care.” Table 4 includes a set of goals and corresponding recommendations to close this “chasm.”

Table 4: Summary Findings and Recommendations

Domain	Goal	Recommendations
Goals and Policy Recommendations to Address Gaps in the Patient Domain	<i>Improve patient access to clinical data</i>	<ol style="list-style-type: none"> 1. Clarify HIPAA to state that patients have a right to all data maintained by a covered entity’s designated record set; or, to a digital copy of their legal medical record through guidance by OCR. 2. Include in EHR certification and provider accreditation that patient data is transmitted in a manner that preserves computability.
	<i>Improve patient access to data generated by mHealth and related technologies</i>	<ol style="list-style-type: none"> 1. Extend HIPAA or HIPAA-like requirements to non-covered entities (NCEs). If not politically viable, convene industry stakeholders to develop coordinated “codes of conduct.” 2. Monitor widespread and persistent market failures to address data inaccuracy and poor usability that put patients at risk.
	<i>Enable patient participation and contribution to care delivery and health management</i>	<ol style="list-style-type: none"> 1. As the market for mHealth and other consumer-facing applications matures, encourage multi-stakeholder coordination of standards within classes of patient-generated health data and eventually incorporate into health IT certification standards.
	<i>More readily engage patients in research</i>	<ol style="list-style-type: none"> 1. Through public-private collaboration, pursue a digital infrastructure, including commercial EHRs, that: <ol style="list-style-type: none"> a. Enables machine-readable consent and specimen tracking; and b. Alerts clinicians and patients about available research opportunities 2. Incentivize clinicians and healthcare systems to partner with researchers to identify potential clinical research candidates using tools such as phenotyping algorithms.

Domain	Goal	Recommendations
Goals and Policy Recommendations to Address Gaps in the Provider Domain	<i>Enable interoperability within an API context</i>	<ol style="list-style-type: none"> 1. Federal officials work to ensure that APIs are standards-based and published in the public domain as a component of the federal Health IT Certification Program. 2. APIs include core data elements that have received community endorsement resulting from collaborations between specialty societies, informatics experts, standards developers and health IT vendors. 3. National Library of Medicine, should house and manage metadata crosswalks once standardization across clinical societies for common data sets has been established.
	<i>Develop and implement a documentation simplification framework</i>	<ol style="list-style-type: none"> 1. Develop an empirically-based regulatory compliance framework for documentation simplification that: <ol style="list-style-type: none"> a. assesses costs and benefits of standardizing and collecting specific, data elements b. places higher value on elements with minimal collection burden c. places higher value on documentation that supports patient care and improved outcomes
	<i>Develop and implement quality measure simplification</i>	<ol style="list-style-type: none"> 1. Deconstruct quality measures in an electronic environment by developing common data elements required for quality measurement, resource use and research. 2. Collect, extract and report using a common data model of elements that are high value to multiple stakeholders.
	<i>Pursue documentation-relevant reimbursement redesign</i>	<ol style="list-style-type: none"> 1. Revise E&M coding guidelines and consider removing prescriptive components of time-based billing. 2. Aggressively pursue alternative payment models that have demonstrated benefits to cost and quality.

Domain	Goal	Recommendations
Goals and Policy Recommendations to Address Gaps in the Researcher & Innovator Domain	<i>Create a policy framework for research and innovation</i>	<ol style="list-style-type: none"> 1. Cross-agency collaboration to produce a framework that includes: <ol style="list-style-type: none"> a. ‘Common Rule’ updates to facilitate secondary use of data for research b. Common DURSAs c. Common, enforced technical functionalities and specifications based on standard APIs d. Data portability from HIPAA covered entities
	<i>Develop and implement an app vetting process</i>	<ol style="list-style-type: none"> 2. Public-private collaboration to develop a process that ensures a minimum level of privacy, security, safety, and effectiveness while not hampering innovation.

In addition to publication, this report will be the subject of a briefing held April 5, 2017 on Capitol Hill, wherein the manuscript authors will present these findings and recommendations to Senate and House staffers and other stakeholders. It is hoped that this paper can inform ongoing development of CMS, ONC, AHRQ and NIH programs under the new Administration, and help identify potential areas for further legislation needed to achieve consensus goals. Additional materials will be developed as part of this effort, and AMIA is happy to supply those materials to AHRQ upon request.

2016 AMIA Policy Invitational

API2016 resulted in several recommendations focused on reimaging the research / practice relationship and better enable evidence-generating medicine (EGM) at local, regional and national levels. A manuscript is currently in development with the assistance of the following reviewers:

- Peter Embi, Regenstrief
- Chuck Friedman, University of Michigan
- Joseph Kannry, Mt. Sinai
- Rachel Richesson Duke
- Neil Sarkar, Brown University
- Jessica Tenenbaum, Duke

At present, the following findings and recommendations are summarized below. These are subject to change, and will be further developed in a subsequent publication through JAMIA.

Summary Findings and Recommendations

Topic	Findings	Recommendations
Nodes: Evidence Generation at the Local Level	<p><i>Clinicians, patients and health systems are not routinely engaged in research and often treat it as a separate component from care delivery.</i></p>	<p>1. Incentives are needed for key stakeholders to prioritize research at the point-of-care</p> <ul style="list-style-type: none"> A. Federal policies should incentivize health systems and clinicians to engage in research activities through reimbursement policies, funding announcements, and other organizational incentives. B. Federal policies should reward patients, clinician and health system participation in research with access to raw and curated results, and enable them to contribute to research design. C. A review of and potential reinvigoration of Practice-Based Research Networks should occur.
	<p><i>Current regulations present real and perceived barriers to evidence generation at the local level.</i></p>	<p>2. Regulatory modifications are needed to facilitate research at the point-of-care</p> <ul style="list-style-type: none"> A. The Common Rule should not restrict HIPAA Covered Entities to engage in non-interventional research using EHRs and other health IT-generated data; such research should be permissible under HIPAA treatment, payment, and health care operations. B. The Precision Medicine Initiative Privacy and Trust Principles should serve as a framework for local, regional and national-level privacy and confidentiality laws / regulations. Current laws and regulations should be modified to more closely reflect these Principles. C. These recommendations notwithstanding, federal officials should develop comprehensive guidance, education, and specific examples of the kinds of research beyond the purview of the Common Rule.

Topic	Findings	Recommendations
	<p><i>Technical work on data standards and certified health IT functionality is needed to enable EGM and local learning health systems.</i></p>	<p>3. Investment in the “basic science” of health IT is necessary</p> <p>A. The HHS Office of Civil Rights (OCR) should refine the definition of a HIPAA Designated Record Set (DRS) and ONC should explore ways to allow patients to have a complete digital export of their structured and unstructured data within a Covered Entity’s DRS in order to donate their data for research.</p> <p>B. In order to facilitate data re-use and interoperability, regulators should work with stakeholders to develop granular data specifications, including content and metadata, and harmonized standards to support research for use in the federal health IT certification program.</p> <p>C. Research organizations and the professional societies that support researchers should develop functional and technical requirements of EHRs and other health IT modules to facilitate research at the point of care and EGM.</p>
<p>Networks: Clinical Research Across Organizations</p>	<p><i>Research workforce, including Institutional Review Board (IRB) staff, data stewards and data curators often lack a fundamental understanding of informatics-driven research methodologies.</i></p>	<p>1. Informatics-driven research requires improved workforce competencies</p> <p>A. Informatics training programs at the NLM, AHRQ and other agencies should be expanded.</p> <p>B. The certifying body to IRBs should require minimum levels of informatics competencies are represented within all IRBs.</p>

Topic	Findings	Recommendations
	<p><i>Incompatible systems resulting from insufficient standards for detailed clinical data and variation between data use agreements create enormous data sharing challenges and tremendous administrative burden to multi-site research.</i></p>	<p>2. Convergence of technical standards and governance can facilitate multi-site research and reduce legal burden</p> <p>A. Federal agencies should encourage development of data standards at the intersection of care delivery and research, including voluntary patient identifiers, and advocate for their adoption in all organizations that aspire to be LHS.</p> <p>B. The NIH Health Care Systems Research Collaboratory should continue as a project of special focus to improve the conduct and utility of pragmatic clinical trials. Collaboratory activities to-date should be evaluated and funding should support positive aspects of the evaluation.</p> <p>C. Funding agencies should convene awardee stakeholders to develop a series of standardized data use agreements to be used for different categories of clinical research and these standardized data use agreements should be compulsory as a condition of funding.</p>
	<p><i>There are systemic barriers to team-based research, which is core to networked discovery.</i></p>	<p>3. Participating in multi-site research should provide professional advancement and incentives should exist for those who demonstrate a capacity to succeed in teams.</p> <p>A. Funding and institutional advancement should encourage multi-site research with opportunities for shared authorship.</p>
<p>Sustainability: Maintaining a National</p>	<p><i>The effectiveness of our national research networks is dependent on an inefficient and rigid procurement system and outmoded human resource policies.</i></p>	<p>1. Federal planning, procurement and hiring authority must be as agile as the projects they seek to support</p> <p>A. The use of Other Transaction Authority (OTA) and Scientific and Technical hiring authority should be broadened for use by funding agencies for national-level research networks.</p> <p>B. Federal research portfolios should reflect investment portfolios seen in the financial sector, including a range of low-, medium- and high-risk / high-reward projects.</p>

Topic	Findings	Recommendations
	<p><i>The value of national research must extend beyond funders and awardees.</i></p>	<p>2. Federal policy must improve the supplemental use of research data for multiple stakeholders to derive value</p> <p>A. Grants that require Data Sharing Plans should treat them as a “scorable” element of the application and informaticians should be part of the review process.</p> <p>B. Funds should encourage multi-agency collaboration on research, and require translational phases earlier in the award cycle. The NCATS and the CTSA Program should be viewed as a potential coordinator such projects.</p> <p>C. A portion of funds must be dedicated towards implementation of research findings.</p>

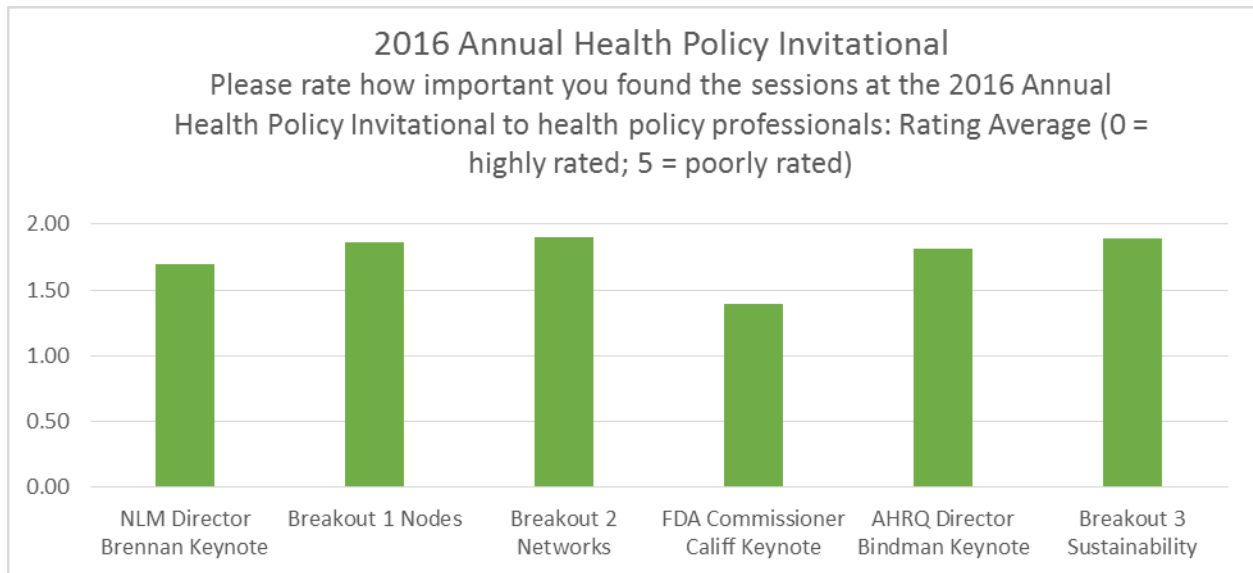
While these findings and recommendations are tentative, AMIA anticipates they will have far-reaching implications for the intersection of care delivery and clinical research. We anticipate that government stakeholders, including AHRQ, FDA, NIH, CMS, ONC, PCORI and others will be very interested in the final result, and we are happy to make the manuscript and other materials available after completion.

Additionally, AMIA fielded a survey to 2016API attendees. An overview of questions and responses is below:

Summary of Attendee Ratings / Evaluation

Generally, Keynotes and Breakouts were highly rated, with respondents (30) giving FDA Commissioner Califf, NLM Director Brennan, and AHRQ Director Bindman higher than average ratings.

Figure 1: 2016 Health Policy Invitational



Question 2: Please comment on the breakout session format, listing your likes, dislikes, and suggestions for improvement. Representative highlights include:

- Small groups and mixing up was successful;
- More facilitation to ensure that all voices were heard (even calling on quiet people) recommended;
- Needed more time to discuss;
- Having a policy expert in each breakout would be helpful to keep discussion on track;
- Need projectors for breakout rooms so that compilation of report-out slides could be done in real time.

Question 3: How might you incorporate what you learned at the 2016 Annual Health Policy Invitational into your professional life? Some highlights include:

- I have not been actively involved in policy discussions but from this policy invitation, I can begin to see the benefit. I believe that I will have to become more involved in policy discussions and represent the views and challenges of my institution.
- Already shared with my institution. Completely relevant to the issues we are facing. Hope to see this work continued/moved along.
- Participating at the Policy Meetings has been a lesson on the multiplicity of perspectives and asymmetry of abilities. People are good-willed and want to help but most of everyone is more biased towards the problems they face than they realize. They are also not very good at blending together the different concerns or suggestions. Bold leadership/facilitation is required to listen to the disparate stakeholders and narrow ideas down to actionable common denominators. Informatics people are acutely aware (not

rarely more acutely than they wished!) of how policies impact them, but they are not very skilled in reversing the table and providing guidance for new policies or changes in policies.

- I already have. The breakout discussions were corroboration for some of the discussions I already had underway with some of the other participants. The AHRQ priority talk by Andy Bindman was very useful, and I plan to summarize key points and distribute to selected colleagues.

Based on this feedback, AMIA plans to organize breakout groups in a similar fashion in the future. However, we will explore ways to facilitate breakout sessions more effectively and organize breakout outputs more efficiently. We also hope to develop findings and recommendations within 30 days of the conference, as a means to keep participants engaged after the meeting, while developing multiple lines of deliverables (white paper, JAMIA submission, etc.).

List of Publications and Products

These meetings have been tremendously impactful and important for the attendees of the meeting, and the health informatics community as a whole. Publications are expected in April 2017, and before Q3 2017, respectively.

AMIA staff developed two primary websites to support API2015 and API2016. The API2015 site can be found here: <http://api2015.strikingly.com/>

API2016 site can be found here: <https://connect.amia.org/communities/community-home?CommunityKey=8fe48158-0b9f-4cd5-bbc3-9976c778d07d>

Additional electronic resources generated as part of the planning and execution of these meetings can be found here: <https://www.amia.org/public-policy/public-policy-events>

AMIA will provide information on all published manuscripts, and we are happy to provide information on additional activities and collateral that are developed in support of the meeting findings and recommendations.

AMIA appreciates the support of AHRQ, and we look forward to continued partnership in the future.

ⁱ Thomas H Payne, Sarah Corley, Theresa A Cullen, et al; Report of the AMIA EHR-2020 Task Force on the status and future direction of EHRs. J Am Med Inform Assoc 2015; 22 (5): 1102-1110. doi: 10.1093/jamia/ocv066

ⁱⁱ Embi and Payne paper

ⁱⁱⁱ (available at: <https://connect.amia.org/communities/community-home?CommunityKey=8fe48158-0b9f-4cd5-bbc3-9976c778d07d>)