Carolinas HealthCare System

Testimony of

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Chairman Alexander, Ranking Member Murray and members of the Senate Health, Education, Labor and Pensions (HELP) Committee, I appreciate the opportunity to testify today on behalf of Carolinas HealthCare System and the Premier healthcare alliance, where I serve as the Chair of Premier's Member Technology Improvement Committee (MTIC), which consists of member CIOs that advise Premier's leadership and the Board on health information technology (HIT) matters.

To start, I applaud the leadership of Chairman Alexander and Ranking Member Murray for holding this important hearing today. This is a vital topic, important to the well-being of our citizens and our nation.

Carolinas HealthCare System is one of the largest health systems in the country. We have a diverse network that includes more than 900 care locations, 3,000 physicians and advanced clinical practitioners, 39 hospitals, behavioral health centers, home health care, nursing homes, hospice and palliative care. For 11 consecutive years, we have been named one of America's Most Wired Hospitals by Modern Healthcare. We are the only health system in North or South Carolina to have received HIMSS Analytics Stage 7, the highest level, for adoptions of electronic medical record (EMR) technologies in both outpatient and inpatient settings. We also are a member of Healtheway, a founding member of Carequality and being certified for the national eHealth Exchange. And just last month, Carolinas was named by Forbes magazine as one of the nation's best employers.

Our mission is clear – to create and operate a comprehensive system to provide healthcare and related services, including education and research opportunities, for the benefit of the people we serve. In 2014, we had more than 11 million patient encounters, touching the lives of those that live throughout North and South Carolina and northeast Georgia. Each day, our 60,000 teammates dedicate themselves to providing the best medical care possible. Much of the care they deliver each day is extended, buttressed and enhanced by the advances in technology.

Premier, Inc. is a leading healthcare improvement company, uniting an alliance of approximately 3,400 U.S. hospitals and 110,000 other providers to transform healthcare. With integrated data and analytics, collaboratives, supply chain solutions, advisory and other services, Premier enables better care and outcomes at a lower cost. Premier, a Malcolm Baldrige National Quality Award recipient, plays a critical role in the rapidly evolving healthcare industry, collaborating with members to co-develop long-term innovations that reinvent and improve the way care is delivered to patients nationwide.

HIT interoperability is foundational to improving quality and value of healthcare to patients:

Despite its potential, the current HIT ecosystem continues to be challenging for healthcare providers because of a lack of interoperability between systems. Cost-effective, efficient, and easy to use and integrate health information is foundational to advancing and providing excellent care in this country. Patients and care providers are missing opportunities to improve people's health and welfare when information about care or health status is not easily available. It is critical for us, all of us, to fully use and leverage the health data that is vital to improving patient care. Doing so will help us discover and develop better treatments while improving safety and quality in the delivery of that care.

As this committee heard earlier this year, the current market incentives are not aligned with open exchange of necessary healthcare data in cost-effective ways. The sharing of data that sits in software systems across the care continuum is not only technically complex, it also is expensive. Data resides in many systems, not just electronic medical records. Registration, billing, lab, pathology systems, medical devices, sensors and monitors, to name just a few, all have vital data that can and should be integrated and accessible across the care spectrum, no matter what the underlying software system is. The difficulty in achieving this has an impact not only in care quality but also in cost.

The cost to build interfaces and test and maintain those interfaces is not insignificant. At Carolinas HealthCare System, we have been successful with many of these integrations. In order to meet the needs of our patients across our geographies and throughout the care continuum, we have interfaced with more than 125 systems to get data into our EMRs. One critical factor to our success has been with our patient matching biometric program which uses palm vein scanning. Patients scan their palms, and we are able

to match them to the data in many of our systems, ensuring that the right information about the right patient is available. Using this system, which 99 percent of our patients do voluntarily, results in less than .11 percent failure rate. That means 99.9 percent of our patients are correctly matched in our systems. The national average for this is eight to 10 percent, while a best practice is 5 percent.

Achieving this integration has not been easy or inexpensive. Today, in order to build the bridges that connect disparate data sets necessary to provide comprehensive and informed decisions or care, providers must either pay their original system vendors thousands and sometimes millions of dollars to custom code linkages so they can "talk" to other systems, or they often find paper-based workarounds that are fraught with potential for both errors and wasted resources and expense.

The costs of sharing this critical data among other health systems is not just in dollars. It creates an environment of inefficient use of some our most valuable resources, our people. Having care providers faxing or mailing information to other providers is not the best use of these highly-skilled clinical people.

More than the impact on providers and hospitals is the impact on the patients we serve. In order to truly engage our patients in the management of their care and to give them the tools they need to manage and understand their health status, we must provide them with this clinical information. Take for instance a patient who has diabetes and other chronic conditions. This patient may be receiving care from multiple physicians who are documenting their care in multiple systems. In order that the care be coordinated, up to date and based on reliable current information, those physicians need to have the information readily

available when they are making clinical decisions. The lack of easy exchange of these data amongst all providers and the patient is the challenge.

Pathway to Achieving Interoperability:

The goal should be to design and implement a secure HIT ecosystem that enables an easy exchange of health information in timely and cost-effective ways. The system should promote collaboration among all stakeholders, from patients to providers to vendor partners and payers. We need a system of standards that focuses on improving healthcare quality, efficiency, safety, affordability and access through government and market incentives, while encouraging innovation and competition.

At Carolinas, for instance, we care for more than 60,000 people with diabetes. Continuing to manage their care through today's methods is not optimal. The shift from volume-based care, where we are paid for the numbers of things we do or the number of patients we see, to value-based care where we are compensated for the quality of the care, leads us to this new care delivery model. Population health programs like we are implementing at Carolinas will advance the delivery of this value-based care where providers and patients are linked and partners in the care.

To accomplish these goals, we ask for a combination of Congressional leadership and Administrative actions that promote policy principles that further open health IT infrastructures. In creating those structures, we need clear rules of the road for providers and vendors alike through establishment of functional data and transport standards, and methods to measure and test functionalities, with enhanced enforcement tools for regulatory bodies to drive compliance in the marketplace. These include:

- Governance: Private-public partnership on HIT interoperability governance should be established to provide clear rules of the road on interoperability. This should be done in consultation and coordination with federal agencies, such as HHS and ONC, and the private sector. Providers, vendors, patients and payers should be consulted. The government entities should provide regular reports to Congress and the Administration on current standards development status as well as ready to market timelines and assessments for their applications.

- Functional data and transport standards that promote interoperability and innovation: The governance mechanisms should focus on the development of functional data and transport standards in key areas including: patient matching, terminologies, clinical data query language, security, open application program interfaces (APIs), and clinical decision support algorithms as well as business practices and policies.

- Public interoperability and cost efficiency measures: Transparent and public measures of interoperability should be developed in collaboration with the federal government, including HHS and ONC, and standard-setting bodies in consultation with the private sector and be required as part of ONC's certified technology program.
    - These measures should be validated and tested in terms of functional standards, processes, and their maturity for application in the marketplace in a timely way, and within specific use case scenarios.

- Measures should include business and implementation approaches that deliver functional interoperability outcomes and include operational processes and implementation practices.
- Measures should also include assessment of cost efficiency metrics achieved through incorporating innovative technologies, such as existing API, which is an open source code that enables third party applications to exchange data.

- Transparency: Data should flow freely and easily. Determinants of transparency should include:
  - Availability of "free" (no cost) export of publishable EHR domains.
  - Prohibition of specific fees for access to necessary data through API or other functional standard callable methods.
  - Publication of technical instructions on how to interact with APIs, interface standards or other callable methods. These should be published either publicly or broadly to any authorized third party.
  - Technology and devices that generate health information be required to publish clinical data to any other authorized consuming applications, including EHR/EMRs, to create interoperability. Consuming applications' ability to develop methods to ingest information from other HIT assets, including devices, should adhere to current and future medical device interoperability standards.

- Enforcement of functional data and transport standards and measures of HIT: The federal government should be enabled to enhance its enforcement tools to ensure functional data and

transport standards and measures compliance of vendors through its certified technology program.

Let's go back to our patients with diabetes. With a more robust and open system, the patient could send to his or her care provider, their daily glucose readings from their mobile device. At Carolinas, they soon will do that through MyCarolinas Tracker, which integrates data from 60 consumer-based medical devices. Those readings would be easily posted and translated in a care management system, where a coordinator is monitoring for fluctuations. In the meantime, the coordinator is scheduling the patient for a check-up with the physician. Before the patient goes in for the visit, they log in to look at the latest lab and test results on them. During the visit, the physician sees all the data from the patient and all the data from the clinical systems in the EMR. The physician can also view when the patient had an ER visit at another hospital while on vacation. This allows the physician to understand not only today's clinical data, but also the life of the patient outside of the office visit.

The technology is now available to realize the goals of what the Institute of Healthcare Improvement calls the Triple AIM – improve the health of the population served, improve the experience of each patient, and improve the affordability of the care.

Thank you again for the opportunity to testify today. As this committee continues its work on improving HIT infrastructure and data exchange, we urge the Members to require HIT interoperability as foundational to facilitate research, storage and use of health data to advance patient care, quality and safety, while reducing costs. Thank you on behalf of the providers at Carolinas HealthCare System and Premier healthcare alliance and the patients we serve for this considerable transformative work you are doing for the benefit of the communities we serve.