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**Comments on the "meaningful use" of Electronic Health Records**
**Submitted to the Executive Committee of the National Council on Vital and Health Statistics**
**U.S. Department of Health and Human Services**

In many forums, the definition of "meaningful use" of an electronic health record focuses on the ways that software and databases containing some or all of a health record are accessed in a healthcare setting. These discussions often represent a traditional view of healthcare informatics; a care provider in a conventional setting using some manner of computer to enter or review results of a clinical encounter: lab results, medications prescribed or administered, radiology results, clinical diagnoses, etc.

We believe that meaningful use also should reflect the realities of the highly mobile healthcare team and the technologies that address that mobility, as well as the technologies that are available to increase privacy and security protections as the use of the EHR expands beyond the covered entity that collected information on a particular healthcare encounter. While some suggest an opportunity for patients to opt out, if this is the only choice, the patient may be forced to choose between quality health care and protection of privacy. It is a false choice.

**The Mobile Healthcare Team**

Meaningful use should include mobility in two contexts. Care providers increasingly are called upon to participate in healthcare decisions when they do not have ready access to a computer. Meaningful use, therefore, should factor in the ability to view and enter health care information in a variety of contexts, from entering an order through a cell phone to viewing lab results on a PDA. Technology now is commonplace to support information flow across all elements of an entity's wired or wireless communications infrastructure and beyond: to the Internet or the public cellular and other networks that were installed for voice but now carry data as well. Developing a definition of meaningful use that misses an opportunity to address mobility is not consistent with the American Recovery and Reinvestment Act's emphasis on technology improvement and efficiency.

Secondly, these same technologies now support fully an ability to manage the actual presence of the members of the healthcare team. Traditionally, much time can be lost locating a key member of the healthcare team who may be out of office, stuck in traffic, or otherwise "unavailable". "Presence management" resolves the vast majority of these circumstances by maintaining knowledge of the most convenient way to reach a care team member who is on duty but seemingly out of reach by routing data (including a voice over IP "voice" call) to an appliance that will, in fact, reach the team member. A definition of meaningful use that fails to address this critical capability to create a holistic communication grid for all active team members will cause use to be less meaningful than it otherwise could have been.

Thirdly, the mobility of the healthcare team means that even within a facility, healthcare professionals must access the EHR in many different locations and for many different reasons. This result's in considerable expansion of the number and types of access appliances needed; desktops, laptops, cart mounts, etc. In many, if not most, inpatient facilities in particular, the physical plant often is challenged to accommodate all of these modes of access. Clutter, space conflict, battery charging stations, etc., can end up compromising use because of the difficulty getting to the right type of machine at the point of care. Technology is available to support deployment of one appliance per inpatient bed, fully capable of providing the care provider's EHR access, patient's access to their record, and patient use of Internet, entertainment, personal computing and health education materials. Without some addressing of the device clutter, perhaps in the form of encouraging multi-purpose appliances, meaningful use may be compromised.

## Privacy and Security

HIPAA privacy and security regulations have received relatively little emphasis over the past several years. As we contemplate expanding the scope of reach into a given patient record, and expanding that scope to bring into play additional covered entities or registry functions, new attention needs to be devoted to these areas.

At the same time, however, expanded use of an EHR, whether local, regional, or national, decreases our patience for convoluted security measures that can delay access and in some cases, such as the emergency department or operating room, can jeopardize life.

Meaningful use, therefore, should include consideration of all appropriate technologies to address both sides of this privacy and security "coin". Fortunately, as with the mobility issue noted above, the technologies to support both sets of concern are readily available and indeed are applied routinely in many other industries.

One possibility is the use of a patient health card that allows the patient to accept responsibility for transfer and transport of the medical record among health systems. Meaningful use should include provisions for this type of meaningful use by the patient that also can help to assure patient privacy.

To the extent that we collectively rely on institutional record sets, "identity management" supports quick provisioning and deprovisioning of access to computer systems that provide access to EHR. It also is critical to identification of a patient across covered entities as we seek to bring records for Joe Smith, Joseph Smith, and Joseph R. Smith, Jr. (for example) contained in three different systems in Pennsylvania, Delaware, and the District of Columbia together into one patient profile.

Biometric devices and other approaches to user authentication and authorization can speed access to the EHR and, equally important, reduce user resistance to use of the EHR.

Single sign-on technologies and systems that result in the same convenience to the end user through more complicated solutions allow the user to move among various software applications to obtain a more detailed description of an encounter, diagnosis, or evaluative technique than may be possible using a single electronic medical record software application.

A definition of meaningful use that fails to include these advances in availability and integrity of the EHR would represent an opportunity missed relative to the vision and scope set forth in the ARRA.

## Summary

In both examples discussed above, technology supports far more than software applications that compile and display electronic patient information. Technology allows access from a continuously growing set of options, many of them outside the traditional view of electronic systems. Expansion of access to regional and national levels creates new risks to privacy that can be managed using readily available security management tools. Meaningful use should be defined to include consideration of these technologies as well as those more typically viewed as part of the EHR solution.

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