Health Information Exchange (HIE) Hearing
Tuesday, January 29, 2013
The DuPont Circle Hotel
Washington, D.C.

Good afternoon. I am Neal Patterson, Chairman and Chief Executive Officer of Cerner Corporation. Let me begin by thanking Dr. Mostashari and members of the HIT Policy and Standards Committees. Consumer-mediated exchange is an important topic and I am pleased to have the chance to comment on it this afternoon.

Since the earliest days of Cerner, I have spoken of our ambition to put a system into healthcare. This system would be an open ecosystem, with the individual at the center, where providers and suppliers of every size can contribute to the delivery of care. It remains a guiding principle as we enter our fourth decade as a company.

Cerner believes the individual should own a copy of their complete health record. Well before the HITECH era, Cerner worked with a bipartisan group of U.S. House and Senate members, along with a collection of think tanks across the ideological spectrum, to craft legislation for Independent Health Record Trusts (IHRT). Health Record Trusts put consumers in charge, establishing that the individual should control their health information.

We also have made entrepreneurial investments in care coordination strategies across multiple communities. By making aggregated health record summaries available to community providers, we sought early validation that these tools could increase quality and decrease cost. And as new business models around Accountable Care take hold, we think the potential to bend the cost curve has never been greater.

But for all the promise of new technologies and of consumer-mediated HIEs, I am here this afternoon to lend my voice to the call for a more aggressive approach to data liquidity and exchange.

The healthcare IT community has an opportunity to play an outsized role in the dramatic shift towards Population Health Management (PHM). Accountable Care Organizations (ACOs) must leverage data from distributed, heterogeneous environments. No single vendor will be able to meet the needs of an entire community. Cross-vendor data liquidity is a necessary requirement for the successful evolution of these new business models.

Cerner is, for its part, committed to an open healthcare ecosystem. We are committed to enabling data liquidity for every product. We are committed to enabling our solutions to send and receive data in a universal manner. We are committed putting these principles to work for every system in every venue of care.

As a result of Meaningful Use, we now have the chance to move into what should be a post-interface contract era. There is no reason that we can't have plug-and-play data liquidity delivered at commodity prices.

As a incremental step in that direction, Cerner was pleased to join "the pledge" to enable the "view, download, and transmit" (VDT) capabilities in our Millennium software. It was a commitment well in advance of the timing required for Stage 2 of Meaningful Use. We agree with ONC's emphasis on empowering patients to take responsibility and control for their own health data.

As part of our commitment to universal data liquidity, Cerner has contributed tens of thousands of lines of open-source software, personnel and money toward the development of the Direct Project. We applaud the good start that ONC achieved in Stage 2 with the decision to require vendor support for a universally available "**directed push**" capability.

As we look forward, we now would urge the ONC to define a clear parallel "safe harbor" for a universal "**directed query.**" Any patient should be able to electronically authorize the release of health information to a current provider regardless of where the information lives. The process should be simple, fast, and universally available. It should work across all EHRs, regardless of vendor.

We believe that directed push and directed query are necessary steps forward for true data liquidity. It is worth noting for the Committee members that these tools still may fall short of providing safe, accurate flow of data. We continue to believe that there is a need to take on and solve the patient identifier problem. As the volume of data interchange increases, we cannot continue to rely on statistical matches based on a highly constrained set of data elements. We need to set aside the admittedly tough politics of this issue and do what is right for healthcare consumers.

Cerner is committed to exploring an industry-lead approach to the voluntary use of patient identifiers based on existing strong credentials, such as a driver's license or other established identity. We understand the privacy implications of such an approach, but we believe proper safeguards can be put in place to ensure that privacy concerns are met.

This decade offers us the chance to put a true system into healthcare. There are some that would argue we are moving too fast. When it comes to the issue of data liquidity, it is my belief that we cannot move fast enough. There are others that would contend that Meaningful Use is too complicated. I would tell them that it is the nature of the business we are in.

If we can rise to the challenge as an industry, we have a chance to deliver a golden era of healthcare. It a system where consumers not only have a right to their data, but also have the ability to mobilize it in pursuit of better health.

Thank you Dr. Mostashari and members of the HIT Policy and Standards Committees for affording me the opportunity to share my views this afternoon. We have included written responses to the specific panel questions as an appendix to these remarks.

Appendix
Panel 4: Consumer-Mediated Exchange.

Cerner responses to specific questions.

Where are we today in enabling patients to access their data? What is working? What is not?
There has been varying reception in the industry on capabilities to enable patients to access their data. The initial incarnation of the Blue Button initiative was a step in the right direction, but we believe that in order for these data to be truly useful, structured data should be required. We applaud the addition of some vocabulary and nomenclature requirements to the Stage 2 Meaningful Use requirements; we would encourage that further standards be defined for every key element that is required to be enabled for download/transmit. Our experience in working with Continuity of Care documents generated by many different EMR systems (for Stage 1 MU) shows that very little of that data is packaged in a reliable, consistent way, rendering it much less useful than it could be. While we believe the market should have the freedom to innovate, that freedom should not extend to the definition of "liquid data." The Internet would have struggled to gain traction if the market didn't agree on TCP/IP and HTTP as standard protocols; the same can be said if our industry doesn't have clear standards for how we interchange key clinical data concepts.

What is working? The phased addition of more and more patient access requirements to Meaningful Use is certainly driving the agenda forward. The feedback we have heard from many of our clients is that they are pleased by these requirements. Cerner has provided the technology to enable patients to access their health information online for the almost a decade, and these capabilities have been deployed by some of our progressive clients for that long. Many more of our clients want to do more in this space, but with all the other initiatives and priorities imposed internally and externally, they have struggled to make online patient engagement a priority. Making it a required element of Meaningful Use has enabled them to justify the effort and expense for these initiatives.

We are also strong supporters of, and major contributors to, the Direct Project. We believe that this universal means for secure “directed push” will have a dramatic impact in giving people access to and control of their health data.

What more do we need to do to be sure the VDT requirements in meaningful use stage two creates real and meaningful electronic data access for patients?
We regard the VDT requirements as a major step forward. As mentioned previously, the most notable thing that can be done to make VDT meaningful is to ensure that the key components of the electronic data have unequivocal standards identified for how the data should be structured and encoded. Especially when it comes to transmission of that data, if there aren't comprehensive standards around structure and nomenclature it will be very difficult for receiving systems to know what to do with it.

We note that many questions remain on how different Direct sending and receiving systems "trust" each other. These “trust framework” problems must also be solved. Any model that

relies on “whitelists” of which systems can send to them will ultimately fail to scale, as it will become impossible for every system to keep track of every other system. Again, if we look at the models the Internet has established, email would not work if every email server had to know about every other email server. We encourage the pursuit of a readily scalable trust models for use of Direct in the consumer (PHR) space, such as a discoverable certificate model.

Another challenge facing health care organizations are the variances from state to state regarding definitions of sensitive data and rules around parental access to that data. We understand that this is a states rights issue, but we would encourage a national effort to standardize how these rules are represented. Similar to an effort underway by the CDC, we could envision a centralized national web service that could be queried real-time to determine, based on the patient's state of residence and the state in which the health care organization operates, what the appropriate age of consent is and what constitutes "sensitive data."

On the “View” front, we support the ONC defining the minimum data set that must be available for patients to view. This helps ensure a baseline level of information that all patients have the right to access. We do believe, however, that leaving the market free to innovate the best ways to display this information in a useful manner will have the best outcome. We encourage the ONC to resist pressure to mandate a specific display format.

One of the biggest challenges for patients is understanding the information that they're looking at. MedlinePlus Connect, provided by the NIH, is a great platform to enable patients to better understand the health data they're seeing; we would like to see this information be more embeddable in the healthcare organization's native patient portal, rather than requiring linking out to MedlinePlus's website for details. This core content is a great national resource, and making more natively embeddable would increase its utility and adoption.

What is ABBI and how will it help?

We are very supportive of the Automated Blue Button Initiative. Cerner is a contributing member of the ABBI Push work group, and believe that this effort will have a profound impact on empowering the role that patients can play in managing their own health. While VDT is a step forward, the ability to automate the transfer of information will be the tipping point for traction. We have not seen, outside of a small core of advocates, very heavy consumer interest in managing their portfolio of health information. Expecting a consumer to log into a website every time there is new data available, and manually asking for that data to be transferred to another place, isn't a sustainable model. Financial data aggregation services did not gain a lot of traction in the market until they could update a portfolio automatically. We believe that it will be no different in the health information world. As the ABBI model matures, we expect to see consumers look to their medical home as the "portfolio manager" of their health information. Rather than relying on a consumer to curate their own medical record, ABBI will make it possible for anyone to automatically feed all of their health information to the organization accountable for their health and care; a model we think much more realistic in the next 5-10 years than consumers taking on direct responsibility for managing their records themselves, on local PCs or other potentially insecure devices.

What are the opportunities and challenges to enable consumer-mediated exchange in the next two years? (e.g., patients have access to their own data, and have a way to share it with providers)

The biggest opportunity is that a consumer-mediated exchange model cleanly addresses many vexing problems, including arguments about "ownership" of the data and establishing HIPAA-recognized relationships between often competing health care organizations, and puts these decisions in the hands of the consumer. This will let innovation proceed much more quickly, and will greatly shorten the ramp-up time required for these strategies to take hold.

Many providers are asking, "How am I supposed to make time to deal with all of this new information coming at me?" While technology will help ease some of this burden (strip out redundant information, collate it into an easily-digestible format, etc.), the fact remains that there will be much more information available to providers and many providers are concerned about the increased time it will take to consume the information, as well as with the potential liability associated with being responsible for so much more information being available.

Another challenge exists on the "pull" side of the ABBI initiative. While we do not currently participate in the pull workgroup, we have interacted with some of the other members of that workgroup in trying to create a proof of concept. The push strategy is fairly clear-cut; a Direct transmission from one Direct mailbox to another. The pull strategy, we believe, still has several challenges to work through. One model being proposed would require each EMR system to be able to directly connect with every other; for example, to create a web service to pull health information from, then the pulling system has to be added as an authorized consumer of that web service. This model would require many point-to-point connections and conversations, which might not be sustainable in the market, and which would require a complicated trust framework. There are several strategies that could be pursued to overcome this challenge, but we would discourage a model like the one currently described.

How should we get the word out to patients about new opportunities to access, aggregate and share their data through meaningful use and ABBI efforts?

The best route to communicate with patients is through their providers. By continuing to provide incentives for providers to encourage their patients to use these systems, we stand the best chance of getting the word out. In our experience with our clients, the providers who take the time to educate their patients about their online capabilities have the best adoption rates. We have some clients who have upwards of 95% patient participation in their patient portal. While this number may be higher than many providers can expect, it is attainable. The providers with this rate of adoption personally sit down with each patient, get them signed up for their portal, and take them on a quick tour of the features. They are also highly responsive to communication received from their patients, establishing their patient portal as a reliable, and often faster, route to communicating with them. While some direct-to-consumer marketing of these initiatives might be interesting, we believe a program designed to support providers in educating and encouraging their patients, along with enabling providers to monetize the time spent around those activities, is a model with a higher likelihood of success.

What policies, technical requirements, funding changes or convening at the national level would be helpful to further consumer-mediated exchange?

We have covered many of these items in our previous answers, but in summary:

- Centralize and codify the state-level requirements around sensitive data and age of consent
- Create more standardization and structure around the requirements for the "payload" that can be downloaded/transmitted
- Implement a more abstracted strategy for the "PULL" model that makes it possible for consuming systems to pull information without having to wire connections directly to source systems. Such as system might be based on OAuth-like models in use for personal Internet services like Twitter, etc. In these models, the consumer directly grants access rights to a trusted third party, which can then initiate "pull" requests.
- Clarify the legal position and expectations around liability of providers for clinical information generated elsewhere that is transmitted to them. Also educated and clarify the proper role for patient-generated data.
- Seek funding for providers to do marketing of these capabilities to their patients (or incentives for them to do it)