Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap Draft Version 1.0. –Public Comments by Stephen Beller, PhD, National Health Data Systems, Inc.

My comments refer to the core technical standards and functions. These comments are based on my 30 years’ experiences as a healthcare clinician, software architect and developer of novel health IT (HIT) applications. I am also a committed member of seven ONC workgroups (SDC, 360X, eLTSS, esMD, DAF, Query Health and the Direct Project) and involved in related IHE (Integrating the Healthcare Enterprise) activities.

I applaud the notion of the Learning Health System and am satisfied with some important achievements by the workgroups. The problem, however, is a flawed technology standards process that fuels ever-increasing complexity and cost, as well as stifling important types of innovation.

For example, web-based data exchange models have been the primary focus of ONC and IHE transport standards. They include the SOAP/HTTP protocol and RESTful APIs technologies, as well as Health Internet Service Providers (HISPs) to handle the transactions and Business Associates Agreements (BAAs) for liability protection. While these complex standards address certain use cases, the problem is other important use cases require simpler data exchange standards, such as the Direct Project’s “Simple SMTP” (SMTP + S/MIME) model (see <http://wiki.directproject.org/Threat+Model+-+Simple+SMTP>). The Simple SMTP model is an uncomplicated, low-cost transport standard that sends information from point-to-point via secure e-mail and it does *not* require HISPs and BAAs. Nevertheless, its use has been unduly constrained in favor of more complex and costly web-based standards.

I cannot imagine interoperability ever being achieved unless, as in the example above, standards are aligned with *both* (a) the extensive capabilities of large organizations that have the money, manpower and infrastructure to support complex, costly technology standards *and* (b) the very limited capabilities and resources of individuals and small organizations. In other words, no one set of standards is appropriate for all circumstances, so complex and costly technical standards must be counterbalanced across-the-board with simple and inexpensive ones. This means Federal funds and policies should promote standards and HIT innovations that enable a balanced and inclusive interoperability strategy.

In answer to the question “What actions are your organization planning to take and willing to commit to that will support interoperability,” I say this: We are willing to collaborate in the continued development of low-cost interoperable software applications that support a balanced, inclusive approach to interoperability by:

* Transporting information securely from point-to-point (node-to-node) via Simple SMTP, in addition to exchanging information via web services.
* Satisfying the requirements of multiple Federal HIT initiatives including how to: create and use electronic forms to capture and transport structured data from EHRs and other sources (as per [SDC](http://wiki.siframework.org/Structured+Data+Capture+Initiative)), perform and manage closed loop referrals (as per [360X](http://statehieresources.wikispaces.com/360X+Project)), send prior authorization documentation to CMS in a coordinated manner (as per [esMD](http://wiki.siframework.org/esMD+Initiative)), do remote queries for documents and data elements (as per [DAF](http://wiki.siframework.org/Data+Access+Framework+Homepage)), segment data for privacy (as per [DS4P](http://wiki.siframework.org/Data+Segmentation+for+Privacy+Homepage)), and create and exchange service plans (as per [eLTSS](http://wiki.siframework.org/electronic+Long-Term+Services+and+Supports+(eLTSS))).
* Operate efficiently, both online and offline, using local computer resources and consuming little network bandwidth.