AMERICAN ACADEMY OF FAMILY PHYSICIANS
STRONG MEDICINE FOR AMERICA

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On behalf of the 94,600 members of the American Academy of Family Physicians (AAFP), thank you for this opportunity to offer this testimony. I am Dr. Steven Waldren and I am the Director of the Center for Health Information Technology at the AAFP.

It is an honor to speak with you today about health information technology and how to increase its value to physicians and patients. The role of standards in any industry should be to help drive innovation in that industry, to make products and services cheaper, better, faster. Innovation can elevate what vendors and users compete on, and it can lead to new products and services that increase the value of the industry as a whole.

But it also important to realize that standards are not generally an end in and of themselves. They are a means to an end, a set of outcomes or results – such as lower cost or increased efficiency; greater convenience, or faster response times. Generally speaking, there comes first the desire or need to attain these ends, and then, in pursuing these ends through the marketplace, the participants in that market find ways to standardize. This is true of standards in the computer industry, which allow components from multiple participants to be assembled and configured, dramatically lowering the cost of personal computers and the speed with which products can get to market and into the users' hands. It is true in the chemical industry, where standards for piping, for designs, and for various substrates allow almost anyone to assemble components into a system for the production of styrene, for example. And it is true in the communications network we call the Internet, where protocols and standards allow many different kinds of software to plug-and-play, relieving the user of worry about whether or not his or her email message or audio file will be interpretable by the receiver at another, possibly very remote node on the network.

There is a saying about standards, which is that "standards are not created; they are adopted." There is a big difference between proposing a standard for use, and its actual acceptance by a group of users or an industry. It is important to understand the predictors of success, as well as the barriers to standards adoption, if one wishes to accelerate the adoption of standards. I would like to discuss some of those predictors and barriers as they pertain to health IT standards for interoperability and computability, particularly our experience with the adoption of the Continuity of Care Record standard, or CCR, over the period from 2005 until the present.

Predictors of Success

Based on our experiences working with our physician members as they have adopted and used health IT in their practices over the past six years, and our experiences during the development and deployment of the CCR standard and other standards, there are a few predictors of success for standards adoption that we have been able to observe.

1. **Market demand**: Aligning incentives to create the business models that drive demand for standards is the greatest lever to accelerate adoption. People, businesses, operational units of organizations, all need a good reason to exchange health information before they do so on a large scale using standards. CVS/MinuteClinic is using the CCR standard to send patient visit summary information back to their patients' primary care physicians tens of thousands of time per week. They needed to find a way to do this efficiently through the use of an XML clinical messaging standard because their business model requires them to communicate with the patient's medical home; this was essentially a promise they made to their customers and partners. These messages in CCR format now travel through the SureScripts-RxHub network – the same network used for e-prescribing, at much lower cost than it once did using paper forms and the postal service. They are also offering patients the ability to upload those same CCR XML files to their accounts on Google Health ,Microsoft HealthVault, or the Cleveland Clinic's PHR. Without these business case drivers, we doubt that CVS/MinuteClinic would have standardized this set of processes or continue to look to reduce their costs of data exchange.

2. **Keep it simple**: Lowering complexity will increase the ability to adopt a standard. A strategy of building on early, easy wins that can be built upon will go further than creating a more complex, comprehensive standard at the beginning. We believe that the relative ease of use and simplicity of design has contributed to the early uptake and adoption of the CCR standard across a wide variety of projects and programs in the U.S. Google, for example, chose the CCR standard for use within its Google Health personal health record application largely on the basis of the familiarity of its XML schema and tagging conventions to non-health care experts on its engineering team. As another example, Kevin Peterson MD, at the University of Minnesota, is using the CCR standard to extract data from multiple, disparate EHRs located in various practices to create a virtual repository that can be used for clinical research. The AAFP's practice based research network has an AHRQ funded project, called DARTnet, which also uses the CCR standard to aggregate data from multiple practice EHRs to answer new research questions. In each of these cases simplicity of the exchange standard has been key to the success of programmers and developers who are working in an otherwise very complex environment with a large number of proprietary systems to connect.

3. **Strong clinician involvement early**: The standard must satisfy a clinical need for the clinicians. It must also take into account the care delivery process and workflows. This is only possible with clinician involvement throughout the standard's development and deployment. Many of the standards recently created in the data exchange and quality space have been created in a lab. By that I mean, a group of talented engineers and informaticists create a sound work product from a technical specification, but still the standard may not fully take into account the utilization of the standard during care delivery. **Having strong clinical input and leadership from the early phases of the standard's development, which carries through testing and real world utilization, leads to a strong clinical focus for the standard, which then increases the value of the standard**.

We have certainly seen this with the adoption of the CCR standard. Clinicians led the effort from the beginning in collaboration with non-physician technologists. Companies like Google, Microsoft, Meduity, Sandlot, and Visionary Medical Systems, and many others are using the standard today in large measure because of its clinical validity and the continued championing of the CCR by physicians and nurses. Some of these companies send data from EHRs (like Allscripts and NextGen) to a regional health information organization (RHIO) and to the patient's personal health record (PHR).

4. **Real-world testing**: Any standard that is not developed from a proven implementation in the market must undergo real-world testing of its functionality and usability. Mandated standards that do not work well and which are released into the market without testing will be detrimental to further standards adoption and possibly create wide confusion. And real-world testing must reflect the actual characteristics of the health care delivery system. Over 80 per cent of health care visits in this country occur in medical practices of 10 or fewer doctors. Over half occur in very small practices with 3 or fewer doctors. Testing standards in these environments is difficult and challenging, but one cannot and should not assume that standards tested in large group practices or hospitals will necessarily function at the same level of efficiency in much smaller settings or in the community. We have learned from experience with the CCR standard that the early use of the standard was accelerated by helping to organize groups of companies or vendors whose product offerings were similar, such as EHRs or PHRs or decision support software, and then assisting developers in each of these classes to collaborate with one another to test the standard for use cases specific to that class of applications.

5. **Standardization is not the end goal**: As the Nation moves forward with health IT, we must not be myopic and solely focused on the technology and standards. This point was articulated well by Carol Diamond, MD from the Markle Foundation in her article in the August 2008 Health Affairs journal. We must focus on the desired outcomes we all want, such as higher quality, improved safety, lowered costs, and increased efficiency. If we only achieve adoption of certified, standardized health IT products that do not enable us to reach those goals, we have lost a great opportunity.

It has been a pleasure to speak with you today on this very important topic. We were encouraged to see language in the health IT portion of the American Recovery and Reinvestment Act of 2009, which articulated that the Secretary of Health and Human Services and the National Coordinator of Health Information Technology must consult with NCVHS. We strongly encourage you to exercise that opportunity to provide leadership and insight, making sure the Nation's health goals are meet by this unprecedented investment in health IT.

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