John Glaser, PhD, Vice-President and Chief Information Officer, Partners Healthcare, Boston, Massachusetts

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Before the Committee on Veterans' Affairs of the United States Senate

On the VA's Health Care Information Technology Challenges

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Mr. Chairman, Senator Burr, and members of the Committee: Thank you for inviting me to take part in this hearing on the state of information technology within the Veterans Health Administration.

My name is John Glaser. I am the Vice President and Chief Information Officer of Partners HealthCare. Partners HealthCare is an integrated system of medical care whose members include the Brigham and Women's Hospital, the Massachusetts General Hospital, community hospitals, health centers, physician practices and visiting nurses. I have been a CIO for 20 years.

I am also the Founding Chairman of the College of Healthcare Information Management Executives (CHIME); the country's premier organization for healthcare CIOs. I was recently inducted into the CIO Hall of Fame hosted by CIO magazine.

My testimony centers on three areas: the accomplishments of the VA health care information technology (IT) program, the importance of information technology alignment within a health care organization and the difficulty of integrating two large, complex electronic health records - the VA and DoD.

Accomplishments

There is no question that the world's health care CIOs and the heath care IT industry regard the Veterans Health Administration information technology program as extraordinarily successful. I personally believe that the VA program is the most accomplished program in the world.

Across the country, 15% of hospitals have broad physician use of Computerized Provider Order Entry (CPOE). Nine percent of physicians use advanced electronic medical records (EMR) with clinical decision support. In the VA, CPOE and EMR use are commonplace. For example:

- 85% of the 57 million outpatient visits and almost all of the inpatient notes are online
- 94% of the outpatient prescriptions equivalent to 200 million 30-day prescriptions as well as almost all of the inpatient prescriptions are entered directly by the prescribing clinician

The VA has not only achieved remarkable levels of adoption of health care IT but has also leveraged those systems to make very impressive gains in care. A study published in 2004 compared care of VA and non-VA patients in 12 communities and found that the care for VA patients scored higher on care quality, chronic disease care and preventive care.

Partners HealthCare is widely regarded as very effective at applying information technology to improve care. While we have high levels of adoption of CPOE and the EMR and we have improved the care that we provide to our patients, we have not yet achieved the adoption levels or care gains being seen today at the VA across more than 150 medical centers and greater than 1,400 sites of care.

In addition to our efforts to improve today's patient care, Partners HealthCare has established highly regarded research programs designed to explore new uses of the information technology to improve health care. We routinely partner with the VA in grant applications and research studies. This relationship recognizes the track record of the VA in health care information technology and the VA's sophisticated understanding of new opportunities to improve care.

I appreciate the fact that the VA has information technology challenges. So does Partners HealthCare and every other healthcare system in the world. We also face threats of data loss, projects that are over budget and under perform and difficulty integrating complex information systems across organizational boundaries. While these challenges must be effectively addressed by the VA, I would encourage us to not forget the excellence that has, and continues to be, exhibited by the VA health information technology program and the world's admiration of that program.

Alignment of Information Technology

Numerous studies of information technology investments by a wide range of organizations across many industries have all identified a factor critical to effective use of the technology - alignment of the information technology function, agenda and accountability with the needs and management of the organization.

Organizations, such as American Airlines, Federal Express, Capital One and Merrill Lynch, which have consistently demonstrated exceptional information technology use have several common characteristics:

- The leadership of the organization sets the information technology strategy and agenda. The leadership actively defines the plan, manages project resources and implementation, addresses issues and assumes accountability for results.
- The staff of the organization have been given the responsibility for the ensuring that an application meets their needs, managing specific implementations and changing related process.

Failure to achieve strong alignment can pose significant problems for the organization. Information technology projects may be well managed and the information technology group may be very efficient but, without alignment, they are at great risk that their work is not addressing the priority needs of the organization and the delivered applications do not reflect the needs of the staff who do the organization's work on a daily basis.

The excellence that characterizes the VA health care information systems was a result of exceptional alignment. The VA Health Administration leadership had direct authority over the information technology strategy, resource allocation and management of results. The physicians and nurses who deliver care to our veterans had direct access to the analysts and programmers who created the applications; indeed the analysts and developers viewed these providers as their true bosses.

I am concerned that recent changes in the VA information technology organization structure will damage alignment. Steps that centralize authority within the VA in a manner that reduces the direct management of information technology by those who are accountable for the delivery of medical care and are most knowledgeable about the needs of the healthcare system runs a very significant risk of undermining the progress that has been made.

These concerns acknowledge the value of a central VA information technology group in areas such as developing technology standards and providing non-healthcare specific financial systems. However, too much centralization will damage alignment and diminish the excellence of medical care.

Interoperability of Electronic Health Records

The value of interoperability of electronic health records across organizations is difficult to dispute. Such interoperability is likely to improve the safety, efficiency, timeliness and effectiveness of patient care.

The difficulty of achieving interoperability of electronic health records is difficult to dispute.

There are a large number of formidable challenges to achieving comprehensive interoperability.

While the federal government is making significant progress in defining standards for healthcare data, these standards are still largely in the approval process and have not become widely adopted across the industry.

There are critical aspects of healthcare data for which broadly accepted data models and standards do not exist, for example, the history and physical.

Accurate identification of patients who have different medical record numbers remains difficult and labor intensive.

Procedures and processes must be developed that provide "rules of the road" for using exchanged clinical data. What categories should be used to classify physician notes? Under what circumstances can a physician in one organization change the problem list entry of a physician in

another organization? Which clinical staff from one organization can discontinue a medication given by a provider in another organization? How should institutional review board processes work when the data spans multiple organizations? How will privacy policies and procedures be enforced across organizations?

There are complex technical issues that surround the interoperability of electronic health records that span organizational boundaries. There are also complex governance, policy and procedure issues that must be addressed.

The VA and DoD have made considerable progress in achieving interoperability between their electronic health records. Outpatient medication and drug allergy data is being exchanged. Mechanisms exist for the VA systems to receive DoD health date for discharged military personnel.

Achieving the interoperability of the VA and DoD electronic health records is an important goal. And those who are charged with creating this exchange should be held accountable for delivering on their plans. Nonetheless, we should all appreciate the immense challenges that exist. And we should respect the fact achieving this goal will take several years.

Conclusion

We all appreciate the importance of the VA's health information technology program to the efforts to provide great medical care to our veterans. We also all appreciate that the program, as do all large information technology undertakings, faces issues.

As we collectively tackle those issues, let us not forget the true excellence of the program. And let us appreciate the importance of alignment and the significant difficulty of achieving interoperability between the electronic health records of two large providers of care.

Thank you for the opportunity to testify. I welcome the opportunity to respond to your questions.

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