

AHRQ 2012 Annual Conference: Roundtable Discussions for Health IT Grantees

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
<http://www.ahrq.gov>

Contract No. HHS-290-2009-00014I

Prepared by:

Booz Allen Hamilton
Massachusetts eHealth Collaborative

Authors

Nalini Ambrose
Mark Belanger
Rachel Kell
Amanda Long
Seamus McKinsey
Allyson Miller
Elizabeth Miorin

**AHRQ Publication No. 13-0017-EF
September 2012**



Table of Contents

1. Meeting Summary.....	1
2. Usability and Health IT Design	2
3. Institutional Review Boards (IRBs).....	4
4. The Use of Mobile Technologies to Improve Health Care.....	6
5. Incorporating Health IT and Research Methodologies Into Clinical Workflow	9
Appendix A: Discussion Guides.....	11
Appendix B: Participant Information.....	13

1. Meeting Summary

On September 9, 2012, the Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health IT (NRC) hosted roundtables for health information technology (IT) grantees focused on research and health IT-related topics selected by grantees. The purpose was to provide grantees an opportunity to share best practices, lessons learned, and ask questions in a semistructured environment. The final roundtable sessions were determined with direct input from the health IT grantees. The four discussion topics were as follows:

- Usability and Health IT Design
- Institutional Review Boards (IRBs) in Health IT Research
- The Use of Mobile Technologies to Improve Health Care
- Incorporating Health IT and Research Methodologies Into Clinical Workflow

Each of these topics was discussed at a roundtable discussion; one group of attendees participated in a discussion that included three topics: “Usability and Health IT Design,” “IRBs in Health IT Research,” and “The Use of Mobile Technologies to Improve Health Care,” while another group of attendees participated in the session on Incorporating Health IT and Research Methodologies Into Clinical Workflow. Each table included six to eight AHRQ grantees or members of their project team. AHRQ TA team members facilitated the discussions. Facilitators used a set of questions to guide the discussion for each topic area. Please refer to Appendix A for a full list of questions developed for each of the aforementioned topics.

2. Usability and Health IT Design

**Facilitator: Rachel Kell, M.P.H., Massachusetts eHealth Collaborative,
AHRQ NRC Technical Assistance Lead**

Background

Six participants, including principal investigators and project managers, attended the “Usability and Health IT Design” session. Attendee names, contact information, and grant project titles are included in Appendix A: Participant Information.

Although health IT has been shown to have a positive impact on health care quality, barriers to achieving this impact remain. One important factor that can mitigate the impact of health IT is design. The field of human factors and ergonomics—defined by the International Ergonomics Association as “... the scientific discipline concerned with the understanding of the interactions among humans and other elements of a system, and the profession that applies theoretical principles, data and methods to design in order to optimize human wellbeing and overall system”—can contribute theories and methods to better understand human-computer interaction and contribute to the design of more usable health IT systems. Incorporating these methods into health IT research may lead to the design of more effective health IT systems.

Discussion Summary

The main themes based on grantee comments are described below.

Behavioral Health/Psychiatry Data

Behavioral health data can be extremely sensitive, and data storage and transmission systems require a great deal of thought and planning when created. In the past, there have been challenges related to how providers compile and use this data and how doctors act upon the data they receive. Researchers are currently working to design a visualized model to support analyzing behavioral health data and interpreting the data appropriately. These models will likely help create more robust systems with increased usability. The current results are encouraging, but this model cannot be tested in a real system and must only be tested in a contained space. This poses problems when integrating the system into real practices. Behavioral health data also contain numerous variations that can cause difficulty when calibrating the data and can result in provider misinterpretation. This, in turn, could lead to errors and inappropriate use of the data. It is important to keep these factors in mind when creating tools to improve usability.

Decision Support Tools

Decision support tools have proven to be effective in providing guidance and assistance to providers that could improve overall quality of care. There have been recent studies surrounding the use of decision support tools to guide providers on prescribing antibiotic medications. One study showed that the use of these tools reduced the use of broad-spectrum antibiotics versus narrow-spectrum antibiotics. The study also found that having standard orders improved outcomes in many cases, and it was shown that decision support tools do improve a large number of patient outcomes. The current issue is encouraging staff to use these tools in real-world settings. Many practices provide coaching and site visits as well as presenting tutorials to demonstrate templates and tool functionality. The use of these tools can streamline provider workflow and prioritize care so that physicians are not overburdened, often resulting in improved usability.

Population Health Tools

Many grantees have been involved in the development of population health tools, specifically tools for cancer screening. When developing these tools, it is helpful to involve team leaders in the design process to assist with decisionmaking. The design team can then display mock-ups of the tools to team leaders and make changes using an iterative process. The tools are typically rolled out initially to a test site that provides feedback and suggests adjustments, which are then incorporated before the tool is implemented across multiple practices. A discussion participant noted that the biggest factor in the development of these tools is minimizing the number of “clicks” required to access aspects of the tool. Minimizing the clicks makes the tool more convenient and decreases the time needed to successfully use and implement it.

Electronic Health Record (EHR) Customization

Many new health IT tools use a system that extracts keywords or data from EHRs so providers do not need to spend time sorting through individual EHRs to find information. However, many EHRs can be customized to use specific acronyms, a feature which creates challenges for these tools. This customization was created to ease practices’ move from paper to electronic systems so that they could continue to use the same acronyms and abbreviations. These customized acronyms increase the time for template creation for health IT tools and can make it difficult for the tools to extract data and measure outcomes because the data dictionary required to map the various terms to a common term can be quite extensive. Research is underway regarding bridging common terms and acronyms to ease this process, but it will likely be a long process to create consistency in EHRs and health IT tools.

Usability Metrics

Usability metrics are key to assessing the impact of design processes and tools. Quantitative metrics can be difficult to track and are used to observe changes in performance. With proper tools and data management, metrics can be effective for tracking improvement. Researchers have recently used metrics to determine the effectiveness of tools that alert physicians to inconsistencies in a patient’s EHR. The tool tracks the number of times physicians change their behavior based on an alert they receive notifying them of an inconsistency. This metric demonstrates the effectiveness and use of the alert system.

Qualitative feedback is more difficult to measure. It commonly consists of practices holding conversations with all parties involved in the design process to receive feedback and suggestions to improve impact and outcomes.

3. Institutional Review Boards (IRBs)

**Facilitator: Mark Belanger, M.B.A., Massachusetts eHealth Collaborative,
AHRQ NRC Technical Assistance Lead**

Background

Six participants, including principal investigators and project managers, attended the “Institutional Review Boards (IRBs)” session. Attendee names, contact information, and grant project titles are included in Appendix A: Participant Information.

A critical milestone in many health IT research projects is obtaining approval of the research study from an IRB—a board that reviews research involving humans as subjects. IRBs can approve, require modification to, or disapprove research activities covered by the U.S. Department of Health and Human Services (HHS) and the Food and Drug Administration (FDA) Protection of Human Subjects Regulations. The unfamiliarity of IRB officials with the nature of health IT study issues can lead to extended IRB review times. In addition, although there is a growing understanding of the particular needs and issues of health IT research studies by IRBs, grantees have expressed that it is beneficial for research teams to share their experiences, best practices, and lessons learned with one another when dealing with the IRB process.

Discussion Summary

The main themes based on grantee comments are described below.

Challenges and Issues in the IRB Process

Discussion participants indicated that IRBs are designed for the safety of clinical trials, but they can lack the protocols and procedures to deal with the electronic data exchange that many clinical trials employ. Most notably, compliance and information security are often not appropriately addressed in an IRB.

In light of the disparity in the purpose and capability of IRBs, participants indicated that an IT subgroup could be useful in the IRB process. This allows for individuals who are more technologically savvy to be involved in the IRB process so that the same questions surrounding IT do not have to be addressed and explained multiple times. It was noted that a subgroup to deal with IRB data exchange issues was just created at one site and has led to some resolution of issues. IRBs have also become much more restrictive recently relating to what individuals can and cannot do without IRB oversight and surrounding the required level of consent.

Tips and Best Practices for Successfully Completing the IRB Process

Discussion participants indicated that it has been helpful to educate IRBs actively. Individuals have found it beneficial to spend time educating the IRB on the focused topic matter, given that they are very busy individuals. Although it is often difficult to educate the IRB on security and technical issues, doing so has helped simplify the types of questions that come up throughout the process. Participants have also found it helpful to work through a limited data set. They have circumvented issues that arise in receiving IRB approval by keeping medical information de-identified. In some cases, re-identification of data is required, which adds significant complexity.

The participants discussed that if researchers seek to publish findings, an IRB is required. If a practice is using the information internally and does not plan to publish it, no IRB is required as long as the research is safe and poses minimal risk. A large IRB issue that was discussed was whether a practice needs to

identify and inform patients if they are participating in research. It was noted that general patient consent is sufficient as long as data is de-identified.

In summary, the key points made about successfully navigating the IRB approval process during the session include the following:

- Establish a liaison within the IRB to help with health IT projects and to be available for questions and clarifications.
- Educate the IRB on how health IT research projects are different from other projects that they review:
 - Projects have goals aligned with IRB—improving quality and safety of health care.
 - Projects usually deal with information flow—not actual patient treatment.
- Circumvent patient privacy protection issues by using de-identified data where feasible.
- Give yourself plenty of time to complete the IRB process and submit information as early as possible.

4. The Use of Mobile Technologies to Improve Health Care

Facilitator: Nalini Ambrose, M.S., P.M.P., CPHQ, Booz Allen Hamilton, AHRQ NRC Technical Assistance Lead

Background

The seven participants who attended the Usability and IRBs discussions also attended “The Use of Mobile Technologies to Improve Health Care” session. Names, contact information, and grant project titles are included in Appendix B: Participant Information.

The use of mobile technology in health care is growing, with the potential to promote behavioral change, transform patient-provider-caregiver relationships, and change the way health care is delivered. Mobile technology uses a variety of applications to help reduce wait times in doctors’ offices, improve providers’ access to patient information, diagnose a patient condition quickly, prescribe medications, and improve patient outcomes.

With the increased use of mobile technologies in today’s health care environment, there are also concerns regarding the privacy and security of patient information shared over wireless networks, as well as considerations for the protection of patient information. During this period of evolution, the risks and benefits of using mobile technologies to further health care delivery need to be weighed continuously to address and overcome potential barriers to the future expansion of this technology to improve health care delivery and services.

Discussion Summary

The main themes based on grantee comments are described below.

Methods to Deliver Health Care Services Using Mobile Technologies and Lessons Learned

Vendors are currently developing and enhancing applications for mobile technology use in relation to chronic disease. There has been significant focus on developing the actual technology needed, but less attention given to how the applications are being used to deliver health care services. Discussion participants noted that to ultimately result in a successful implementation, it is important to consider how the technology is used. A notable lesson learned through experience is that a mobile monitoring device is only successful if a coordinated response is in place; it is insufficient to simply use the technology.

The participants discussed the use of mobile technologies to monitor heart failure. A participant cited a trial conducted from 2008 to 2010 in which patients participating in the study had a history of heart failure and were typically over the age of 65. Study participants answered a series of seven questions each day using a standard telephone, and this information flowed into a Web-based program for physician review. In light of this procedure, the response to the reviewed information was variable and nonstandard. Lessons learned from this trial indicated that the outcome would have been more successful with a standardized response loop. In addition to the variable responses by providers when processing information, there were also barriers to success on the patient side. Patients often did not take self-management as seriously as was hoped. They would fail to answer the questions daily, either because the process was not engrained into their routine appropriately (i.e., they were recently diagnosed) or they were not mobile enough to obtain the information needed (i.e., weighing themselves on a scale or having adequate vision to enter numbers on the phone).

Mobile Technologies Currently Being Used to Improve Health Care

According to discussion participants, a large amount of mobile technology in health care delivery consists of cell phone use. From some participants' experiences, even underserved populations have cell phones and are also likely to have text messaging service. In light of the widespread use of cell phones, participants did recognize an age issue in terms of texting. Although there may not be an economic gap in the use of cell phones, older patients often have a more difficult time understanding how to work text messaging or being able to type on a cell phone.

Participants discussed the implementation of short code messaging on cellular phones to improve health care delivery. These messages are being used for appointment and medication reminders and come with encoding that states "if you want to receive this or if you want to say YES or want to STOP then type these 4 numbers." There are some problems with short code messaging as certain plans or phones cannot receive these codes due to compatibility issues. There are some ways that this can be worked out, including having the sponsor send the messages.

Participants also discussed certain types of devices that the patient can wear to track exercise and food intake. Such tracking applications have been developed, but some have been found to drain cell phone batteries and are not currently practical. Researchers are working to develop a way to turn the applications on and off so they are more useable. There are also separate devices that track this information. One participant talked about one such device called the "Fitbit" that is currently available to monitor a person's activity, weight, and eating and sleeping habits. The "Fitbit" is a wireless tracker clipped onto the user that calculates the steps like a pedometer. This information is then uploaded to the computer or mobile phone; food intake can also be inputted into the application. It was discussed that the group using this device is already onboard with managing its health and has the technology to do so. The remaining problem is how to get the underserved populations to use these technologies to manage their eating habits and fitness. It is understood that people have very complex lives, and adding one more activity that is not their priority will fall to the bottom of the list. Participants indicated that the question at hand is how they can deliver the information to people to provide sufficient value to them that they will want to receive it. In addition, they also want the recipients to understand the cultural context of the information they are receiving; it is not just a matter of educating users but also of urging them to take ownership of their personal health management.

Special Considerations for Mobile Devices

One participant discussed a project with which he is currently engaged, involving individuals in the 20-year-old age group who receive services at a community health center. Data from the study indicate that many of these individuals are interested in information on sexually transmitted diseases (STDs) and how to manage them within their social life. The project is currently seeking to determine *what* information these individuals seek and to understand *how* they seek and process health information. Project coordinators are planning to develop a Facebook application to address the needs and desires of these individuals. Given the nature of the subject matter, there are privacy, security, and confidentiality measures that must be addressed in developing this application. There may be privacy concerns if a sensitive test result is dispensed through the Facebook application. The ability of messages to be widely dispersed will also have to be addressed in developing the application. This led to a discussion of an existing service called "The Hook-Up," which is a text messaging system that teens can sign up for online if they are too embarrassed to go to a clinic. This system sends messages about sexual health, such as information about STDs and when to get tested.

New and Upcoming Regulations Specific to Mobile Technology

The FDA is regulating the use of mobile devices for medical purposes to ensure mobile instruments are recording and reporting data accurately. For example, one of the participants indicated that the FDA will

be issuing regulations regarding beta transmission for blood pressure monitoring to make sure devices are properly calibrated. The use of mobile technology creates a logistical barrier with IRBs when these technologies are included in research protocols because they are often not well understood.

The topic of reimbursement was also discussed by participants. Currently, physicians are not reimbursed for sending or receiving health care-related text messages. Although they are not monetarily reimbursed, the information gathered from text messages can be analyzed by physicians or other office staff to recognize trends. Pennsylvania has hired nurses to manage data and review the information collected from mobile technology. Accountable Care Organizations (ACOs) will require more efficient methods for reviewing and analyzing this information. Office providers are not reimbursed for remote monitoring, so this is an issue that must be addressed for implementation of mobile technology to be successful.

Current Health Care Initiatives and Grants in the Area of Mobile Technologies

Discussion indicated that the participants believe that most research surrounding mobile technology is vendor-based and would not be funded by AHRQ or a similar agency. Participants indicated that it would be beneficial to have a study to show how patients would use mobile technology versus going to a doctor's office. One participant stated that more than 40,000 mobile technology applications in health care currently exist—a testament to the development of mobile technologies for health care.

Notable talking points surrounding the use of mobile technologies to improve health care mentioned during the session include the following:

- It is important to pay attention to how the technology is used.
- A standard protocol and coordinated response must be in place following the use of mobile technology.
- Engraining the notion of self-management is important for patients using mobile technology.
- The predominant use of mobile technology in health care delivery has been through cellular phones, particularly short code messaging.
- There is no significant economic gap in the use of cell phones; however, there is an age disparity.
- There are issues with privacy and security given the nature of health care information and the ability to easily forward information through mobile technology.
- The FDA is regulating the use of mobile devices for medical purposes to ensure mobile instruments are recording and reporting data accurately.

5. Incorporating Health IT and Research Methodologies Into Clinical Workflow

Facilitator: Sandra Lesikar, Ph.D., P.M.P., Booz Allen

Background

Eight participants, including grantees and other grant staff, attended the “Incorporating Health IT and Research Methodologies into Clinical Workflow” session. Names, contact information, and grant project titles are included in Appendix A: Participant Information.

The appropriate implementation of health information technologies and research methodologies into clinical workflow is critical to the success of research projects. Technologies such as clinical decision support tools, integrated voice response (IVR) systems, and other applications or screening tools are being increasingly used as part of clinical research projects. Technologies that provide computerized clinical information to clinicians and/or patients are being implemented to improve health care quality and patient safety. However, their impact on quality and safety may be compromised due to a lack of integration of health IT into clinical workflow in a way that supports the workflows among organizations, within clinics or within patient visits or episodes. Health IT must be designed to fit the specific contexts—practice and patient types—and must include standard descriptions of workflow for care processes.

Discussion Summary

The main themes based on grantee comments are described below.

Health IT Implementation in a Clinical Setting

In general, there are two focus groups or stakeholders to consider when implementing health IT in a clinical setting: physicians and patient users. Both need to be interviewed and incorporated into the design process, but it is important to note that each have countervailing interests. The ease of both the user experience and clinical use of the data provided by the user must be taken into consideration. One must balance the user’s and the clinician’s point of view. Clinicians want decision support and actionable information, and if the right information is provided, the quality of care can be improved. The challenge lies in getting patients to provide the information in a way that will be usable for the clinician and easy for the user to provide accurately. Question design and survey flow play large roles in this process. The benefits of a linear survey design where patients follow each screen through to the next or nonlinear survey design where patients are sent into sub-surveys based on responses must be weighed.

In clinical settings, researchers and clinicians must take into account not only the software strengths of the tool but also the clinical strengths and weaknesses. Issues can arise because a clinical workflow is too inflexible or disorganized, and a potential health IT intervention may be too invasive. To make sense of the data and make recommendations about altering either the software or clinical workflow, one must understand the idiosyncrasies of each clinical site and how they contribute to the tool’s performance.

Developing generic software that can be customized is important for incorporating different technology systems into clinicians’ workflow. With changing payment incentives and organizational structure on the horizon, there is a need to keep technology flexible to allow clinicians to customize and integrate the new technology into evolving workflows. Providers must be willing to accept the implementation of health IT in order for it to be effective.

Stakeholder Involvement in Implementation

Much of the difficulty in implementing new health IT is not due to the technology itself but from acquiring buy-in from all the stakeholder groups. It would be easier to generate buy-in and support for research initiatives if there was an additional layer of support to assist providers in performing the extra work required to participate in the research. For example, a medical assistant could be trained to take some of the burden associated with the intervention. For this to happen, there needs to be a cultural shift in today's care model so other members of a care team are empowered to make decisions and suggestions related to process improvement.

The involvement of stakeholders at all levels early in the development of the technology is critical. From the first stages of prototype development on through pilot testing and implementation, input from the target users and providers implementing the systems is critical. Another best practice identified by grantees was to identify a "champion" stakeholder at the beginning of the implementation design that will be involved in the entire lifespan of the development and implementation who will serve as an example and advisor for the other stakeholders in the trial. Some grantees identified a tension between wanting to show stakeholders the program under development early on versus waiting for better presentation and technology development later on, but in general favored early engagement to incorporate input as soon as possible.

Measuring Usability and User Experience

Grantees identified many measurement options available for testing usability and user experience of tools they have under development. These typically involved a qualitative assessment of the workflow implications for tools to be implemented into clinical settings of providers, as well as a usability measure for the patients using the tool. Grantees found standardized questionnaires and follow-up debriefings from a trained psychologist or human matters expert to be especially helpful. These debriefings involve the participant talking out loud through using the tool, identifying any problems or nuisances while the psychologist or human matters expert fully documents the interview. Another grantee suggested videorecording the participant experience to capture their facial expressions to understand how they move through the tool and incorporating that analysis into the qualitative report as a pretest for usability.

Use of the "Cloud"

Some grantees wondered about the feasibility of using the cloud to store and analyze their data. Although the cloud presents many potential benefits, including portability, it also presents security challenges. When attempting to ensure data security standards compliant with HIPAA, the risks the cloud presents may outweigh the costs.

In summary, the research methodology and implementing health IT into clinical workflow strategies mentioned during the session include the following:

- Involve stakeholders early in the design process.
- Take into account clinical strengths and weaknesses when implementing new technology.
- Use flexible models that can be incorporated into a variety of clinical settings.
- Acquire stakeholder buy-in.
- Identify a champion stakeholder who can serve as a model for and advise other programs in multi-program initiatives.
- Conduct qualitative interviews with trained professionals or video software to identify improvements.
- Advise caution when using the cloud to store patient data.

Appendix A: Discussion Guides

This appendix includes questions that were developed for each topic area to guide the grantee discussions. Not all questions may have been discussed during the sessions.

Usability and Health IT Design:

Characteristics of Good Design

- In your health IT research project, what have you found to be good health IT design?
- How have you defined “good” health IT design (e.g., more effective, more efficient)? How do you measure or evaluate health IT design?
- In your experience, does “good” design differ—
 - Depending on the *application* (electronic health records [EHR] versus personal health record [PHR] versus other e-tools)? If so, how?
 - Depending on the *care setting* (e.g., mental health, geriatric, pediatrics)? If so, how?
 - Depending on the *audience/user* (clinicians versus administrative staff versus patients)? If so, how?
 - Depending on its *purpose* (to support decision making versus scheduling)? If so, how?
- How does design impact usability of a health IT system?

Opportunities for Improvement

- What design problems have you come across in your health IT research projects?
- What design issues have you seen have the greatest impact on—
 - Workflow?
 - Quality of care?
 - Productivity?
- How do specific usability issues contribute to these problems?
- What solutions have you found for overcoming these problems?

Usability Testing and Evaluation

- What design processes have you used in your research project to design usable health IT systems?
 - Was your approach successful? Why or why not?
- Have you evaluated the usability of the health IT system developed or implemented in your research project?
 - If so, how did you conduct this evaluation? If not, what ideas do you have on how this could be accomplished?
 - Was your approach successful? Why or why not?
- What are other usability evaluation methods?
 - Which have you found to be the most useful in evaluating the usability of health IT systems?
- What are some key usability metrics that you have used? How have you tested and evaluated these metrics?

Institutional Review Boards (IRBs):

- Have you been through a successful IRB review? If so, can you provide a brief overview of the IRB process and steps involved, as well as any best practices or tips you can share with the group regarding your success in the IRB process?
- Have you or others on your research team experienced challenges or issues during the IRB application and approval process, and, if so, what methods or techniques were used to mitigate these challenges? What were the lessons learned?
- Are there other recently revised methods that can be followed for the IRB process that might help simplify steps involved?
- What are some IRB considerations for online recruitment, data collection, data storage, data disposal, and new technologies?
- Are there any key pieces of legislation or initiatives pertaining to privacy and security that health IT researchers should be focusing on that may have an impact on the IRB process?
- In your experience, what circumstances might necessitate a Privacy Board or IRB to use an expedited review procedure to review requests for a waiver or alteration of the Authorization requirement?

The Use of Mobile Technologies to Improve Health Care:

- What are some of the methods that can be used to deliver or enhance health care services using mobile technologies (e.g., smartphones—texting, emailing, sending graphical images to aid diagnosis; tablet/phone technology at the point of care; remote patient monitoring systems)?
- Are there any ways in which you are currently using mobile technology to provide or improve health care delivery?
- What are some of the special considerations for mobile devices (e.g., encryption requirements, Health Insurance Portability and Accountability Act of 1996 [HIPAA] issues, GPS capability, and health data protection/security)?
- What are some of the new or upcoming regulations specific to mobile technology?
- What are the pros and cons of using mobile technology for health care? How can the cons be overcome for successful use?
- What initiatives and grants currently exist in the area of mobile technologies for health care delivery and services?

Incorporating Health IT and Research Methodologies into Clinical Workflow:

- Has your organization implemented any health IT technologies or research protocols into your clinical workflow? If so, what technologies or methods have been implemented (e.g., clinical decision support tools, clinical practice guidelines, screening/assessment tools)?
- Please share your experiences with implementation of health IT and research methodology into your clinical workflow (e.g., what went well, areas of challenge, lessons learned).
- How has health IT and research methods incorporated into clinical workflow impacted your provider and office staff burden?
- Based on your experience, what suggestions would you have for the successful incorporation of health IT and research methodology into a health care organization's clinical workflow?

Appendix B: Participant Information

Attendee Name	PI	Project Name	Email Address
Usability and Health IT Design¹			
Institutional Review Board			
The Use of Mobile Technologies to Improve Health Care			
Jeff Ashburner	Stephen Atlas	Technology for Optimizing Population Care in a Resource-Limited Environment	pss44@drexel.edu
Lindsey Herzel	Lorraine Buis	Text Messaging to Improve Hypertension Medication Adherence in African Americans	jashburner@partners.org
Ketan Mane	Self	VisualDecisionLinc: Real-Time Decision Support for Behavioral Health	ed1209@wayne.edu
Andrew Masica	David Ballard	Impact of Health IT Implementation on Diabetes Process and Outcome Measures	c-garfield@northwestern.edu
Lynn Nemeth	Self	Synthesizing Lessons Learned Using Health Information Technology	nemethl@musc.edu
Paulina Sockolow	Self	Barriers and Facilitators to Implementation and Adoption of EHR in Home Care	kmane@email.unc.edu
Incorporating Health IT and Research Methodologies into Clinical Workflow			
Steven Atlas	Self	Technology for Optimizing Population Care in a Resource-limited Environment	satlas@partners.org
Elizabeth Ciemens	Self	The Effectiveness of an HIT-based Care Transition Information Transfer System	eciemins@billingsclinic.org
Erika Crawford	Eric Storch	Utilizing Health IT to Improve Health Care Quality	estorch@health.usf.edu
Margaret Handley	Self	Implementation Outcomes of a Health IT Program for Vulnerable Diabetes Populations	handleym@medsfgh.ucsf.edu
Jen-Shei Lai	Self	Symptom Monitoring and Reporting System for Pediatric Chronic Illness	js-lai@northwestern.edu

¹ Grantee participants discussed three topics at one roundtable during the session.

Attendee Name	PI	Project Name	Email Address
Flory Nkoy	Self	Improving Post-Hospital Transitions and Ambulatory Care for Children with Asthma	flory.nkoy@hsc.utah.edu
Elizabeth Ozer	Self	Improving Adolescent Primary Care Through An Interactive Behavioral Health Module	ozere@peds.ucsf.edu
Eric Storch	Self	Utilizing Health IT to Improve Health Care Quality	estorch@health.usf.edu