Testimony of Neal L. Patterson, Co-founder, Chairman and CEO of Cerner Corporation

U.S. Senate Committee on Health, Education, Labor and Pensions

**Hearing: Health Information Exchange: A Path Towards Improving the
Quality and Value of Health Care for Patients**

June 10, 2015

Dear Chairman Alexander, Senator Murray, and members of the HELP Committee, thank you for inviting me to share my ideas about how to improve health information exchange for the benefit of every American. I appreciate your openness to ideas and action from the private sector as well as administrative and legislative change.

My name is Neal Patterson. I am co-founder, chairman and CEO of Cerner. We are a leading health information technology company with a projected $4.7 billion in revenues in 2015. We will spend more than $650 million on research and development in 2015. We employ 21,000 associates who operate in more than 30 countries worldwide.

The intersection of health care and IT is one of the most important in modern society. Every citizen touches and depends on both.

I appreciate the opportunity to share Cerner's perspective on what can be done to create a more interoperable health system. We believe that every individual has a right to access their complete health record, regardless of where it's located or what system contains the data. It is immoral for any organization to block the flow of information that could help individuals—and their providers—make better-informed decisions about their care.

In other industries beyond health care, from retail and entertainment to banking to manufacturing and distribution, information technology has wrought massive change and materially improved our lives. It is not simply the efficiencies of IT. When things are digitized, they change.

Digitizing content drives transformation. Digital music recording paved the way for file sharing and iPods to change our music collections. The movement of news online changed how quickly we receive the news. ATM cards changed how we bank. Social media has enabled political mobilization against dictatorships. The second-order effects of content digitization are profound.

You don't always see these effects coming. They happen when data liquidity allows innovators to use information in new ways.

In health care, HITECH and Meaningful Use are not perfect, but they are helping move health care onto a digital platform. As a society, we may be closer than we think to a golden era when science, intelligence and insights from big data can become a natural, unforced part of health care.

Two qualities are important to enable this type of transformation. Health IT platforms must be open, and they must be interoperable.

The quality of being open is what allows independent developers to build "apps" and extensions that work with existing health IT platforms. After years of little movement, our industry is finally making real progress toward being open to outside development. It will fuel an entrepreneurial wave of novel health IT apps and services that will address particular needs of providers and patients.

For all the progress and promise, however, our current efforts are insufficient if they still serve a bunch of disconnected digital silos. Current health IT systems lack true interoperability, and the lack of true interoperability is failing patients. Without it, we risk missing the moonshot transformation that has positively changed other industries and lives.

My wife has been fighting breast cancer since 2007. I have her permission to share her story. She has had procedures in the last eight years ranging from mastectomy, radiation and chemo to brain surgery and genome sequencing. Her diagnostic and treatment journey has taken her to multiple providers, and her records have wound up in more than 20 different health organizations' EHRs. Everyone has a *piece* of Jeanne's record, but no one has the whole picture.

Because there is not widespread interoperability, Jeanne carries printed copies of her records around in shopping bags. Each record she carries represents a phone call, a wait in a line at a records desk, a fax or a photocopy. The burden of assembling those records is what she calls the "train wreck."

It's, of course, not just cancer patients who live this reality. It's almost all people with chronic conditions who have to see specialists … and people who move … and people who rely on emergency rooms for their care. In reality, everyone in the chamber today has experienced this issue. In the United States, the average person has seen 18 different doctors. If you're over 65, the number increases to 28.[i] It doesn't matter if the records are across the country or across the street. If the systems are not interoperable, the result is the same.

Here is my litmus test and vision for real, patient-centered, true interoperability. It is when you as a patient can go to a new doctor who hasn't seen you, sign your name electronically giving your consent, and then the doctor can click a button in the EHR and compile what is most relevant from your lifetime record that you want to be shared, pulling information from many places. We actually are quite close to being able to realize this vision, and the issues in realizing it are largely not technical ones.

Over the past decade, there has been some good progress on interoperability. Standards have progressed that define how and what information is shared to whom and when. Governance and privacy standards are also progressing. We are members of Carequality, an industry coalition focused on governance. I think Congress's recent focus and sensitivity to the behavior of data blocking (intentional or inadvertent) is a good thing. There are current efforts to create the concept of "semantic interoperability," which is extremely powerful and has the potential to unleash enormous innovation that will interact with the EHR platforms. But it is my testimony that, while this progress is good and necessary, it will not realize the vision I shared above. I want

Jeanne's doctors to have access to her full lifetime record. That vision requires a system for national patient identification, for record location tracking and for patient-driven consent.

There is a tendency to use isolated interoperability success stories as the poster children for progress and defense of the status quo. Some regard largely single-vendor networks or "intra"-operability as equivalent to interoperability. It's a form of progress, but it's not the same, because your records and Jeanne's records are not all on one vendor's system. They're spread out across every vendor in the industry. It's just not enough. If we remain satisfied with this progress, patients could wait decades to see real interoperability. It will leave too many patients carrying too many bags for too long.

As a health IT industry, the electronic health record community has grown up alongside each other—Meditech, Cerner, Epic, McKesson, Allscripts and many others. We were out conquering the map. Each of us has had our own version of building our core capabilities. Competition has been healthy, and it has driven a lot of innovation. But too often these competitive instincts led to technological silos.

Outside of health care, there are plenty of examples where competing business interests, spurred by consumer pressure, came together to solve interoperability problems. Apple and Android phones can talk nationwide. The Verizon network connects with the Sprint Network. My Microsoft Outlook email communicates seamlessly to Google Gmail. My ATM card works at nearly every machine worldwide. Government may have helped, but industry played the biggest role.

In 2013, in an effort to augment the standards and governance work playing out in Washington, our industry sought to take on a set of big issues that are impeding true interoperability and data liquidity. Along with some other vendors, we created a non-profit called CommonWell with an eye toward addressing three barrier issues to true patient-centered interoperability: patient identification, record location and patient-driven consent. CommonWell invited all electronic health record vendors to come together.

To solve for the needs of patients, we wanted an approach that was national in scale. The service it offered had to be available at a very low, utility-like cost to providers. And it goes without saying that it had to safeguard privacy and the trust of individuals and providers.

Achieving this level of interoperability in health care requires a virtuous cycle of product innovation and standards development and evolution. It also requires all the players in the industry to agree that patient-centered interoperability needs shared networks between vendors, not just a trickle of individually negotiated connections. Waiting around to fulfill the next request to connect two hospitals to each other or to a local HIE meets the letter of the law. But getting to full interoperability requires active cooperation among all the vendors, and their acceptance that once technological silos are eliminated, they will have to compete on innovation, quality and cost. We do not have this yet in health IT, but this kind of dialogue at the national level has a chance of creating real change.

What we do have is CommonWell, a non-profit vendor-to-vendor network, national in approach, which providers and hospitals can access on behalf of individual patients. It is open to the entire industry, and its members include Allscripts, Athenahealth, Brightree, Cerner, Evident (formerly CPSI), Greenway, McKesson, Medhost, Meditech, Merge Healthcare, Sunquest, and other companies—which includes every major acute care EHR company in the industry with the exception of one. Cerner is committed to any effort to advance true interoperability, and the CommonWell network is in my opinion our industry's best cooperative effort so far. I have made it clear that if someone establishes another open network that has a reliable method of patient identity management, record location tracking and patient-driven consent, it will also have my support and participation.

As for Washington's role, it must be clear to all that the policy of this country is true interoperability. The Office of the National Coordinator (ONC) must continue pressing its framework for interoperability, convening, facilitating and evolving important standards work. Vendors and providers must enable sufficient transparency around data sharing to allow keeping a watchful eye on behaviors in our industry. Congress should not be afraid to act. Whether intentional or unintentional, behaviors that restrict patient choice, throw up roadblocks to true interoperability, or use control over data to further market share should be challenged. None of us have a perfect record, and we can all do better.

The subject of interoperability can quickly become blurred into an alphabet soup of acronyms, nomenclature, standards, governance and use cases—so much so that we lose the point. In the end, you will know it when *you* see it. It's when you can go to your doctor and they can push a button and assemble the relevant parts of your lifetime record that you want to be shared with your doctor.

We all can cite how the rising cost of health care is consuming more of our resources as a family, community and country. I am convinced that information technology is the single greatest lever for creating value in health care by eliminating waste, variance, error, delay and friction. It can put a system into health care.

We have a chance to deliver a golden era of health care. It's a system where consumers not only have a right to their data, but also have the ability and the financial incentives to mobilize it in pursuit of better health.

We have a chance to make Jeanne's shopping bags a thing of the past.

I look forward to working with the industry, as well as members of the Committee, to advance that vision.

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i Practice Fusion survey conducted by GfK Roper, 2010.