



## HIT Policy Committee FINAL Summary of the January 13, 2015 Virtual Meeting

### **ATTENDANCE (see below)**

### **KEY TOPICS**

#### **Call to Order**

Michelle Consolazio, Office of the National Coordinator (ONC), welcomed participants to the Health Information Technology Policy Committee (HITPC) meeting. She reminded the group that this was a Federal Advisory Committee (FACA) meeting being conducted with opportunity for public comment (limited to 3 minutes per person), and that a transcript will be posted on the ONC website. She instructed members to identify themselves for the transcript before speaking.

#### **Remarks**

National Coordinator and HITPC Chairperson Karen DeSalvo said that the meeting agenda had been organized to inform members of the role of EHRs and HIT in surveillance and outbreaks. The presentations should highlight standards and policy issues for consideration to support public health.

#### **Review of Agenda**

Vice Chairperson Paul Tang noted the agenda items. The agenda was distributed in advance of the meeting. He asked for a motion to approve the summary of the December meeting as circulated. Gayle Harrell so moved and Troy Seagondollar seconded the motion. The motion was approved unanimously by voice vote.

**Action item #1: The summary of the December 2014 HITPC meeting was approved unanimously by voice vote.**

#### **Data Updates**

Elisabeth Myers, CMS, showed slides and gave her standard monthly report on registrations and payments. Through December 1, 2014, 60,561 EPs successfully attested for 2014. There were 17,046 new participants and 16,455 attestations for stage 2. Regarding EHRs, 3,696 successfully attested for 2014; 292 were new participants and 1,681 were stage 2 attestations. As of November 2014, the Medicare incentive payments to date totaled \$17,247,719,661 and for Medicaid \$8,783,737,419.

Dawn Heisey-Grove, ONC, reported on attestation with more detail. She reminded the members that, in the past, many eligible providers did not attest until after the close of the fiscal (for hospitals) or calendar (for professionals) year. Not all eligible providers were able to attest to stage 2 in 2014. Only eligible providers who completed 2 years of stage 1 meaningful use (i.e. those that first attested in 2011 or 2012), were eligible to attest to stage 2 in 2014. Of all EHRs, 56% were stage 2-eligible and 44% were stage 1-eligible. Regarding all EPs, 42% were eligible for stage 2 and 58% for stage 1. With one month remaining to attest, nearly 80% of stage 2 EHRs had attested. 77% attested to stage 2. Stage 2-eligible hospitals that attested to stage 1 took advantage of the Flexibility Rule options. Among stage 2 EPs that

attested to stage 1, 65% attested using 2014 certified EHR technology; 13% used a combination of 2011 and 2014 certified EHR technology and 23% used 2011 certified EHR technology only. Stage 2-eligible EPs that attested to stage 1 took advantage of the Flexibility Rule options. Among stage 2 EPs that attested to stage 1, 25% attested using 2014 certified EHR technology; 7% used a combination of 2011 and 2014 certified EHR technology and 68% used 2011 certified EHR technology. Most hospitals attested after FY2014 closed. EPs have until February 2015 to attest.

## **Q & A**

The presenters reminded members that their reports are based on attestations that have been accepted and payment processed, meaning that any questions or inconsistencies have been resolved. Thus, there is always some data time lag. Regarding drop-outs, each year staff conducts an analysis of non-returners and their characteristics. Results will be presented to the HITPC. In response to a question as to whether these data indicate success, Myers said yes.

Tang interjected his interpretation of the reports. The 2014 attestation results are similar to those of 2013 and earlier years. Most providers wait until the end of the period to attest. Some of those providers that have yet to attest may apply for hardship. Regarding stage 2, only about half of EHs are even eligible to attest. The remainder will therefore be attesting for stage 1. He was encouraged that 80% of stage 2 eligibles have attested to date.

Regarding estimates for incurring penalties this year, Myers said that approximately 200 EHs and 250,000 EPs are getting payment adjustments, but most of these latter adjustments may not be significant (> \$5000). Staff is in the process of analyzing these data. For some of these providers, Medicare may not be considered an important factor in overall revenue. Payment adjustments apply only to Medicare. A member pointed out that participation has ramifications beyond payments in that the purpose of the program is to improve health care.

## **Outbreak Management and Response Health IT in the United States – The Role of Health IT in Nationwide Outbreaks**

Chesley Richards, Centers for Disease Control and Prevention (CDC) described CDC's role in outbreak response and management. During a multi-state disease outbreak, CDC coordinates its public health partners to detect the outbreak, define its size and extent, and identify the source. But in the United States, state and local health departments have the responsibility and authority to act on outbreaks. CDC assists in the specific areas of: disease surveillance; outbreak response teams; laboratory testing; and informing and protecting the public. Richards gave examples using responses to fungal meningitis, Ebola, and Chikungunya virus, each of which required a different approach. Finally, he pointed out opportunities for enhancing the use of HIT for outbreak management, such as sharing of IT infrastructure among state and local partners to facilitate better connection with clinical care, engaging public health workers in relevant standards development activities, and advancing the development of public health guidance in electronic formats that can be used to support clinical decision making.

### **Context and Terminology**

John Loonsk, CGI Federal and Johns Hopkins Center for Population Health IT, showed slides and analyzed how the U.S. experience with Ebola raised important considerations for health IT. Much of the initial media attention stemmed from the possibility that an EHR was involved in the clinical response challenges. He explained that outbreak management and response health IT needs in the United States are a subset of broader public health and emergency management health IT needs. As everyone knows, the organization of health delivery and the variation across state and local health agencies makes

nationally coordinated outbreak management difficult. In addition, infectious disease, environmental, and natural disaster emergencies may be very different in their response requirements. Public and population health functions share many IT needs whether they are outbreak management, hospital infection control, chronic disease management, specialty registries, clinical research, or other activities that have a population perspective. He pointed out that population health IT and aggregate data systems are not synonymous. He began with index case identification, saying that few outbreaks are identified via syndromic surveillance. Providers are still the best detectors, but they need information support and are not primarily reporters. Following the identification of the index case, screening for additional cases is the next stage. The heightened awareness after the index case brings different provider information support needs. In routine legally required reporting, studies indicate that a considerable proportion of cases are not reported by providers. Next comes reporting for monitoring and case management, at which point the focus moves outside of the EHR. Automating the movement of case reports to public health systems significantly increases the yield of cases. A link-back for clinical investigation of the outbreak population and for information sharing with providers is also needed. The next stage is case management. The respective public health authority receives information on possible and confirmed cases and works these populations. Cases are confirmed with lab results and/or investigation. Contact tracing kicks in to manage, link, and work what can be a rapidly increasing number of possible cases. Case reporting and visualization involves managing case counts and is a significant coordination issue. Countermeasure delivery and tracking includes medication, vaccine and quarantine management. Research and long term follow-up complete the circle and are components of a learning system.

#### **Q & A**

None

#### **Screening and Possible Case Identification in Clinical Care**

Daniel Chaput, ONC, showed a slide to depict a knowledge representation framework, ranging from narrative to executable. He announced that the presentation would focus on guidance. Bryan Clark, Cerner, described Cerner's assistance to its clients in using EHR inherent capabilities to take active measures to mitigate the risk from Ebola. The EHR does not replace the clinician, but rather focuses on asking the right questions, collecting the right information, and transmitting the right information to the right people. His slides showed the screens eventually designed to collect and transmit the relevant information. At the beginning, a priority review Flash containing specific recommendations for all clients to configure their system was sent to ensure that disease-specific documentation was collected as early as possible, as well as instructions for activating decision support alerts for potential infectious disease that are broadly communicated across venues of care. Ebola response content was implemented in all Cerner managed client environments. EHR capabilities for meeting current CDC guidelines for infectious disease screening were reviewed and updates to design were made accordingly (i.e. specific countries within Africa, etc.). Cerner collaborated with trusted partners such as Emory Healthcare and the Cerner Emergency Medicine Special Interest Group to develop appropriate content. Cerner also shared Ebola response strategies with other EMR vendors via the CommonWell Health Alliance. Given the dynamic nature of the Ebola response literature, it was difficult to keep EHR content updated with the latest CDC recommendations. He recommended in the future that all content releases from the CDC contain clear and concise version numbers and release dates. In the future, the CDC and EHR vendors should identify technology such as SMART on FHIR to streamline and deploy a standards-based surveillance app that could be plugged in to any compliant EHR. He observed that EHR vendors gain from this approach since they do not have to continuously update their local decision rules to keep up with rapidly evolving

situations. The CDC would benefit from getting real-time information about presentations of potentially dangerous diseases. Patient data from confirmed Ebola cases must be shared across the continuum of care so that health professionals in the community are aware of a risk as soon as the patient enters their facility. This can be done by standardizing and contributing infection risk data to regional HIEs, state repositories, and groups like the CommonWell Health Alliance.

Chaput continued. He thanked the EHR vendors who cooperated in the Ebola effort. He talked about an effort to define a simple, minimal set of knowledge artifacts to communicate requirements for decisions to EHR implementers and developers. This involved producing knowledge artifacts that describe the standard recommended value sets; sharing resources that enable easier, faster, effective implementation of guidelines, rules, and decisions; and improving clarity of clinical recommendations and consistency of implementation. A sample document set was designed—a test scenario *Identify, Isolate, Inform: Emergency Department Evaluation and Management of Patients with Possible Ebola Virus Disease*, November 5, 2014. He showed slides to demonstrate how this worked. Discussions with the participating vendors indicated that this type of documentation would have made it easier for EHR implementers and developers to incorporate guidelines. This type of documentation would reduce the amount of time necessary to adapt to new or changed guidance and improve the consistency of implementations across customer sites. He concluded that there is a need to identify other ways that semi-structured and structured knowledge can be shared with EHR vendors, expanding on the types of diseases and increasing the use of automation.

#### **Q & A**

DeSalvo thanked the developers for their help and inquired about information on the extent to which these tools were used. Clark offered to send DeSalvo data on use. Having an easier way to search the CDC website would have been helpful, such as a quick link from the ED. Chaput talked about several other systems that could make tracking resources available via EHRs, but there are interoperability barriers. Cross-system communication and interoperability are needed. Clark repeated that the frequent updates to content and their delivery were the most challenging. The situation changes rapidly. Regarding any disruption to clinicians, he indicated that Emory providers were not resistant, although there was pushback in the training of ED workers as they encountered screening fatigue. For clinicians, the process was simplified to asking and recording responses to a few basic questions. A commenter noted that going beyond Ebola, which requires isolation, not every disease requires immediate reporting during the visit.

David Kotz wondered about the research needed for data aggregation: What about privacy challenges and big data? Also, what is the potential of mobile technology for public health support, for example, contact tracing? Daniel said that mobile technology would be discussed under a later agenda item. Loonsk pointed out that case reporting is defined and regulated in state law. There is much misunderstanding as to what is required and permitted. The HITPC could help to reduce misunderstanding so that more information can be shared. Mobile technology has considerable potential, but data integration may be an issue. Mobiles may be more useful in the beginning of an outbreak, but as information accumulates, more than mobile capability is required.

Paul Egerman inquired about the application of usability design: Did Cerner use a user centered design process? Clark replied that the Cerner clinical staff was engaged from the beginning. The addition of an additional level of screening had to be tested. In this situation, staff worked with Emory on testing. Content is always reviewed with clients prior to deployment. In this situation, implementation was delayed a week for testing prior to the second—the full—release; full testing with documentation was

done. Cerner always does rigorous testing prior to software release. Beyond CommonWell, two calls (involving up to a thousand participants) were conducted with vendors and results were communicated to DeSalvo in her role at HHS.

### **Outbreak Case Management and Reporting**

Jim Daniel, ONC, prefaced the presentation by saying these systems are used by public health agencies on a daily basis, not only for outbreaks that are headlined in the news.

Annie Fine, New York City Department of Health, talked about her experience, which duplicated the structure and processes described by Loonsk. Regarding Ebola, although officials had advanced warning, its non-specific symptoms make detection difficult. She went through the details of several other outbreaks as well to show that responses vary by type of outbreak. Outbreak investigation detection and verification of outbreaks rely on reporting and having a central data repository. Alerts do not necessarily reach all providers. Active case finding requires several functions: case definition, which may change over the course of the outbreak; triage and investigation of suspect case reports; medical record review and physician interview; interviews with the patient and family on exposure and contact data. Lab specimens must be collected, transported and tracked. Testing is often conducted at public health labs. Larger and more complex outbreaks increase the demand for real time data and bidirectional communication with providers and labs. There is often the need for GIS analysis and maps, such as with West Nile. Different situations obviously require different systems for management. Surveillance systems require flexibility and scalability. Multiple jurisdictions can be affected. EHRs have a role in providing improved demographic and contact information for providers and patients. Individual look-up and query combined with population data can be used. Medical risk factors can be used for targeting the population at risk and identifying populations in need of care. Regarding Ebola, the increased exposure among health care workers greatly increased the needs for system response. She emphasized that in NYC analysis of surveillance data is on-going. Outbreaks are not uncommon. A Legionnaire outbreak in the Bronx was confirmed as she spoke. Rapid reporting by labs and GEO coding are key factors to control.

Janet Hamilton, Florida Department of Health and CSTE Executive Board, Surveillance and Informatics Steering Committee, said that the traditional core of public health surveillance is to learn about every person with a reportable disease to: identify promptly all cases of diseases or conditions that require public health intervention; plan, assess or evaluate control and prevention interventions; and detect outbreaks, changing trends or patterns in disease occurrence. Many data sources are used: ED and clinic visits, poison control center calls, EMS run reports, absenteeism, key words in tweets or search engines, news reports, blogs and more. The initial report alone (from either clinician or the laboratory) often does not have all the information public health workers need for completing investigations. Many pieces of information are needed: clinical and lab information to confirm the diagnosis; treatment or medications given to the patient; where the exposure or event occurred; denominator present (total exposed/impacted); environmental setting; how the patient may have become ill (insect bites, foods consumed, travel locations, etc.); and further prevention actions needed. Some, but certainly not all of these data elements are in the EHR. Considerable resources are required to obtain all of the necessary information. She went on to talk about the difference between syndromic surveillance and case reporting. In outbreaks, time is compressed. Ebola monitoring involved detailed daily travel tracking for 21 days with many hand-offs across jurisdictions. H1N1 presented a different set of challenges as did fungal meningitis and MERS. Her slides provided details on each. Electronic information sharing will be used in the future to support detection, case reporting and follow-up. She encouraged the HITPC to direct more attention to public health.

Tang asked that the remaining presenters shorten their presentations to stay within the allocated time.

### **Q and A**

In response to a question about the role of health information exchanges, Fine said that exchanges in NYC were good sources of admissions, labs and x-ray data and will soon be able to assist with locating individuals across facilities, but they could not provide information on variables such as symptoms.

### **Outbreak Laboratory Result Testing and Reporting**

Scott Becker, Association of Public Health Laboratories (APHL), said that lab results are a component in 70% of clinical decisions. Although designated public health labs conduct some diagnostic testing, they are primarily focused on populations; reference testing; and surveillance, monitoring and outbreak response. In contrast, clinical and hospital labs do diagnostic testing, some reference testing, and medical management of individuals. Public health labs do rabies testing, newborn screening, definitive testing for bioterrorism agents, TB testing, arbovirus surveillance; influenza surveillance for detection of novel strains of the virus, testing in response to outbreaks of food borne and waterborne illnesses, and radiation monitoring for any nuclear power plant in the state. He showed slides that describe the ways in which public health labs contribute to each of the core public health functions.

Becker continued. The Laboratory Response Network was established in 1999 by the CDC, FBI, and APHL to include federal, state and local public health, military, food, environmental, veterinary, and several international labs. Each level—sentinel clinical labs, hospital and private labs, some local public health labs, and reference labs—has a role. Using an example of electronic lab surveillance messaging for influenza, he reported that 49 state labs can send laboratory results for Influenza directly to CDC using automated HL7 v2.3.1 messages. Efforts are underway to expand the amount and quality of the information captured to include pyrosequencing and additional epidemiological data. PHLIP teams are preparing to apply the ELSM system to other nationally notifiable diseases. Using the PHLIP approach, APHL and its partners are establishing an ELSM message for vaccine preventable diseases from State Centers of Excellence Labs to CDC. He emphasized the need for surge capacity and, in particular, bidirectional communication.

Chris Atchison, State Hygienic Laboratory at The University of Iowa, talked about the importance of population health data. Noting that the term population health is increasingly used, he urged that when it is used, its breadth be specified. Public health labs connect individual care data with public health systems. These labs must connect with other labs. Their funding and support are shrinking every year. The HITPC should understand that outbreak response is a joint effort across the public health system. More attention should be paid to governmental public health IT needs, including at the federal level. Federal partners should be held accountable to the same technical and timing standards as commercial and public health entities. Public health must be an equal and important partner to all HIT policy discussions and decisions. Public health should be equally funded and incentivized as are commercial and other health care entities. The unique and critical role of the public health community in general and the public health lab in particular must be accounted for in future policy and funding considerations.

### **Countermeasure Management**

Ben Erickson, CDC, described the H1N1 Medical Countermeasure Situation Report. The mission is to increase the capacity of all levels of public health to track and manage the inventory of medical and non-medical countermeasures during daily operations or an emergency response event by creating a line of sight for inventory, identifying the point of dispensing facilities where a product is shipped, and determining how much of the product is used at the point of dispensing location, therefore extending

the line of sight, The Inventory Management and Tracking System enables day-to-day inventory management, visibility to the point of dispensing facilities, and a standardized process to receive inventory records using existing CDC systems.

Ulrica Andujar and Sam Graitcer, CDC, were not present for their scheduled presentation.

### **Outbreak Management and Response Health IT in the United States - Summary and Discussion**

Daniel said that the ONC S&I Framework includes a Public Health Tiger Team that is working on standards issues relating to HIT, EHRs and public health.

#### ***Discussion***

DeSalvo said that the Tiger Team will work on standards. There may be policy issues around interoperability as well.

Anjum Khurshid agreed that the engagement of representatives of public health in the FACAs should be increased. He commented that EHR data in itself will never be sufficient for public health. The delivery system is fragmented and, in addition, data pertaining to water, air, transportation and other systems are necessary for carrying out public health responsibilities. Should we engage those sectors via cloud computing to better understand the entire environment? Hamilton agreed that much essential information is not in the EHRs. Public health workers use Facebook and Yelp to gather information on individuals. Convening a task force dedicated to exploring these topics under the auspices of the HITPC would be a good step. Fine responded that her health department also uses social media in multiple ways, but it is not her area of expertise. Staff use Yelp and Twitter as data sources to detect food borne outbreaks. Nevertheless, they still need to interact with clinicians. She offered to provide contact information for colleagues who are better informed about the use of social media.

Tang recalled that his organization had use Facebook to manage appointments in a vaccine supply restricted situation. Chris Lehmann talked about gathering data on vulnerable populations where they are located such as VA and DOD facilities, nursing homes and schools. Fine reported that NYC gets and geocodes data from school nurses, correctional facilities and nursing homes, among other sources.

DeSalvo referred to work in Houston to connect data on air quality and asthma admissions. Regarding Ebola, the manifests of medical evacuation flights are shared with respective health departments. Not every patient has an EHR. Both person-centeredness and disaster preparedness are essential so that the communities in which the risk is highest can be located. Tom Grieg, spoke about the DOD priority of information management and the importance of bringing information into the EHRs.

Tang talked about several key points on which the FACAs may be helpful. Interoperability across agencies, which is a topic for the Interoperability Roadmap, is important. Some important public health data are not standardized. Advice regarding the protected sharing of data is needed. Person centeredness is not limited to health care. He asked what the committee can do. DeSalvo requested comments on the HIT Strategic Plan and the ONC Interoperability Roadmap.

Charles Kennedy referred to a health plan perspective and said that as ACOs become more prevalent, more questions about the role of public health are being asked. How does all of this intersect with commercial delivery? Tang said that the HITPC is trying to address the lack of interoperability through the Strategic Plan and the Roadmap.

Insofar as there were few questions or comments about the presentations, the meeting ended early. The February meeting will be in part a joint meeting with the HITSC.

**Public Comment**

Charlie Ishikawa, The Joint Public Health Informatics Task Force, thanked everyone. He said that the presentations agreed that outbreak management can be improved by strengthening the information infrastructure, not just the technology, but also the work force. He said that several presenters hinted at legal issues that should be addressed. He looks forward to the broadening of the committee’s perspective.

**SUMMARY OF ACTION ITEMS**

**Action item #1: The summary of the December 2014 HITPC meeting was approved unanimously by voice vote.**

**Meeting Materials**

- Agenda
- Summary of December 2014 meeting
- Presentations and reports slides

Meeting Attendance			
Name	01/13/15	12/09/14	11/04/14
Alicia Staley		X	
Anjum Khurshid	X	X	
Aury Nagy		X	
Charles Kennedy	X		
Chesley Richards	X		
Christine Bechtel	X	X	
Christoph U. Lehmann	X		
David Kotz	X		
David Lansky	X	X	
David W Bates			
Deven McGraw	X	X	
Devin Mann	X	X	
Gayle B. Harrell	X	X	
Karen Desalvo	X	X	
Kim Schofield	X	X	
Madhulika Agarwal			
Marc Probst	X	X	



Neal Patterson		X	
Patrick Conway			
Paul Egerman	X		
Paul Tang	X	X	
Scott Gottlieb			
Thomas W. Greig	X		
Troy Seagondollar	X	X	
Total Attendees	<b>17</b>	<b>14</b>	<b>0</b>

