

Testimony of Harold Solbrig, Mayo Clinic

Question 1: What are the requirements for a centralized infrastructure to implement “one-stop shopping” for obtaining value sets, subsets and vocabularies for meaningful use?

Value sets, subsets and vocabularies are more than simple code/value lists. The value of these artifacts lies in their shared semantics – the fact that different institutions separated by geography, culture and time can be reasonably certain that, when a code appears in a clinical document, it represents the same meaning as intended by the originator.

This means that the value sets distributions must include instructions on their intended purpose and meaning. Each code in a value set must be accompanied by sufficient information that systems architects, software developers *and* clinical users will be able to understand the intended meaning of the individual code. It is also important that the “one-stop shopping mart” includes software that lowers the barriers to installation and use. A rich set of definitions, related terms, etc. is of little value if they are discarded during implementation and all the clinician is able to see is a long list of codes and terms. Both service level and graphical user interface (GUI) software needs to be provided as well, accompanied by implementation guides that specify how to use the value sets as well as specifying the minimum information that needs to be provided to the end user to all them to make accurate and consistent selections.

The “one-stop shop” must also provide the ability to subscribe to updates. Value set consumers need to be notified when changes are made and be provided enough information that they can make informed decisions about when and whether updates are installed. The installation process must be made as painless as possible and must allow installation decisions to be reversed if issues arise. Obviously not all systems will be able to take advantage the “one-stop software”, but those that do should be able to maintain and update their value set library with minimal local costs.

Finally, to be of value, robust mapping tools must be made available at little or no cost. These tools must allow healthcare institutions to download value sets, import the codes used in their own databases and to create accurate and useful mappings between the two. The resulting mappings must also be accompanied by software that will allow them to be applied to transformation between local formats and national standards. These mappings must be coupled with the update process described above and must also support feedback mechanisms – the ability of consumers to ask questions and submit requests for changes and clarification.

Question 2: Which requirements or functionalities are urgent, i.e., absolutely required to support “meaningful use”? Which would be most useful immediately? What would be a staged approach over time to get to the desired end state?

At a bare minimum, all published value sets must be accompanied by documentation, definitions and other information regarding correct and consistent use. Simple lists of terms are nothing more than lexicons – lists of words that can be used where appropriate in a

document. In order to be useful, however, all of the content must be represented in a common, well documented structure that already has software and access methods in place. This basic package would allow the better funded institutions to begin the adoption and deployment process.

The next most useful package would be a solid mapping tool to allow institutions to begin transformations to and from their own data representations. The presence of this tool *and* the content would enable the larger institutions and tool-vendors. Additional support software could be provided on an as-needed basis, although it might be worthwhile to investigate approaches to encourage the community to publish and release their own software solutions as open source and/or free use tools.