Joint HITPC and HITSC
Certified Technology Comparison Task Force
FINAL
Report of the January 7, 2016, Virtual Public Hearing

Name of ONC Staff Liaison Present: Dawn Heisey-Grove

Purpose of Hearing: None stated

Review of Agenda and Opening Remarks

Co-chair Cris Ross reviewed the agenda, which had been circulated in advance of the meeting. The role of the task force is to make recommendations on an EHR selection tool, which is an important topic. He told the panelists to limit their testimony to 5 minutes.

Panel 1: Primary Care Providers

Panelists were asked the following questions:

- If a comparison tool was established, would you use it? If you were to use it, is there a form or format that you would find most helpful?
- How important is it for you to know whether the product can be integrated with the hospital or other health care environments?

Current users of health IT were asked the following questions:

- If you are currently using health IT and contemplating making a change, what are the factors you would entertain to accomplish that, and what resources would be necessary?
- What information did you wish you had known when comparing certified health IT products?
- Did you use any comparison tools to help you select an EHR? If yes, comment on the efficacy of those tools. If no, why not?

Non-adopters were asked the following questions:

- What comparative information would you need that might remove the barrier to you to make the decision to adopt?
- What information do you need to make your decision about which product(s) to purchase?

Jignesh Sheth, The Wright Center, submitted written testimony in addition to his presentation slides. After describing the current difficulties in selecting an EHR, he delineated the features of an effective comparison tool:

- A score-based system
- Key areas of EMR identified for individual scoring in each of those areas
- The ability for practices to choose what features are important for their individual offices
- Clear definitions and examples of what features really matter
- Definition of core features versus optional features

Sheth said that the key areas of EMR functionality in a primary care practice include the following:

- Accountability for team-based care continuity

- Population management
- Care management
- Portal functionality
- Referral tracking
- Interoperability
- Interface of practice management and the EHR system

In his written testimony, Sheth made a number of recommendations for improving decision-making in each of those areas.

Matt Rafalski, California Association of Health Information Exchanges, submitted written responses to the questions. Using his presentation slides, he spoke from the perspective of small, rural practices. Small practices do not have IT departments; often they lack staffs with IT proficiency. They are tempted to buy the cheaper products. Since smaller EHRs have smaller user groups, it is more difficult to get references and comparative data. Rafalski named the following issues as important for small practices: cost, ease of installation, need for additional clinical IT support, ease of maintenance, customizability, modularity, patient portals, population health, practice management, and revenue cycle for stage 3. He declared that a comparison tool would be useful not just for shopping but knowing when it is time to change systems.

Randy McCleese, St. Claire Regional Medical Center, showed presentation slides. He described the selection process used by his organization. After development and release of an RFI, staff compare 10 to 12 vendors and, by collecting information from phone calls and site visits, narrow the list to three vendors. They assign numerical values to features and use spreadsheets for comparisons. Systems selection components should consist of the following:

- Registration
- Finance
- Quality measures
- Scheduling
- Billing
- Collections
- Upgrades
- Infrastructure
- Compatibility
- Interfacing and integrating

His organization uses the following selection criteria:

- Appearance
- App movement and access
- Pop-ups
- Simple
- Support dictionaries
- Time saving features
- Records retrieval
- Customization

Geoffrey Burns, Renaissance Family Medicine of Wellesley, did not refer to slides or submit written testimony. He talked about the shopping experience from the perspective of a solo practice, agreeing that a scheme for comparison would have been helpful to him. He said that he first looked at the top-rated system, Epic. Burns went to blogs for expert opinions to help to determine whether the top-rated systems would fit a small office. He suggested that a wire diagram would be a helpful format for making a purchase decision. The user would be asked questions, such as “Do you want onsite or cloud storage?”

and “Do you want billing and scheduling?” Burns explained that after he had narrowed down the products, he looked at demos and then contacted the vendors. Word of mouth from colleagues was important as well. He reported that he is happy with his choice.

Q&A

Christopher Tashjian asked about experience with customization. McCleese responded that he tries to avoid customization because of the cost, including cost of upgrades. He said that adaptability is important and that any tool should differentiate between customization and adaptability. Some providers do not need much adaptability. A panelist noted that while customization is important at the organizational level, it contributes to confusion when done at the user level.

In response to another question, Sheth pointed out that a decisionmaking team is best composed of average users, not first adopters or slow learners.

Christine Kennedy inquired about the effects of partnerships with hospitals on selection. McCleese said that he is hospital based and that the hospital was involved with selection. Burns reported that he made queries to two local hospitals to determine whether being in a network would be beneficial to him. The hospitals had many requirements that would add to the cost. Therefore, he decided not to align with a hospital. Sheth said that he is in an independent practice. In 2005, no local hospital had an EMR system. Sheth belongs to a well-functioning exchange, so a hospital connection is not necessary.

John Travis referred to usability and peer evaluation: What about a trusted source through a comparison tool? A vendor could go through some process or be an independent source. According to Sheth, an independent group is not necessary. Someone said that although independent testing would be nice, it would be costly. Users’ comments about what makes a system difficult to use are helpful insofar as the inquirer can determine whether those difficulties are applicable to his situation. Burns responded that it is a decision tree problem. Another panelist observed that size of practice is an important variable. Travis referred to an RFI from CMS on quality measures. He asked whether vendors should be compelled to provide references. Burns replied that references might be helpful for small practices with no IT staff or training. However, new practitioners are accustomed to using word-of-mouth apps. McCleese reported that he had asked for references and his vendor provided contacts for customers who had problems as well as for satisfied customers.

Ross wondered, if ONC were to foster some kind of tool, at what point and for what purpose the panelists would use such a tool. McCleese indicated that a tool might be a good starting point if a catastrophic event initiated a need to change vendors. He would also use it for strategic planning, for example, to prepare for MACRA and other events in a rapidly changing market. McCleese said that he would first define requirements. Then he might go to the comparison tool to look at what is available. Burns said that a tool would be a way to keep abreast of what is available. He might use it to determine whether to change his current system. Ross inquired about the extent to which they would want to depend on peers’ feedback versus expert evaluation. Sheth replied that both are important, but the objectivity and independence of experts are essential. Burns thought that there is a role for both. McCleese would use both, but for different purposes. Someone pointed out that the source of the information must be labeled.

In response to an online question about the extent to which the respective products contributed to better care and lived up to expectations, Burns said that the EHR distracts from his time with a patient, but in the long run, it contributes to efficiency and better care. He is satisfied with his vendor. McCleese agreed, saying that his system surpassed expectations. Another panelist said that his expectations were also exceeded. Although a great investment was required, care eventually improved. A provider needs to adapt the EHR to the workflow and vice versa. He suggested that in developing a tool, the designers should work with a satisfied user and an unsatisfied user to determine what works in different situations.

Steve Stack observed that the challenge with such a tool is to define its scope. The market is diverse and cost varies. He wondered about a blend of vendor self-report of customer characteristics and, for the second tier, vendor self-reports on key areas. Customers' reports of their experiences would constitute the third tier. Critics could comment, and viewers could contribute feedback in a Rotten Tomatoes–like format. Would that be useful and sufficient? A panelist recommended starting small and doing it well. Categories of what is acceptable could be identified, and the source of opinions could be labelled. Back checking is a possibility. Burns talked about a *Consumer Reports*–like format, with different categories and ratings of red, yellow, or green. Sheth agreed that a hybrid system could be useful. Stack suggested something such as asking verified purchasers what they would recommend, along with scores. They could also be asked about other better products.

Panel 2: Specialists

Panelists were asked to respond to the following questions:

- Were you able to access information about health IT products to support specialty-specific needs?
- What was (or is, for non-adopters) lacking in your ability to identify whether the products supported your specialty needs? (ex. specialty registry submission, supporting quality measurement, clinical documentation requirements of specialty, or specialty practice-specific)
- If a comparison tool was established, would you use it? If you were to use it, is there a form or format that you would find most helpful?
- If you are currently using an EHR and contemplating making a change, what are the factors you would entertain to accomplish that and what resources would be necessary?
- In hindsight, what information should you have had when you were selecting a health IT product?

Chuck Czarnik, Brookdale Living, had no slides or written testimony. He declared that although a selection tool would be useful, ONC is not the one to develop it. He prefers the development and use of existing tools and making them available via data.gov. The market should develop the tool. ONC should not create winners and losers. What is important in a tool is to remove friction from health care. Certification is complex, expensive, busy work, with the cost passed on to providers and patients. Czarnik suggested simplifying the process and making it like automobile registration. Information blocking is a concern in the shadow and is best dealt with by simplifying the process. Certification is a six-figure cost for a vendor and primarily benefits large corporations. A modular approach would level the playing field. Most providers do not know who ONC is and do not look to ONC for advice. Friction would be reduced by using existing industry avenues for distributing information. Czarnik said that he will submit written testimony later.

Howard Landa, Alameda Health System, showed presentation slides. EHRs have been designed more for primary care than specialty care (reasonably so), and the degree of adoption has paralleled that design principle. Specialty care differs from primary care in the greater number of clinical locations and types. Providers spend less time in clinics and have less control of electronic tools and environments. For specialists, integrated records are more important than interoperability. Workflows and data needs are often specific to the specialty. Although specialty societies generate recommendations, they are generally testimonial and superficial. No standardized or evidence-based comparisons are available. Specialty care EHR comparison tools would be very helpful. One would need to start with research and education and use an evidence-based approach. He wondered whether best practices even exist. He noted a distinction across interoperability, intraoperability, and integration. Many workflows are common across a number of specialties, among them ORIS integration, procedural sedation support, and monitoring interfaces (urodynamics, EEG, EMG, cardiology, and OB). Specialists need to be able to coordinate complex data over time. Specialists must report on different quality measures. Specialty care is hugely expensive, and return on investment must be taken into account. Data siloing is the norm.

Effective specialty data sharing has a huge potential to impact quality and costs, but payment incentives have yet to be aligned.

Amy Painter, Children's Healthcare of Atlanta, did not use slides. She submitted written testimony after the conclusion of the meeting. She focused on the needs of pediatric care in a large system. Decisions on EHRs are typically made at the executive management level, and specialists are not included. Much detail is needed in pediatrics. Many EHRs lump specialists rather than considering the unique requirements of each. She gave a long and detailed list of pediatric needs, including but not limited to the following:

- Pharmacy customization
- Special history data
- Family education
- Collection of pre-visit information
- Customization for meaningful use, such as smoking
- Contributions to registries
- Access to peer-reviewed medical records
- Role based security barriers
- Multi-specialty team input
- Accommodation for state laws
- Number of clicks for meaningful use compliance

Steve Wilkinson, Rocky Mountain University of Health Professions, submitted written testimony in addition to his presentation slides on behalf of American Physical Therapy Association. He described his experience with an employer who used Epic. He explored the use of Epic for physical therapy services. When he visited another organization that used Epic, he found that only a text box was available to record physical therapy services. Wilkinson described to his chief information officer the numerous ways in which Epic did not work well. It was not compliant with Medicaid reporting requirements. It did not provide a way to accommodate Medicare restrictions on speech therapy. Although Epic could be configured to do additional functions, the out-of-the-box version did not work. The organization purchased something that could be used with Epic. Features that would be valuable for physical therapists include the following:

- Structured data for analysis, reporting, dashboards, and outcomes
- Clinical decision support
- Intuitive interfaces that match therapists' workflows
- Physical therapy content (out of the box)
- Easy customization and optimization
- True interoperability with therapy-centric EMRs

In conclusion, Wilkinson pointed out that physical therapists have low profit margins, much lower than physicians and hospitals. They are not EPs. Therefore, incentives must be provided.

Lori Simon, American Psychiatric Association (APA), showed presentation slides. She reminded the members that few EHRs support the needs of mental health providers. There is a low level of adoption among solo and small group practitioners. Another problem is the lack of comprehensive requirements accessible to developers. Lists of apps and EHRs are not accompanied by tools to guide selection. She described AmericanEHR as an attempt to identify and rate EHR use, using questions developed by the Mental Health Information Technology Committee in 2013. However, it has limitations, such as limited behavioral health questions, limited sorting and selection functions, cost, hardware platforms, system availability, and, most importantly, usability. The APA website (www.psych.org) provides resources for EHR selection. Simon went on to describe on-going efforts by HL7 and APA to improve the situation. She recommended the formation of a consortium of mental health and primary care professional organizations to address these issues.

Q&A

Co-Chairperson Anita Somplasky asked about interoperability and the exchange of information with outside systems. Painter talked about the care team sending notes manually, along with electronic faxes. Landa said that although transfer-of-care documents are sent to portals, those providers do not necessarily look at them. Digital faxes are used. Czarnik said that several mechanisms are used, such as proprietary interfaces derivative of HL7. His organization partners with others using the Direct protocol. Hospitals are doing this in order to quality for incentives. However, the information is redundant and not useful, since the long-term care facility has already received the information by fax or other avenue. Another mechanism is the proprietary portals set up by EHR vendors. Somplasky asked about a tool for interoperability: What would have to be in the tool in order to make a selection? Panelists called out the following: electronic fax with fax numbers in the system, care teams, directory of providers, and compatibility with and presentation to the receiver's system. Czarnik declared that standards are currently focused on payloads and not associated with actions. Systems must link with key workflows, such as order entry and approval.

In response to a question about unique behavioral health workflows that affect usability, Simon replied that, unlike in sectors where users' needs are paramount, in health care, EHR vendors profit by making generic products. Note taking can affect the therapist-patient interaction. Simon acknowledged that it is an issue for all physicians.

Travis asked about suitability: What factors should be included? Landa pointed out that to some extent, all specialists may have similar workflows, although they are different from primary care. Specialists tend to focus on the longitudinal development of diseases. They integrate with operating rooms and use equipment. There could be a list of what providers use. Usability is the most important factor in selection. Simon suggested that ONC contact the professional organizations and develop an understanding of specialty needs. Then staff can examine similarities and differences and determine the requirements for each specialty. Vendors could use this information to better understand what must be customized. Ratings could be assigned. Czarnik said that long-term care facilities also vary in their services and needs. As needs become more focused, the list of vendors would be narrowed. Vendors could be scored (yes or no) on required attributes.

Stack wondered whether information on the interoperability and interconnectivity each vendor has with others would be useful. He was interested in the panelists' thoughts on which vendors are a good fit per specialty. Landa pointed out that meaningful use should improve its adaptation to the different specialties. Professional societies can identify what is needed. Regarding interoperability, the core functionalities should be uniform across vendors. Simon observed that behavioral health and primary care must be interoperable. Patient information should be readily shared. Czarnik referred again to the importance of the management of order workflows. He added that interconnectivity with the delivery of care in the community, such as telehealth, is increasingly important.

Tashjian inquired about the importance of specialists having to understand and use multiple EHRs. Panelists agreed that physicians and other staff are increasingly required to access other systems with different platforms. These differences are dramatic, because vendors prefer distinctive appearances. According to Czarnik, this is a significant issue in long term and post-acute care.

Somplasky referred to pediatrics as a special category: Would meaningful use functions be useful across all specialties? Landa responded that higher-level functions or workflows, such as anyone who admits to a hospital, consults, uses equipment, or operates, are applicable. Simon said that although there may be commonalities across specialties, some fields are unique to or more important to specific specialties. For instance, everyone does a patient history, but different data are captured for each specialty. Another panelist pointed out that quality metrics vary across specialties. Painter noted that meaningful use criteria do not register unless the review is clicked. The criteria do not always match with the purpose.

Summary and Recap

Ross said that defining the scope of a selection tool is very important. Panelists indicated that a tool would be used in decisions on whether to buy in addition to what to buy. How to incentivize the market for such a tool is another consideration. Somplasky referred to the importance of understanding what IT support is needed for specialists who are not part of a network. The effect of additional functions on workflow must be taken into account. Sharing actionable information is needed in any tool.

Review of Evaluation Homework

Ross directed the members' attention to slides prepared by staff and distributed before the meeting that summarized members' responses to a survey on the importance of including the following factors identified by ONC staff in a selection tool:

- Usability and accessibility
- Cost
- Privacy and security
- Regulatory requirements
- Patient engagement
- Quality improvement
- Population health
- Interoperability services
- Data migration
- Practice management
- Alternative payment models (APM)

The intent of the homework assignment was to identify areas of greater (and lesser) agreement on factors. Ross reminded the members of the charge to the task force. Members' agreement ranged from 63% to 100%. Responses suggest that comparison of products for some categories may not be feasible at this time. Members' comments indicated that, although useful for comparison, there may need to be more work to develop standardized comparison measures for APM, interoperability, and population health. Ross asked for reactions. Travis pointed out that the 2015 certification criteria do not include APM and several other topics. He asked about the charge. Ross said that they must deal with the criteria in certification technology; it is an open issue whether to deal with additional topics. Stack recommended that they eliminate practice management (75% agreement) and APM (63% agreement). Ross said that the tool would influence vendors' designs. Someone asked for a definition of accessibility. Heisey-Grove explained that it applies to Americans with Disabilities Act (ADA) requirements. Ross commented that accessibility is very important to a small percentage of users. Consideration should be given to the numbers of potential users to which each of the factors is important. Ross asked Travis for his opinion on whether the industry has a handle on accessibility. Travis replied that it is very important in government contracting. The market sees it as sight first, then hearing, and then compatibility for physical assistance devices. Accessibility should be normalized. In its recent NPRM on non-discrimination in health care, OCR did not nominate standards for accessibility for consumers. Travis suggested that ONC staff communicate with OCR staff on this matter. Cerner is tracking this rule in anticipation of stage 3 certification of view, download and transmit. Ross talked about accessibility and usability for patients. Jorge Ferrer objected to lumping patients and clinicians, and usability and accessibility, saying that each is a complex topic. The selection tool is intended for providers. According to Heisey-Grove, accessibility was included in the list because a checkbox in certification will make it easy to compare in the CHPL. Schlossman agreed with Ferrer.

Ross moved to slide 8, which showed the compilation of members' responses on the importance of cost in each of the 11 categories. Travis said that purchasers are very sensitive to cost for what they consider add-ons. Apparently, members applied different values in their ratings. Perhaps the question was not clear. A member explained that interoperability is so essential that cost is a secondary consideration.

Users expect to have interoperability in the base product. Another member pointed out that cost should be better defined; there are purchase and operating costs, opportunity costs, and lifetime costs.

Ross went to slide 9, showing that there is more variability regarding the importance of usability as a comparison factor, but the majority still consider it very important. Without cost or usability information, most members feel that comparison tools have limited utility.

Regarding opinions on gaps in the current tool marketplace, gag rules, and inability to comment, the freedom of health care providers to report on health IT cost and ease of use was cited as a concern by several members. Tashjian declared that he is not aware of a gag rule; he comments freely on his system. Ross said that his organization is not subject to a gag rule, although staff does not share information on cost. He wondered whether the concern is real. According to Somplasky, sometimes vendors and purchasers enter into deals, such as being test sites, and the purchasers are subject to a gag rule. Schlossman described an experience with structure in which a gag rule was eventually applied. Showing screen shots has resulted in legal action from some software vendors. Stack noted that a deal with a test site is a different situation; if one buys a compulsory product, the transaction should be transparent and the purchaser should be able to compare costs. Also, it would be helpful to ask purchasers whether the final cost was as expected.

Heisey-Grove explained slide 13. Based on responses, certified health IT functionalities provide an incomplete picture for comparison tools. Comparisons that include products or functionalities beyond certified technology, such as data migration, are crucial. Stack said that the tool should not have to include all criteria in certification. Heisey-Grove clarified that only those considered by members to be relevant must be included. Ross said that they should align with certification requirements. Another slide summarized responses on data sources and the availability of unbiased, representative data. According to members' opinions, the availability of unbiased, representative data may be limited for most categories. Some relevant certification information may be available through Open Data CHPL. Members' comments indicated that some information relevant for comparison may be obtained through information collected during the certification process. However, information on several topics may be limited.

It was noted that these comments are consistent with information from the public testimonies. Tashjian asked about requiring cost information from users. Ross wondered whether the government can legally solicit such crowdsourced information.

Next Steps: The task force is scheduled to meet January 8 to begin drafting recommendations. Another hearing is scheduled for January 15. Ross told members to think about summarizing the output from the hearing and to form recommendations.

Public Comment

Several written comments were received.

Thompson Boyd, Hahnemann University Hospital, wrote, "Who owns the data? Have you had a problem where the previous EMR vendor was reluctant to give your patient data to the new EMR vendor?"

Steven E. Waldren, MD MS, wrote, "I missed the "*" I did have a comment. We at the AAFP have been providing comparison support to our members on EHRs since 2005. We would be glad to provide you with information about that experience. Based on our experience, any comparison tool needs to (1) be multi-source in nature including objective testing, expert opinion, and user experience; (2) you must include a social component to be able to scale to meet the needs of the diverse provide community and to stay current on requirements."

Waldren continued, "Also a couple of high level comments, (1) MU has drive the adoption of EHR and we still struggle with substitutability of EHRs and health IT ; therefore any comparison tool should include "compatibility" with other products as a critical component. (2) EHR is a part of a system which includes the work environment, workflow, and organizational structure therefore testing the EHR in

isolation will be insufficient; there should be a comparison of implementations; This necessaites the need for reviews and user experience. (3) Comparisons need to be focused on "capabilities" not functionalities; We need to understand how the EHR/HIT will be useful in accomplishing the need capability, such as management of chronic disease. We do not need a comparison of how well the EHR creates a patient list."

Waldren added, "Also, it is important for the compassion infrastructure to not only identify difference among products but also drive improvement of products. It would be great to see a common infrastructure for a common comparison process for HIT that multiple entities (medical societies) could use. This would support the expansive scope of such a comparison tool and would help create a common pathway for vendors and identify common needs across specialties and workflow."

Jennifer Harbison, University of Iowa Health Care, wrote, "In regards to primary care and behavioral health—doesn't behavioral health data sharing depend on the state law?"

Flag to ONC Staff for Coordination: None

Meeting Materials

- Agenda and questions
- Panelist bios
- Written testimonies
- Douglas Ashinsky's written recommendations and responses to questions submitted in lieu of oral presentation
- Presentation slides

Attendance

Name	01/07/16	12/01/15	11/17/15
Anita Somplasky	X	X	X
Christine Kennedy	X		X
Christopher Tashjian	X	X	X
Christopher Ross	X	X	X
David Schlossman	X	X	
Dawn Heisey-Grove	X	X	X
Elizabeth Johnson	X	X	X
Joe Wivoda	X	X	X
John Travis	X	X	X
Jorge Ferrer	X		
Steven J. Stack	X		