

**HEARING ON SHARING OF VA/DOD ELECTRONIC
HEALTH INFORMATION**

HEARING
BEFORE THE
COMMITTEE ON VETERANS' AFFAIRS
UNITED STATES SENATE
ONE HUNDRED TENTH CONGRESS
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SEPTEMBER 24, 2008

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HEARING ON SHARING OF VA/DOD ELECTRONIC HEALTH INFORMATION

WEDNESDAY, SEPTEMBER 24, 2008

U.S. SENATE,
COMMITTEE ON VETERANS' AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 9:32 a.m., in room 418, Russell Senate Office Building, Hon. Daniel K. Akaka, Chairman of the Committee, presiding.

Present: Senators Akaka, Murray, Burr, and Wicker.

OPENING STATEMENT OF HON. DANIEL K. AKAKA, CHAIRMAN, U.S. SENATOR FROM HAWAII

Chairman AKAKA. The hearing of the U.S. Senate Committee on Veterans' Affairs is now in order.

Good morning, aloha, and welcome to all of you to today's hearing on the state of health information sharing between the Departments of Veterans Affairs and Defense. This is historic. I will tell you that Veterans Affairs and also the Department of Defense have been talking to each other, have been working together, and here is another area that we are getting to where we are working together. And so, this is why I said historic.

Even in the waning days of this Congressional session, we must continue to strive to improve care for servicemembers and veterans. An essential ingredient to reaching that goal is the sharing of personal health care information between the two Departments.

The merits of Electronic Health Records are well documented. While VA is considered to be a leader in using Electronic Health Records, much work remains before the two Departments can achieve the ultimate goal—the goal of sharing medical information in real time. Until this goal is reached, military and VA medical practitioners simply will not have access to the most accurate personal medical information on their patients.

Technology is not necessarily the problem. The technology exists, as we will see today. Indeed, the Electronic Health Record systems of the two Departments are each remarkable in their own right. The biggest challenge is the development of common standards so the two systems can talk to each other easily and in real time.

DOD and VA have been working toward achieving interoperable systems for over a decade at a rate that can charitably be described as glacially slow. Only recently has there been significant progress. It appears that, for the first time, there is the needed commitment for full data sharing of electronic medical information; and the results of that commitment are visible.

I encourage the Departments to continue to work together in order to extend the progress we have already observed. When VA and DOD finally have the ability to fully exchange medical information in real time, the best interests of servicemembers and veterans will be served.

I look forward to hearing from our witnesses today and learning their views on the most effective way forward on this important issue and what this Committee can do to reach our shared goal.

We are delighted to have joining us this morning on our first panel Valerie Melvin, who is the Director of Human Capital and Management Information Systems Issues at the Government Accountability Office. For me, human capital really rings a big bell because we really need to help develop that, and I am glad we have somebody in that kind of position here. GAO recently released a Congressionally-mandated report on data sharing between VA and DOD.

I want to say aloha, Ms. Melvin. I am pleased that GAO is actively tracking the Departments' progress in this area. We look forward to hearing from you this morning. So, will you please begin with your statement now.

STATEMENT OF VALERIE C. MELVIN, DIRECTOR, HUMAN CAPITAL AND MANAGEMENT INFORMATION SYSTEMS, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Ms. MELVIN. Thank you, Mr. Chairman. I am pleased to participate in today's hearing to discuss the sharing of electronic medical information between DOD and VA. As you know, the two Departments have been pursuing initiatives to share data between their Health Information Systems for the last decade. However, while important progress has been made, questions have remained concerning when and to what extent the intended electronic sharing capabilities will be fully achieved.

To expedite the Departments' efforts to exchange electronic medical information, as you mentioned, the National Defense Authorization Act for fiscal year 2008 directed DOD and VA to jointly develop and implement by September 30, 2009, electronic health records systems or capabilities that are compliant with applicable interoperability standards and it established an interagency program office to be a single point of accountability for the Departments' efforts.

Further, the Act directed GAO to semiannually report on the Departments' efforts. Thus, on July 28, as you have stated, we issued our first report highlighting the Departments' progress in sharing electronic health information, developing electronic records that comply with national standards, and establishing the Interagency Program Office. As you have requested, my testimony today summarizes our report findings in these three areas.

In brief, DOD and VA are sharing selected electronic health information at different levels of interoperability. Pharmacy and drug allergy data on almost 19,000 shared patients are exchanged at the highest level of interoperability, that is in computable form or a standardized format that a computer application can act on to, for example, alert clinicians of a drug allergy.

In other cases, data can be viewed at a lower level of interoperability, but one that also provides clinicians valuable information, which has been achieved through various short-term initiatives involving the Departments' existing systems. Among these, the Laboratory Data Sharing Interface Project has produced an application that allows the Departments to share medical laboratory resources. Another, the Bidirectional Health Information Exchange, has enabled a two-way almost instantaneous view of selected categories of health data on shared patients.

The Departments have agreed on numerous standards that enable them to share data and are participating in initiatives led by HHS's Office of the National Coordinator for Health IT that are aimed at promoting broader use of Electronic Health Records, which is important to aligning their Electronic Health Records with emerging Federal standards.

Nonetheless, questions remain concerning the extent to which the Departments will achieve full interoperability by next year, as they have not yet articulated an interoperability goal. This is significant, as not all health information is currently shared electronically and information is still being captured in paper records at many DOD facilities. Further, not all shared patients who could benefit from these electronic exchanges have been identified and activated.

The DOD/VA Information Interoperability Plan that the Departments recently completed is supposed to address these and other issues, including the establishment of schedules and benchmarks for developing an interoperable health record capability. However, while an important accomplishment, on preliminary review, the plan's high-level content provides only a limited basis for understanding and assessing the Departments' progress toward full interoperability by the September 2009 date.

Further, once fully established, a new Interagency Program Office is to play a crucial role in accelerating the Departments' efforts. However, this office is not expected to be fully operational until the end of this year and some milestones in the office's plan for achieving interoperability have yet to be determined.

Thus, Mr. Chairman, through all of their efforts, DOD and VA have made important progress in sharing electronic health information. Moreover, they are sharing more data than ever before. Nonetheless, work remains to plan and implement new capabilities that could further the Departments' efforts and a clearer understanding of the extent to which these capabilities are expected to be in place by September 2009 is essential. The Departments could benefit from more detailed planning and benchmarks for measuring progress and success toward achieving their intended electronic sharing capabilities.

This concludes my prepared statement. I would be pleased to respond to any questions that you have.

[The prepared statement of Ms. Melvin follows:]

United States Government Accountability Office

GAO

Testimony
Before the Senate Committee on
Veterans' Affairs

For Release on Delivery
Expected at 9:30 a.m. EDT
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**INFORMATION
TECHNOLOGY**

**DOD and VA Have
Increased Their Sharing of
Health Information, but
Further Actions Are
Needed**

Statement of Valerie C. Melvin, Director
Human Capital and Management Information Systems
Issues



GAO-08-1158T

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September 24, 2008

INFORMATION TECHNOLOGY

DOD and VA Have Increased Their Sharing of Health Information, but Further Actions Are Needed


GAO
 Accountability Integrity Reliability
Highlights

Highlights of GAO-08-1158T, a testimony before the Senate Committee on Veterans' Affairs

Why GAO Did This Study

The National Defense Authorization Act for Fiscal Year 2008 required the Department of Defense (DOD) and the Department of Veterans Affairs (VA) to accelerate the exchange of health information between the departments and to develop systems or capabilities that allow for full interoperability (generally, the ability of systems to use data that are exchanged) and that are compliant with federal standards. The act also established an interagency program office to function as a single point of accountability for the effort and whose role is to implement such systems or capabilities by September 30, 2009.

Further, the act required that GAO semi-annually report on the progress made in achieving these goals; its first report was issued in July 2008. In that report, GAO described the departments' progress in sharing electronic health information, developing electronic health records that comply with federal standards, and establishing the interagency program office. In this testimony, GAO discusses its July 2008 report and updated information obtained from the departments.

What GAO Recommends

In the report covered by this testimony, GAO made recommendations that the departments give priority to fully establishing the interagency program office and finalizing the implementation plan. DOD and VA concurred with GAO's recommendations.

To view the full product, including the scope and methodology, click on GAO-08-1158T. For more information, contact Valerie Melvin at (202) 512-6304 or melvinv@gao.gov.

What GAO Found

DOD and VA are sharing some, but not all, electronic health information. This includes exchanging some information in computable form, which is the highest level of interoperability. In other cases, data can be viewed only—a lower level of interoperability that still provides clinicians with important information. The departments have undertaken a number of initiatives, resulting in varied sharing capabilities (see table below). However, information is still being captured in paper records at many DOD medical facilities, and not all electronic health information is being shared.

Sharing Capabilities of DOD and VA Initiatives

Initiative	Sharing Capabilities
DOD's Clinical Data Repository/VA's Health Data Repository Interface*	Bidirectional (or two-way) real-time exchange of computable pharmacy and drug allergy data
Bidirectional Health Information Exchange	Bidirectional real-time sharing of viewable health data*
Federal Health Information Exchange	One-way transfer of viewable health data* from DOD to VA
Laboratory Data Sharing Interface	Bidirectional sharing of viewable lab tests and results

Source: DOD and VA.

*Known as CHDR, pronounced "cheddar," this interface combines the names of the two repositories.

*See attachment 1 for a list of the data elements that are made available and are planned for these initiatives.

Further enhancing sharing and interoperability depends on adherence to common standards. The two departments have agreed on numerous common standards and are working with federal groups and each other to ensure adherence to such standards and to align their initiatives with emerging standards. These efforts, led by the Office of the National Coordinator for Health Information Technology (within the Department of Health and Human Services), include identifying relevant existing standards, identifying and addressing overlaps and gaps in the standards, and developing interoperability specifications and certification criteria based on these standards.

The departments are also in the process of setting up a new interagency program office that will play a crucial role in accelerating their efforts to achieve electronic health records and capabilities that allow for full interoperability. However, the program office is not expected to be fully operational until the end of the year, which will allow the departments only 9 months to meet the deadline for full interoperability between the departments by September 2009. While DOD and VA have produced a plan for achieving interoperability within this time period, many milestones have yet to be determined. In view of the short timeframe and without a fully established program office and a complete plan with fully established milestones, the departments may be challenged in achieving interoperable electronic health records and capabilities that most effectively serve military service members and veterans.

Mr. Chairman and Members of the Committee:

I am pleased to participate in today's hearing on the exchange of electronic medical information between the Department of Defense (DOD) and the Department of Veterans Affairs (VA). As you know, the two departments have been pursuing initiatives to share data between their health information systems for the last decade. However, while progress has been made, questions have remained concerning when and to what extent the intended electronic sharing capabilities will be fully achieved.

To expedite the departments' efforts to exchange electronic medical information, the National Defense Authorization Act for Fiscal Year 2008¹ included provisions directing DOD and VA to jointly develop and implement, by September 30, 2009, electronic health record systems or capabilities. The act required that these systems or capabilities be compliant with applicable interoperability² standards, and it established an interagency program office to be a single point of accountability for the departments' efforts.

Further, the act directed GAO to assess DOD's and VA's progress in implementing the electronic health record systems and to report semi-annually its results to the appropriate congressional committees. Accordingly, on July 28, 2008, we issued the first of our reports in response to the act, in which we highlighted the departments' progress in (1) sharing electronic health information, (2) developing electronic records that comply with national standards, and (3) establishing the interagency program office.³ At your request, my testimony today summarizes our findings in these three areas, as presented in that report.

¹The National Defense Authorization Act for Fiscal Year 2008, Pub. L. No. 110-181, Section 1635, required "Fully Interoperable Electronic Personal Health Information for the Department of Defense and the Department of Veterans Affairs."

²Interoperability is the ability of two or more systems or components to exchange information and to use the information that has been exchanged. Further discussion of levels of interoperability is provided later in this testimony.

³GAO, *Electronic Health Records: DOD and VA Have Increased Their Sharing of Health Information, but More Work Remains*, GAO-08-954 (Washington, D.C.: July 28, 2008).

In developing this testimony, we relied largely on our previous work supporting the July 2008 report. Where available, we also obtained and analyzed updated information about the departments' exchange activities. We conducted our work in support of this testimony during August 2008 and September 2008, in Washington, D.C. All work on which this testimony is based was performed in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

DOD and VA are sharing some, but not all, electronic health information at different levels of interoperability. Specifically, pharmacy and drug allergy data on almost 19,000 shared patients are exchanged at the highest level of interoperability—that is, in computable form; at this level, the data are in a standardized format that a computer application can act on. In other cases, data can be viewed only—a lower level of interoperability that still provides clinicians with important information. However not all health information is shared electronically; information is still being captured in paper records at many DOD medical facilities. According to the departments, the September 2008 DOD/VA Information Interoperability Plan is intended to address these and other issues and define tasks required to guide the development and implementation of an interoperable electronic health record capability. If properly executed, the plan could help the departments fully achieve the goal of seamless sharing of health information.

Further enhancing interoperability depends on adherence to common standards. The two departments have agreed upon numerous standards that allow them to share health data and are participating in initiatives led by the Office of the National Coordinator for Health Information Technology (within the Department of Health and Human Services) that are aimed at

promoting the adoption of federal standards and broader use of electronic health records. The involvement of the departments in the federal initiatives is an important mechanism for aligning their electronic health records with emerging federal standards.

Once fully established, a new interagency program office is expected to play a crucial role in accelerating the departments' efforts to develop and implement electronic health records and capabilities that allow for full interoperability. However, the program office is not expected to be fully operational until the end of the year, after which only 9 months will remain to meet the deadline for full interoperability between the departments by September 2009. The program office's plan for achieving interoperability within this time period includes milestones that are yet to be determined. In view of the short timeframe, without a fully established program office and a complete plan with established milestones, the departments may be challenged in meeting the required date for achieving interoperable electronic health records and capabilities.

To better ensure the successful attainment of interoperable electronic health record systems or capabilities, we recommended that the departments give priority to fully establishing the interagency program office and finalizing their implementation plan. The departments concurred with our recommendations.

Background

The use of information technology (IT) to electronically collect, store, retrieve, and transfer clinical, administrative, and financial health information has great potential to help improve the quality and efficiency of health care and is critical to improving the performance of the U.S. health care system. Historically, patient health information has been scattered across paper records kept by many different caregivers in many different locations, making it difficult for a clinician to access all of a patient's health information at the time of care. Lacking access to these critical data, a clinician may be challenged to make the most informed decisions on

treatment options, potentially putting the patient's health at greater risk. The use of electronic health records can help provide this access and improve clinical decisions.⁴

Electronic health records are particularly crucial for optimizing the health care provided to military personnel and veterans. While in military status and later as veterans, many DOD and VA patients tend to be highly mobile and may have health records residing at multiple medical facilities within and outside the United States. Making such records electronic can help ensure that complete health care information is available for most military service members and veterans at the time and place of care, no matter where it originates.

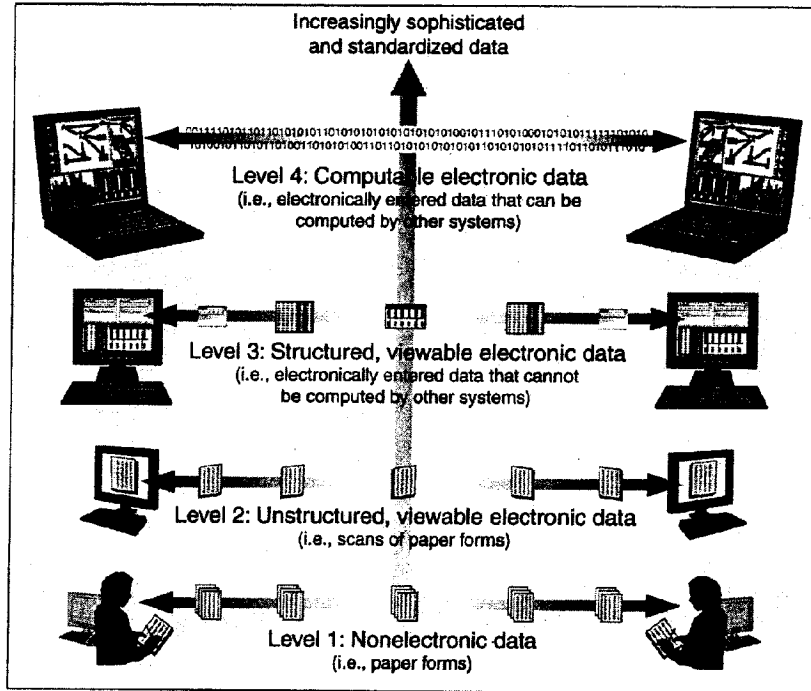
Key to making health care information electronically available is interoperability—that is, the ability to share data among health care providers. Interoperability enables different information systems or components to exchange information and to use the information that has been exchanged. This capability is important because it allows patients' electronic health information to move with them from provider to provider, regardless of where the information originated. If electronic health records conform to interoperability standards, they can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization, thus providing patients and their caregivers the necessary information required for optimal care. (Paper-based health records—if available—also provide necessary information, but unlike electronic health records, do not provide decision support capabilities, such as automatic alerts about a particular patient's health, or other advantages of automation.)

⁴An electronic health record is a longitudinal collection of information about the health of an individual or the care provided, such as patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports.

Interoperability can be achieved at different levels.⁵ At the highest level, electronic data are computable (that is, in a format that a computer can understand and act on to, for example, provide alerts to clinicians on drug allergies). At a lower level, electronic data are structured and viewable, but not computable. The value of data at this level is that they are structured so that data of interest to users are easier to find. At still a lower level, electronic data are unstructured and viewable, but not computable. With unstructured electronic data, a user would have to find needed or relevant information by searching uncategorized data. Beyond these, paper records can also be considered interoperable (at the lowest level) because they allow data to be shared, read, and interpreted by human beings. However, my discussion today focuses only on the three levels of electronic interoperability. Figure 1 shows the distinction between the various levels of interoperability and examples of the types of data that can be shared at each level.

⁵These levels were identified by the Center for Information Technology Leadership, which was chartered in 2002 as a research organization established to help guide the health care community in making more informed strategic IT investment decisions. According to DOD and VA officials, the different levels of interoperability have been accepted for use by the Office of the National Coordinator for Health Information Technology.

Figure 1: Levels of Data Interoperability



Source: GAO analysis based on data from the Center for Information Technology Leadership.

It is important to note that not all data require the same level of interoperability. For example, in their initial efforts to implement computable data, DOD and VA focused on outpatient pharmacy and drug allergy data because clinicians gave priority to the need for automated alerts to help medical personnel avoid administering inappropriate drugs to patients. On the other hand, for such narrative data as clinical notes, unstructured, viewable data may be sufficient. Achieving even a minimal level of electronic interoperability is valuable for potentially making all relevant information available to clinicians.

Efforts to Adopt and Implement Federal Interoperability Standards Are Ongoing

Any level of interoperability depends on the use of agreed-upon standards to ensure that information can be shared and used. In the health IT field, standards govern areas ranging from technical issues, such as file types and interchange systems, to content issues, such as medical terminology. Developing, coordinating, and agreeing on standards are only part of the processes involved in achieving interoperability for electronic health records systems or capabilities. In addition, specifications are needed for implementing the standards, as well as criteria and a process for verifying compliance with the standards.

The President's executive order of April 2004 that called for widespread adoption of interoperable electronic health records by 2014,⁶ established the Office of the National Coordinator for Health Information Technology within the Department of Health and Human Services (HHS) to, among other things, develop, maintain, and direct the implementation of a strategic plan to guide the nationwide implementation of interoperable health IT in both the public and private health care sectors. Under the direction of HHS (through the Office of the National Coordinator), three primary organizations were designated to play major roles in expanding the implementation of health IT:

- The American Health Information Community was created by the Secretary of Health and Human Services as a federal advisory body to make recommendations on how to accelerate the development and adoption of health IT, including advancing interoperability, identifying health IT standards, advancing nationwide health information exchange, and protecting personal health information. Formed in September 2005, the community is made up of representatives from both the public and private sectors, including high-level DOD and VA officials. The community determines specific

⁶Executive Order 13335, *Incentives for the Use of Health Information Technology and Establishing the Position of the National Health Information Technology Coordinator* (Washington, D.C.: Apr. 27, 2004).

health care areas of high priority and develops “use cases”⁷ for these areas, which provide the context in which standards would be applicable. The use cases convey how health care professionals would use such records and what standards would apply.

- The Healthcare Information Technology Standards Panel, sponsored by the American National Standards Institute⁸ and funded by the Office of the National Coordinator, was established in October 2005 as a public-private partnership to identify competing standards for the use cases being developed by the American Health Information Community and to “harmonize”⁹ the standards. The panel also develops the interoperability specifications that are needed for implementing the standards. Interoperability specifications were developed for each of the seven use cases developed by the American Health Information Community in 2006 and 2007.¹⁰ The community is also developing six use cases for 2008 for which interoperability specifications have not yet been released.¹¹ The Healthcare Information Technology Standards Panel is made up of representatives from both the public and private sectors, including DOD and VA officials who serve as members and are actively working on several committees and groups within the panel. This

⁷Use cases are descriptions of events that detail what a system (or systems) needs to do to achieve a specific mission or goal; they convey how individuals and organizations (actors) interact with the systems. For health IT, use cases strive to provide enough detail and context for follow-up activities to occur, such as standards harmonization, architecture specification, certification consideration, and detailed policy discussions to advance the national health IT agenda.

⁸The American National Standards Institute is a private, nonprofit organization whose mission is to promote and facilitate voluntary consensus standards and ensure their integrity.

⁹Harmonization is the process of identifying overlaps and gaps in relevant standards and developing recommendations to address these overlaps and gaps.

¹⁰The seven use cases are Emergency Responder, Consumer Empowerment, Medication Management, Quality, Registration and Medication History, Laboratory Results Reporting, and Visit, Utilization, and Lab Result Data.

¹¹The six use cases are Remote Monitoring, Patient-Provider Secure Messaging, Personalized Healthcare, Consultation and Transfers of Care, Public Health Case Reporting, and Immunizations & Response Management.

panel is the successor to the Consolidated Health Informatics¹² initiative, which was dissolved and absorbed into the panel on September 30, 2006.

- The Certification Commission for Healthcare Information Technology is an independent, nonprofit organization that certifies health IT products. HHS entered into a contract with the commission in October 2005 to develop and evaluate the certification criteria and inspection process for electronic health records. According to HHS, certification is to be the process by which the IT systems of federal health contractors are established to meet federal interoperability standards. Certification helps assure purchasers and other users of health IT systems that the systems will provide needed capabilities (including ensuring security and confidentiality) and will work with other systems without reprogramming. Certification also encourages adoption of health IT by assuring providers that their systems can participate in nationwide health information exchange in the future. In 2006, the commission certified the first 37 ambulatory—or clinician office-based—electronic health record products as meeting baseline criteria for functionality, security, and interoperability. In 2007, the commission expanded certification to inpatient—or hospital—electronic health record products, which could significantly increase patients' and providers' access to the health information generated during a hospitalization. To date, the commission has certified over 100 electronic health record products.

DOD and VA Have Been Pursuing Efforts to Exchange Health Information for a Decade

DOD and VA have been working to electronically exchange patient health data since 1998. As we have reported previously,¹³ their

¹²In December 2001, the Consolidated Health Informatics was initiated to enable federal agencies to build interoperable health data systems. This project was a collaborative agreement among federal agencies, including DOD and VA, to adopt a common set of health information standards for the electronic exchange of clinical health information.

¹³GAO-08-954.

efforts have included both short-term initiatives to share information in existing (legacy) systems, as well as a long-term initiative to develop modernized health information systems—replacing their legacy systems—that would be able to share data and, ultimately, use interoperable electronic health records.

In their short-term initiatives to share information from existing systems, the departments began from different positions. VA has one integrated medical information system—the Veterans Health Information Systems and Technology Architecture (Vista)—which uses all electronic records and was developed in-house by VA clinicians and IT personnel. All VA medical facilities have access to all Vista information.

In contrast, DOD uses multiple legacy medical information systems, all of which are commercial software products that are customized for specific uses. For example, the Composite Health Care System (CHCS) which was formerly DOD's primary health information system is still in use to capture pharmacy, radiology, and laboratory information.¹⁴ In addition, the Clinical Information System (CIS), a commercial health information system customized for DOD, is used by some facilities for inpatients.

The departments' short-term initiatives to share information in their existing systems have included several projects:

- The Federal Health Information Exchange (FHIE), completed in 2004, enables DOD to electronically transfer service members' electronic health information to VA when the members leave active duty.
- The Laboratory Data Sharing Interface (LDSI), a project established in 2004, allows DOD and VA facilities to share laboratory resources. This interface, now deployed at nine locations, allows the

¹⁴According to DOD, CHCS applications are now accessed through its modernized health information system, Armed Forces Health Longitudinal Technology Application (AHLTA). The department no longer considers AHLTA as an acronym but as the official name of the system.

departments to communicate orders for lab tests and their results electronically.

- The Bidirectional Health Information Exchange (BHIE), also established in 2004, was aimed at allowing clinicians at both departments viewable access to records on shared patients (that is, those who receive care from both departments—for example, veterans may receive outpatient care from VA clinicians and be hospitalized at a military treatment facility).¹⁵ The interface also allows DOD sites to see previously inaccessible data at other DOD sites.

As part of the long-term initiative, each of the departments aims to develop a modernized system in the context of a common health information architecture that would allow a two-way exchange of health information. The common architecture is to include standardized, computable data; communications; security; and high-performance health information systems: DOD's Armed Forces Health Longitudinal Technology Application (AHLTA)¹⁶ and VA's HealthVet. The departments' modernized systems are to store information (in standardized, computable form) in separate data repositories: DOD's Clinical Data Repository (CDR) and VA's Health Data Repository (HDR). For the two-way exchange of health information, the two repositories are to be linked through an interface named CHDR,¹⁷ which the departments began developing in March 2004 (with implementation beginning in September 2006).

Beyond these initiatives, in January 2007, the departments announced an addition to their information-sharing strategy: their intention to jointly determine an approach for inpatient health

¹⁵To create BHIE, the departments drew on the architecture and framework of the information transfer system established by the FHIE project. Unlike FHIE, which provides a one-way transfer of information to VA when a service member separates from the military, the two-way interface allows clinicians in both departments to view, in real time, limited health data (in text form) from the departments' existing health information systems.

¹⁶AHLTA was formerly known as CHCS II.

¹⁷The name CHDR, pronounced "cheddar," combines the names of the two repositories.

records. On July 31, 2007, they awarded a contract for a feasibility study and exploration of alternatives.¹⁸ According to the departments, one of the options would be adopting a joint solution, which would be expected to facilitate the seamless transition of active-duty service members to veteran status, and make inpatient health care data on shared patients more readily accessible to both DOD and VA. In addition, the departments believe that a joint development effort could enable them to realize cost savings. However, no decision on a joint inpatient health records system has yet been made. The departments' officials stated that they received recommendations from the contractor on the possible approaches for the joint inpatient electronic health record in August, but added that they would not be prepared to release the findings from the study until senior leadership has fully reviewed and considered the recommendations—a step for which no date was provided.

We have previously pointed out that the many tasks and challenges associated with the departments' long-term goal of seamless sharing of health information made it essential that the departments develop a comprehensive project plan to guide these efforts to completion. Therefore, in 2004, we recommended that the departments develop such a plan for the CHDR interface and that it include a work breakdown structure and schedule for all development, testing, and implementation tasks.¹⁹ Further, as the departments undertook work on their short-term initiatives, we raised concerns regarding how all of these initiatives were to be incorporated into an overall strategy toward achieving the departments' goal of a comprehensive, seamless exchange of health information.

In response to our concerns, the departments began developing a comprehensive plan, which they called the DOD/VA Information Interoperability Plan. To provide input to the plan and determine priorities, in December 2007, the departments established the Joint

¹⁸The contract for this study is still ongoing; according to DOD and VA officials, a contract option period was exercised and began in July 2008 and will conclude in December 2008.

¹⁹GAO, *Computer-Based Patient Records: DOD and VA Efforts to Exchange Health Data Could Benefit from Improved Planning and Project Management*, GAO-04-687 (Washington, D.C.: June 7, 2004).

Clinical Information Board, made up of senior clinical leaders from both departments. The board is responsible for establishing clinical priorities for electronic data sharing between the departments, determining essential health information to be shared, and further identifying and prioritizing data that should be viewable and data that should be computable.

The departments produced the DOD/VA Information Interoperability Plan (Version 1.0) this month. While the scope of the plan includes health information interoperability, it also addresses interoperability of personnel and benefits information. According to the plan, it describes the scope and milestones necessary to achieve and measure progress toward interoperability goals. To this end, the plan identifies over 20 initiatives, including, for example, enhancing health information exchange between clinical information systems. The plan also incorporates information intended to address requirements in the National Defense Authorization Act for Fiscal Year 2008 that require schedules for establishing the interagency program office; establishing requirements for electronic health record systems; and acquiring, testing, and implementing electronic health record systems.

DOD and VA Are Sharing Some, but Not All, Health Information at Different Levels of Interoperability

DOD and VA are electronically sharing health information as a result of their long- and short-term initiatives to achieve interoperability; some of this information is exchanged in computable form, while other information is viewable only. However, not all electronic health information is yet shared. Further, although VA's health information is all captured electronically, not all health data collected by DOD are electronic—many DOD medical facilities use paper-based health records.

Long-Term Initiative Provides Computable Data

Data in computable form are exchanged as a result of the departments' long-term initiative to develop the CHDR interface,

which links the modernized health data repositories for the new systems that each department is developing. Implementing the interface required the departments to agree on standards for various types of data, put the data into the agreed standard formats, and populate the repositories with the standardized data.²⁰ Currently, the types of computable health data being exchanged are limited to outpatient pharmacy and drug allergy data. According to the departments, the next type of data to be standardized, included in the repositories, and exchanged in computable form is laboratory data (i.e., chemistry and hematology laboratory results).²¹ However, DOD and VA officials told us that this data exchange is expected to be achieved by October 31, 2009.

Currently, these computable data are not shared for all patients—rather only for those who are seen at both DOD and VA medical facilities, identified as shared patients, and then “activated.”²² Once a patient is activated, all DOD and VA sites can access information on that patient and receive alerts on allergies and drug interactions for that patient. According to DOD and VA officials, outpatient pharmacy and drug allergy data were being exchanged on almost 19,000 shared patients as of July 31, 2008; however, officials stated that they are unable to track the number of shared patients currently receiving care from both departments, so the number of patients for whom data could potentially be shared is unknown.

²⁰DOD has populated CDR with information for outpatient encounters, drug allergies, and order entries and results for outpatient pharmacy and lab orders. VA has populated HDR with patient demographics, vital signs records, allergy data, and outpatient pharmacy data; in July 2007, the department added chemistry and hematology, and in September 2007, added microbiology.

²¹Standardizing the data involves different tasks for each department. That is, although VA’s health records are already electronic, it must still convert them into the standardized format appropriate for its repository. DOD must convert and standardize current records from its multiple systems, but it must also address health records that are not automated.

²²That is, they are matched on certain identifiers—first name, last name, date of birth, Social Security number—in both agencies’ health information systems and established as “active” shared patients.

Short-Term Initiatives Provide Viewable Data

Data in viewable form are shared as a result of the various short-term initiatives previously mentioned. Through BHIE, clinicians can query selected health information on patients from all DOD and VA sites and view current data onscreen almost immediately. Because the BHIE interface provides access to up-to-date information, clinicians at both departments have expressed strong interest in expanding its use, and DOD and VA have taken steps in this regard. For example, the departments completed a BHIE interface with DOD's Clinical Data Repository in July 2007, and they began sharing viewable patient vital signs information through BHIE in June 2008. Extending BHIE connectivity could provide both departments with the ability to view additional data in DOD's legacy systems, until such time as the departments' modernized systems are fully developed and implemented. According to a DOD/VA annual report²³ and program officials, the departments now consider BHIE an interim step in their overall strategy to create a two-way exchange of electronic health records.

DOD has been using another short-term initiative, FHIE, to transfer information to VA since 2002, allowing VA clinicians to view service members' electronic health information when the members leave active duty. Among the data elements transferred are laboratory results, radiology results, outpatient pharmacy data, allergy information, consultation reports, and demographic data. Further, since July 2005, FHIE has been used to transfer pre- and post-deployment health assessment and reassessment data. Transfers are done in batches once a month, or weekly for veterans who have been referred to VA treatment facilities.

Another initiative that provides viewable data, LDSI, is deployed when local agencies have a business case for its use and sign an agreement to share laboratory resources. LDSI currently supports a variety of chemistry, hematology, toxicology, and serology laboratory results. If a test is not performed at a DOD or VA doctor's home facility, the doctor can order the test, the order is transmitted

²³December 2004 DOD and VA Joint Strategic Plan.

electronically to the appropriate lab (the other department's facility or in some cases a local commercial lab), and the results are returned electronically. Among the benefits of LDSI, according to DOD and VA, are increased speed in receiving laboratory results and decreased errors from manual entry of orders.

Attachment 1 summarizes the types of health data currently shared via the DOD and VA initiatives, as well as additional types of data that are currently planned for sharing via these initiatives.

While DOD and VA are sharing or plan to share a wide range of health information, questions nonetheless exist regarding when and to what extent electronic sharing capabilities will be fully achieved. Beyond the initiatives and types of data already discussed, the electronic sharing of health information between the departments has not been fully addressed. Although VA's health information is all captured electronically, many DOD medical facilities continue to rely on paper records. Also, clinical encounters for those enrolled in the military's TRICARE health care program²⁴ are not captured in DOD's electronic health system unless care is received at a military treatment facility.²⁵ Addressing these conditions will be important to determining the outcome of the departments' joint efforts.

DOD and VA Have Adopted Standards to Allow Sharing and Are Engaged in Efforts to Establish Standards

As previously discussed, interoperability standards are an essential element in the exchange of electronic health information. In this regard, DOD and VA have agreed upon numerous common standards that allow them to share health data, which include standards that are part of current and emerging federal

²⁴Those eligible are active-duty service members, National Guard and Reserve members, retirees, their families, survivors and certain former spouses.

²⁵According to DOD officials, about 7.29 million individuals are enrolled in TRICARE. These people can seek care in both the direct care system (military medical facilities) and the purchased care system (nonmilitary medical facilities).

interoperability specifications. The foundation built by this collaborative process has allowed the two departments to begin sharing computable health data (the highest level of interoperability).

The standards agreed to by the two departments are listed in a jointly published common set of interoperability standards called the Target DOD/VA Health Standards Profile.²⁶ The current version of the profile, dated September 2007, includes federal standards (such as data standards established by the Food and Drug Administration and security standards established by the National Institute of Standards and Technology); industry standards (such as wireless communications standards established by the Institute of Electrical and Electronics Engineers and Web file sharing standards established by the American National Standards Institute); international standards (such as the Systematized Nomenclature of Medicine Clinical Terms, or SNOMED CT, and security standards established by the International Organization for Standardization). According to the departments, they anticipate continued updates and revisions to the profile as additional federal standards emerge.

For the two kinds of data now being exchanged in computable form through CHDR (pharmacy and drug allergy data), DOD and VA adopted the National Library of Medicine data standards for medications and drug allergies,²⁷ as well as the SNOMED CT codes for allergy reactions.²⁸ This standardization was a prerequisite for exchanging computable medical information—an accomplishment that, according to the Department of Health and Human Services' National Coordinator for Health IT, has not been widely achieved.

²⁶First developed in 2004, this profile resulted from an effort in which the two departments compared their individual standards profiles for compatibility and began converging them. The Target Standards Profile is updated annually and is used for reviewing joint DOD/VA initiatives to ensure standards compliance.

²⁷These data standards are known as RxNorm and Unified Medical Language System (UMLS) for medications and drug allergies.

²⁸SNOMED CT, a comprehensive health and clinical terminology, was established by the International Health Terminology Standards Development Organisation, a not-for-profit association that develops and promotes use of SNOMED CT so as to support safe and effective health information exchange.

Further, DOD and VA are continuing their historical involvement in efforts to agree upon standards for the electronic exchange of clinical health information by participating in ongoing initiatives led by the Office of the National Coordinator that are aimed at promoting the adoption of federal standards and broader use of electronic health records. Health officials from both departments participate as members of the American Health Information Community and the Healthcare Information Technology Standards Panel. For example, high-level representatives of the 18-member Community include the Assistant Secretary of Defense for Health Affairs and the Director, Health Data and Informatics, Veterans Health Administration. DOD and VA are also members of the Healthcare Information Technology Standards Panel Board and are actively working on several committees and groups, including the Provider Perspective Technical Committee; Population Perspective Technical Committee; and Security, Privacy and Infrastructure Domain Technical Committee. The National Coordinator indicated that such participation is important and stated it would not be advisable for DOD and VA to move significantly ahead of the national standards initiative; if they did, the departments might have to change the way their systems share information by adjusting them to the national standards later, as the standards continue to evolve.

In addition, according to DOD officials, their department is taking steps to ensure that the electronic health records produced by its modernized health information system, AHLTA (which is a customized commercial software application), are compliant with standards by arranging for certification through the Certification Commission for Healthcare Information Technology. AHLTA version 3.3 has been installed at three DOD locations²⁶ for beta testing and has met specific functionality, interoperability, and security requirements. However, the officials stated that the commission cannot fully certify this version of AHLTA until it has verified that the system has been in operational use at a medical site.

²⁶These locations are the Naval Medical Center in Portsmouth, Va.; Eisenhower Army Medical Center in Fort Gordon, Ga.; and Goodfellow Air Force Base in San Angelo, Tex.

The departments' efforts to share data and to be involved in standardization activities are important mechanisms for ensuring that their electronic health records are both interoperable and aligned with emerging standards.

Further Actions Needed to Fully Establish the Interagency Program Office

To accelerate the departments' ongoing interoperability efforts, Congress included in the National Defense Authorization Act for Fiscal Year 2008 provisions establishing an interagency program office. Under the act, the Secretary of Defense and the Secretary of Veterans Affairs were required to jointly develop schedules and benchmarks for setting up the DOD/VA Interagency Program Office, and for other activities to achieve interoperable health information (that is, establishing system requirements, acquisition and testing, and implementation of interoperable electronic health records or capabilities). The schedules and benchmarks were due 30 days after passage of the act, or the end of February 2008.

The departments did not meet the February 2008 date; however, just this month they produced the DOD/VA Information Interoperability Plan, which incorporates fiscal year 2008 and 2009 schedules and milestones that DOD and VA previously referred to in a draft implementation plan. Further, in an effort to set up the program office, the departments appointed an Acting Director from DOD and an Acting Deputy Director from VA.³⁶ According to the Acting Director, the departments also have detailed staff and provided temporary space and equipment to a transition team. The official stated that, through the efforts of the transition team, the departments are currently developing a charter for the office, defining and approving an organizational structure, and preparing to begin recruiting permanent staff for the office, which is expected to number about 30. According to the plan, the departments expect to

³⁶Before these appointments, both the officials had been involved in the planning and implementation of the departments' current sharing capabilities.

appoint a permanent Director and Deputy Director and begin recruiting staff by October 2008. The Acting Director added that program staff are expected to be in place, and the office is expected to be fully operational by December 2008. To fund the office, the departments have reported requesting \$4.94 million for fiscal year 2008 and \$6.94 million for fiscal year 2009.

Within the plan, milestones and schedules have been included for achieving interoperable health information in two stages. The first stage—Interoperability I—is to be completed this month and is to make available those health data most commonly required by health care providers, as validated by the Joint Clinical Information Board,³¹ which sets the clinical priorities for what electronic health information should be shared. The first milestone for this stage, sharing vital signs information, was already achieved this past June as part of the BHIE initiative. According to department officials, the remaining milestones related to sharing questionnaires and forms, family history, social history, and other history are all due during this month.

The second stage—Interoperability II—is to be completed by September 2009, and is to address additional health information enhancements. Department officials stated that the information to be covered by these enhancements is being defined, and that validation of the requirements for the enhancements by the Joint Clinical Information Board was completed in July 2008.

Nevertheless, milestones for this stage have not been fully established. Specifically, of 52 activities identified for Interoperability II, 11 do not yet have defined milestones. For example, milestones have not been identified for completing requirements validation, acquisition, and testing for the scanning of service members' paper medical records into DOD's electronic health record system in order to share these records electronically with VA; a capability expected to be implemented by September 30, 2009. Department officials stated that decisions on these milestones

³¹These data were defined in response to the recommendation by the President's Commission on Care for America's Returning Wounded Warriors.

will depend on clinical priorities, technical considerations, and policy decisions. Further, according to the plan, it is intended to serve as a "living document" that will be updated and refined as more detailed information becomes known on planned fiscal year 2008 and fiscal year 2009 initiatives, and as health care information needs change. However, although the plan (as a planning tool) is a living document, it is nonetheless important to complete the planning and make the decisions needed to finalize the plan, particularly in view of the fast approaching September 2009 deadline.

In addition, according to department officials, the interagency program office will play a crucial role in coordinating the departments' efforts to accelerate their interoperability efforts. An important aspect of this coordination will be managing implementation of the DOD/VA Information Interoperability Plan, which the departments recently finalized. According to these officials, having a centralized office to take on this role will be a primary benefit. However, the effort to set up the program office is still in its early stages. As has been noted, the positions of Director and Deputy Director are not yet permanently filled, permanent staff have not yet been hired, and facilities have not yet been designated for housing the office. In addition, the departments have not completed an interagency program office charter because the departments' leadership broadened its scope to include sharing of personnel and benefits data instead of only health information. Until the program office is fully established, it will not be able to play this crucial role effectively. Thus, it remains vital that the Secretaries of Defense and Veterans Affairs fully establish the Interagency Program Office by expediting efforts to put in place permanent leadership, staff, and facilities.

To better ensure that the effort by DOD and VA to achieve fully interoperable electronic health record systems or capabilities is accelerated, our July report included recommendations that the departments give priority to fully establishing the interagency program office and finalizing the implementation plan. Prompt action by the departments to address these recommendations is critical to developing and implementing electronic health record systems or capabilities that allow for full interoperability of personal

health care information by September 30, 2009, as specified in the National Defense Authorization Act for Fiscal Year 2008. In their comments on our report, both departments concurred with these recommendations.

In summary, through numerous efforts, DOD and VA are sharing electronic health information at different levels of interoperability. Moreover, as a result of their efforts, the departments are sharing more data than ever before. However, significant work remains to plan and implement new capabilities that could further increase the sharing of electronic health information between the departments and to determine the desired level of data interoperability. Recognizing the importance of timely implementation of such capabilities, Congress established a requirement for an interagency program office as a single point of accountability, and a deadline of about one year from now to achieve full interoperability of personal health care information between the departments. In view of this short timeframe and as we have recommended, a fully functioning program office and a finalized plan with set milestones are critical steps toward achieving interoperable electronic health records and capabilities. Although completion of the DOD/VA Information Interoperability Plan is an important and positive accomplishment, without permanent program office leadership, staff, and facilities or fully established milestones, the departments may nonetheless remain challenged in achieving interoperable electronic health information to the extent and in the manner that most effectively serves military service members and veterans.

Mr. Chairman, this concludes my statement. I would be pleased to respond to any questions that you or other members of the committee may have.

Contacts and Acknowledgements

If you have any questions on matters discussed in this testimony, please contact Valerie C. Melvin, Director, Human Capital and Management Information Systems Issues, at (202) 512-6304 or

melvin@gao.gov. Other individuals who made key contributions to this testimony are Mark Bird, Assistant Director; Barbara Collier; Neil Doherty; Rebecca LaPaze; Lee McCracken; Barbara Oliver; Kelly Shaw; Eric Trout; and Robert Williams, Jr.

Attachment 1: Current and Planned Health Data Sharing

Table 1 summarizes the types of health data currently shared through the long- and short-term initiatives we have described, as well as types of data that are currently planned for addition.

Table 1: Data Elements Made Available and Planned by DODVA Initiatives

Initiative	Data elements		Interoperability level	Comments
	Available	Planned		
CHDR	Outpatient pharmacy Drug allergy	Laboratory data	Computable data	Data are exchanged between one department's data repository and the other's. As of July 31, 2008, computable pharmacy and medication allergy data were being exchanged on almost 19,000 shared patients. The departments are prioritizing their current needs to determine what, if any, additional data elements need to be exchanged at the computable data level.
BHIE, Bidirectional Health Information Exchange	Outpatient pharmacy data Drug and food allergy information Surgical pathology reports Microbiology results Cytology reports Chemistry and hematology reports Laboratory orders Radiology text reports Inpatient discharge summaries, emergency room notes, inpatient consultation, operative reports, and history and physical reports from CIS at 17 DOD sites (about 40% of inpatient beds) and all VA sites Provider notes Procedures Problem lists Vital signs	Scanned images and documents Family history Social history Other history questionnaires Radiology images Psychological health treatment and care records Rollout of CIS at additional DOD sites; expansion to include additional CIS documentation: initial evaluation notes, procedure notes, evaluation and management notes, preoperative and postoperative evaluation notes	Structured, viewable data Unstructured, viewable data from scanned documents	Data are not transferred but can be viewed. Limitations: Inpatient data are available only from a portion of DOD inpatient hospitals, not all military hospitals.

Initiative	Data elements		Interoperability level	Comments
	Available	Planned		
FHIE, Federal Health Information Exchange	Patient demographics	None	Structured, viewable data	Noncomputable text data are transferred to VA and stored in VA's FHIE database, making it accessible to all VA clinicians. One-way batch transfer of text data from DOD to VA occurs weekly if discharged patient has been referred to VA for treatment; otherwise monthly. Limitations: Discharge summaries from CHCS only* are transferred, not from other DOD systems.
	Laboratory results			
	Radiology reports			
	Outpatient pharmacy information			
	Admission discharge transfer data			
	Discharge summaries from CHCS			
	Consult reports			
	Allergies			
	Data from the DOD Standard Ambulatory Data Record			
	Pre- and postdeployment health assessments			
Postdeployment health reassessments				
LDSI, Laboratory Data Sharing Interface	Laboratory orders Laboratory results (chemistry, hematology, toxicology, and serology at all LDSI sites; anatomic pathology and microbiology at two localities)	Additional sites as business need arises	Structured, viewable data	Noncomputable text data are transferred and captured in the individual's health record.

Source: GAO analysis of DOD and VA data.

*According to department officials, the discharge summary module of CHCS is used at a limited number of sites.

Chairman AKAKA. Thank you very much, Ms. Melvin, for your statement.

I must tell you that I am thrilled at the progress that has been made and certainly encourage that here. Let me ask you, in your view and based upon the recent progress, are VA and DOD on the right track for fully sharing electronic medical information by September 2009, the date set by Congress?

Ms. MELVIN. They are on a good track, and I would say it is a positive track and a track in the right direction. The concern that I have at this time is that the definition of full interoperability remains unclear. In my statement, I made the point that VA and DOD had not yet defined an interoperability goal. For us at GAO, that is a very important step that needs to be taken from the standpoint of really knowing what it is that the Departments intend to have in place by September 2009.

I think they have made critically important progress as far as moving in the direction of interoperable sharing. They are sharing at various levels of interoperability, as I have stated. However, how much more they intend to share, across what facilities and across what percentage of their population of patients is still unclear. Once that is defined, I believe that there will be a better case for stating whether or not they will be able to reach the September 2009 date for full interoperability.

Chairman AKAKA. Well, you just mentioned interoperability as being unclear. Ms. Melvin, GAO identified one of the major challenges for DOD and VA as the ability to develop common standards for shared data. Please explain for the Committee why these common standards are so necessary.

Ms. MELVIN. I might start by saying that in developing standards, that is a difficult task, not just for VA and DOD, but even at the national level in which the Office of the National Coordinator for Health Information Technology is involved and which DOD and VA are, by the way, involved with. Identifying standards and agreeing to standards across multiple entities—in this case, two very large Federal agencies—is a complex task that does involve understanding the data that each agency views or deems as most important to meet their needs in caring for veterans and in caring for active duty patients.

But, common standards are essential from the standpoint of allowing VA and DOD systems essentially to talk to each other. At the very basic, these standards are needed so that if you are talking about a particular type of medication—for example, let us say an aspirin—in terms of sharing data and being able to have computerized data, for example, where we have talked about being able to provide alerts for allergies to certain medications. It is important that VA's system be able to read an aspirin as aspirin and see that data in DOD's system, and know that that is the same aspirin or the same type of medication.

At the same time, standards are important for establishing how data is communicated between those two computers. For example, from the standpoint that there are standards for messaging, there are standards for establishing specific data elements for how data transmits and what order specific types of information comes over to another computer or is read by another computer. It is impor-

tant, for example, that if VA's computer is looking at information on a patient and they are looking for a date of birth, that they, in fact, understand where—that that system understands where to read that date of birth from DOD's information—that reads it as a date of birth, not perhaps as a Social Security number.

So, having standards allowed those systems to have a common way to talk to each other and to make sure that they understand those systems can read the data from each other and produce results that are informative in making decisions.

Chairman AKAKA. I know you have made some progress in reaching the common standards of interoperability. Let me further ask, how far do the Departments have to go toward achieving these common standards for shared electronic health information? Are we a year away, or is it closer to 5 or 10 years before complete standardization can be achieved?

Ms. MELVIN. That is really a question that the agencies will have to answer. It really goes to the heart of the work that those agencies are undertaking and will have to continue to undertake to really establish what their needs are. It is rooted in their need to understand what the user's requirements are, rooted in understanding how best to serve their patient population. And so knowing what their needs are will have to drive what types of data they want—will have to drive the harmonization related to that data—and, ultimately, what they decide will be the standards that establish the specific data and how it is communicated.

Chairman AKAKA. What about the levels? Again, back to these common standards—

Ms. MELVIN. Yes.

Chairman AKAKA [continuing]. Are DOD and VA developing standards in a vacuum or are they in line with emerging Federal standards? We obviously don't want a situation whereby VA and DOD won't be able to interact with the private sector where so many patients receive their care. Are we in a vacuum or are we in line with emerging Federal standards?

Ms. MELVIN. Based on our work, I think they are in line with Federal standards. Certainly, VA and DOD were out in front of the Federal Government overall in preparing, or in terms of defining standards, because they have been at work for about a decade on trying to find ways to share their data. So, at the same time that they have identified standards that are unique to their capabilities, both agencies have been working and continue to work with the Office of the National Coordinator for Health IT in establishing and defining standards.

So, no, they are not working in a vacuum, and your point is perfectly correct: that they don't want to work in a vacuum because it is important that their standards are aligned with the national standards so that, as we move forward in the future, their systems are consistent with the other systems and those in the private sector as well as their own.

Chairman AKAKA. Thank you very much.

Let me invite my good friend, Senator Richard Burr, for his statement and questions.

**STATEMENT OF HON. RICHARD BURR, RANKING MEMBER,
U.S. SENATOR FROM NORTH CAROLINA**

Senator BURR. Thank you, Mr. Chairman. I would ask unanimous consent that my opening statement be included in the record. Chairman AKAKA. Without objection, it will be included in the record.

[The prepared statement of Senator Burr follows:]

PREPARED STATEMENT OF HON. RICHARD BURR, RANKING MEMBER,
U.S. SENATOR FROM NORTH CAROLINA

Thank you, Mr. Chairman, for holding this very important hearing. And welcome to our witnesses for being here today. I appreciate you all being here to discuss your progress in the sharing of VA/DOD electronic health information.

Mr. Chairman, we have been talking about electronic health information-sharing between VA and DOD since November 2001, when the DOD first began to send selected pieces of electronic health information to VA for separated servicemen and women. Unfortunately, it wasn't until late 2006 that we began to see the first real signs of movement toward robust electronic health information-sharing. I single out late 2006 because it was at that time when new programs came online to enable both Departments to view DOD inpatient discharge summaries, electronic post-deployment health reassessments, and computable outpatient pharmacy medication allergy data.

Mr. Chairman, there is still much work to be done, but I am pleased to hear about the steady progress in 2007, as DOD began sharing its patient tracking data with VA, and DOD began sending radiology images and scanned medical records to VA polytrauma centers.

A year ago, Assistant Secretary Robert Howard provided this Committee with a list of seven priorities that he was using as benchmarks to guide the realignment process. On a scale of one to ten, he rated where he believed the Departments were on each of those priorities. This year, I'd like to find out about what progress has been made on those benchmarks.

These benchmarks overlap with a new "DOD/VA Interoperability Plan" that charts the way forward. This plan identifies over twenty essential software systems, computer programs, networks, new management offices and other initiatives where work needs to be done to achieve our interoperability goals.

I believe we're on the right path, but DOD and VA must continue to take advantage of changes in the rapidly evolving world of information technology if we are to continue to provide state-of-the-art health care to our servicemen and women and to veterans. The two Departments must work together as they adopt new patient records technologies.

Regardless of what new health care information technologies are adopted, the days of DOD and VA working independently to develop and adopt new health care data collection systems should be a thing of the past. Close collaboration between the two Departments is essential to solving the interoperability challenges of today, and it is equally essential to ensuring that we don't run into similar problems in the future.

Mr. Chairman, I look forward to hearing today about the coordination that the two Departments have been engaged in to solve both the near-term and the mid-term interoperability challenges.

Senator BURR. I apologize to Ms. Melvin for missing her testimony, and thank GAO for a very complete review. This is not the first time GAO has been asked to look at this, is it?

Ms. MELVIN. No. We have actually been looking at this issue since about 2001 across the whole spectrum of VA and DOD sharing. The report that we issued on July 21, however, was the first one in response to the National Defense Authorization Act for 2008.

Senator BURR. You haven't been involved since 2001, though, have you?

Ms. MELVIN. I have not personally been involved through all of it, but through most of it, yes.

Senator BURR. Share with us what is different today. Highlight the progress. Highlight why we should be optimistic that they are headed in the right direction.

Ms. MELVIN. I think that what we have seen in the way of growth has certainly been in terms of their ability to find solutions that have enabled them to share increasing amounts of information. I stated earlier that the Departments are now sharing more data than ever before, and that has come through the ability for these two Departments to come to more common understandings, relative to collaborating on the issues that are important, understanding what their data needs are across the spectrum of the two agencies.

One caveat that I would introduce, however, is that even as they have done this, there is more work to be done from the standpoint of collaboration. We do see the need for them to continue. This is an important establishment in terms of being able to talk to each other; and we will be looking to see how these organizations continue to collaborate, to speak as one voice. I think that is going to be the most critical aspect.

Senator BURR. I am not sure that any of us believe that GAO would come in and say, "You know what? They are there. They have completed the whole process." I don't think—

Ms. MELVIN. No, we haven't said that.

Senator BURR [continuing]. VA or DOD would have suggested that. What I am after, though, is: one, you have assessed that they have made progress.

Ms. MELVIN. They have made progress.

Senator BURR. Two, is there a private sector blueprint that you compare where they are in the progress that they have made, that you compare it to the private sector blueprint, or have we really designed a pathway that we think we need to go, but there is no real understanding yet of—whether it is DOD and VA or whether it is the private sector and a hospital—how long it takes you to get there?

Ms. MELVIN. We have looked at, on some limited basis, the private sector. Obviously, with the work that the National Coordinator is doing, there isn't a blueprint that we have used. Most of our work has been driven by what VA and DOD have established as their goals for increasing their sharing capabilities. Over this time we have seen their progress grow, in large measure out of the need to establish interim short-term solutions to meet immediate needs for serving their patient populations.

But, at the same time, they are working in a way that they are actually able to provide some type of input to what the national level is trying to do, and I think it is important that VA and DOD continue to be in a place where they can actually use their experiences as an example to help form the blueprint, if you will, for how the national sharing of data is accomplished and how the private sector actually interacts in that.

Senator BURR. You stated a very important thing. They had a plan as to how they were going to proceed, right?

Ms. MELVIN. VA and DOD?

Senator BURR. Yes.

Ms. MELVIN. We have actually had concerns with VA and DOD's planning across the years. That is one other area that we have consistently stressed increased effort be placed on. I continue to feel that there is a stronger need for planning.

I mentioned earlier that in terms of the concept of full interoperability, one of our concerns is: how is full interoperability defined? I think when we get to September 2009, DOD and VA will certainly be in a position that they are sharing interoperable data and they are sharing it at different levels, because they are already doing that.

What we would like to see, though, is a clearer plan for how they plan to put discipline around all the various initiatives that are enabling them to, at this point, achieve that capability, and at the end of the day on September 30, 2009, to have established benchmarks to have a path that clearly shows the milestones, the timeframes, the activities, and how they all match up to some established end state that the Departments say they want to have at that point.

So, planning is still critical. It is important. Where we have seen them integrate planning very heavily into their various activities, there has been a success with those efforts, going all the way back to their early initiatives to put the FHIE system in place. We want to see that continue at this point.

Senator BURR. From the standpoint of the current effort—

Ms. MELVIN. Yes?

Senator BURR [continuing]. Would you agree that VA and DOD are on a pathway to meet their goals on the time line that they have agreed to?

Ms. MELVIN. They are on a pathway to meeting a goal. I am not sure what that time line is, to be quite honest with you. They have high-level milestones at this point. What we are looking for are more detailed ones. We do believe that when September 2009 gets here, that yes, they will be in a position of saying they have interoperable capability for sharing data. There is no doubt with that because they are already there. How much beyond where they are is still a question for us.

Senator BURR. OK. As I was preparing and the Chairman was asking questions, you talked about standards, and again, I think the only thing we have to compare this to is the private sector. I guess my question would be this: are the standards that they are having difficulty working out standards that have been adopted by entities in the private sector, or are these standards that the private sector is still debating and discussing as to what the correct standard is going to be?

Ms. MELVIN. We have not yet looked in depth at how they are actually defining their standards; but, based on our understanding of just the issue of standards in general, it is a very difficult task to define standards within and also to make sure that they complement those that are in the Federal sector. So, I think it is a little bit of both in terms of what they are doing. But, it is a difficult task and I don't want to, by any means, discount the difficulty that goes into actually making those determinations as to what is appropriate for sharing data.

Senator BURR. Great. We have got a long period, Mr. Chairman, so I want to proceed. I do want to make a statement, even though I didn't make an opening statement.

I think what the Committee has asked DOD and VA to do is to begin to make progress, to begin to establish where it is that both are trying to go. I think it is safe to say—as involved as I am in the private health care side of the policymaking—it is very difficult to map every milestone that you are going to hit along that road, but it is absolutely essential that both parties know where the final point is that they are trying to get to. I think that has been established.

It is going to be important that GAO work with us, as well as VA and DOD, to try to acknowledge the completion of certain steps. I do that with the full knowledge, Mr. Chairman, of realizing that we can't even produce an IT bill for private health care out of Congress. So, I know how difficult it is to talk about the advances in technology and how we incorporate those advances into medicine broadly. We have done it well in the delivery of care. We have not done it well in the sharing of the outcome of that delivery and that is what we are here discussing; and it is something the private sector is still and will continue to be challenged on how they get there.

I thank the Chair.

Chairman AKAKA. Thank you very much, Senator Burr.

Let me continue on a second round here quickly, Ms. Melvin. GAO has raised concerns about whether or not the Departments' IT initiatives are plugged into a comprehensive strategy for seamlessly sharing health information, and my friend and partner here has asked about a road map. Along similar lines, does the current data sharing plan address these concerns?

Ms. MELVIN. At a high level, it does address the concerns. Again, as I stated, what we would want to see, in addition to what they have done, is to have some more details. I would agree that they have identified their plan as a living document, and, in essence, that is what a plan would have to be, because you are making adjustments along the way. So, that is very fair and that is very important to recognize.

At the same time, there must be a standard, or a starting point, I should say, relative to specifically what milestones from an interim nature the agencies work against to make sure that as they move forward, they are coming to an end state that they have agreed to; and that they can do so successfully. Without benchmarks, for example, to really gauge their progress, there is no way to really know whether, at the end of the day they will have achieved what it is that they set out to achieve and whether it is accomplishing the objectives that they intend to.

Chairman AKAKA. I know that DOD does not have an integrated inpatient electronic cord system. It would appear that this is a major, let me say, stumbling block for the prospect of VA and DOD fully sharing electronic medical information. Will you please share your view on that?

Ms. MELVIN. Well, we do understand that they have now developed or completed a study that relates to their joint inpatient record. Certainly, that is a critical piece of information that must be weighed, or should be weighed, I should say, in terms of having

a complete assessment or a complete picture of the patient's health history. We look forward to examining their study in more detail to understand more clearly just what their plan is at that point, to look more closely at what types of solutions they are considering to make this happen.

Chairman AKAKA. Thank you. Thank you very much.
Senator Burr?

Senator BURR. No further questions.

Chairman AKAKA. Well, I want to thank you so much. You have done a splendid job here representing GAO. We certainly appreciate it and thank you for your statement and your responses.

Ms. MELVIN. Thank you, Chairman Akaka. I appreciated being here.

Chairman AKAKA. Let me introduce our second panel here. On our second panel this morning are representatives from the Department of Defense and Veterans Affairs. Joining us from VA is Dr. Michael Kussman, Under Secretary for Health. From DOD, we are pleased to welcome Dr. Ward Casscells, who is Assistant Secretary of Defense for Health Affairs. I want to welcome both of you.

This hearing is especially timely, given that the Departments have recently completed their data sharing plan and received recommendations on a joint inpatient record system from an outside contractor.

Aloha, gentlemen. I see you each have a number of individuals accompanying you this morning and would invite you to introduce them to the Committee. Dr. Kussman?

Dr. KUSSMAN. Aloha, Mr. Chairman, Mr. Ranking Member.

Chairman AKAKA. Aloha.

Dr. KUSSMAN. Thank you very much for inviting us. Let me introduce the people to your right and my left. First is Dr. Paul Tibbits, who is the Deputy Chief Information Officer for Development in the Office of Information and Technology; and Mr. Cliff Freeman, who works for us in IT in the VHA, but is now the Acting Deputy Director for the Joint Integrated Information Office which the GAO discussed and we will discuss, as well.

I have a third person sitting back there: Dr. Ross Fletcher, who is the Chief of Staff and a physician at the Washington VA, who with your support and agreement, will give us a demonstration this morning on the interoperability of IT with DOD and the VA.

Chairman AKAKA. Dr. Casscells?

Dr. CASSCELLS. Thank you, Mr. Chairman, Senator Burr. I am delighted to be here representing the Defense Department. With me is our Chief Information Officer, Mr. Charles Campbell.

Chairman AKAKA. Thank you. Thank you very much.

Will you please begin with your statement, Dr. Kussman.

STATEMENT OF MICHAEL KUSSMAN, M.D., UNDER SECRETARY FOR HEALTH, U.S. DEPARTMENT OF VETERANS AFFAIRS; ACCOMPANIED BY PAUL A. TIBBITS, M.D., DEPUTY CHIEF INFORMATION OFFICER, ENTERPRISE DEVELOPMENT, U.S. DEPARTMENT OF VETERANS AFFAIRS; CLIFF FREEMAN, ACTING DEPUTY DIRECTOR, DOD/VA INTERAGENCY PROGRAM OFFICE (IPO); AND ROSS FLETCHER, M.D., CHIEF OF STAFF, VA MEDICAL CENTER, WASHINGTON, DC

Dr. KUSSMAN. Again, aloha, Mr. Chairman and Mr. Ranking Member. Thank you for the opportunity to update you on the status of our efforts to exchange electronic medical information with our partners at the Department of Defense. We appreciate this Committee's continuing support of our efforts.

I would like to request my written statement be submitted for the record.

Chairman AKAKA. Without objection, it will be included in the record.

Dr. KUSSMAN. There was a time when clinical care was recorded on paper and files had to be copied and transferred in person. This system was fraught with inefficiencies and patient care suffered as a result. Records were incomplete, unreadable, or inaccurate. Our physicians recognized this and helped develop VA's Electronic Health Record, which is now known the world over as the standard for electronic medical records.

A similar phenomenon has happened in our collaboration with DOD. We understand we share patients, and there are times when VA treats active duty servicemembers and times when DOD treats veterans. Our clinicians, again, have led the way through forums like the Joint Clinical Information Board, where VA and DOD providers discuss what they need and technical engineers figure out how to meet those needs.

It is important to note that there is a difference between the technical definition of interoperability and the functional definition. If you will permit me to use a simple analogy, I think you will understand my point a little more clearly. When you pick up a cell phone and call someone, it doesn't matter if you use one phone company or they use another. The cell call connects just the same. Similarly, it really doesn't matter to our providers if DOD uses AHLTA or VA uses VistA, as long as the patient's needs are met and they can connect the information they need. Delivering information across the continuum of care in DOD and VA is the true priority.

In this regard, I think DOD and VA are succeeding. We have come a long way. Almost all essential health information is accessible across the systems. Providers can see pharmacy information, surgical reports, lab results, allergies, vital signs, and discharge summaries. This is true at every VA medical center in the country.

We know there is still more to do, both in terms of communicating these advances to our clinicians and filling in gaps in the system. But some of the biggest hurdles have already been passed. A VA provider in Dubuque, Iowa, can access clinical data on a patient added to a health record by a physician in Baghdad. Radiologic images and inpatient information from Walter Reed or Be-

thesda Naval Medical Center can be seen by our polytrauma facilities for seriously injured veterans and servicemembers.

All of these efforts are made easier by the Veterans Tracking Application, a case management tool used to track patients and ensure they are receiving the care that they need, even if it is not from us. And Healthy Vet will extend these capabilities even further by supporting data sharing between VA, DOD, and private providers.

Mr. Chairman, I would like to take a moment to do something that is a little unconventional. I would like to share the view of a clinical provider to show you how clinical care has directly improved through advances in data exchange between VA and DOD. Dr. Ross Fletcher, who I already acknowledged is the Chief of Staff at the DC VA Medical Center and a primary care physician there, will walk through a demonstration that shows you the information our clinicians can see and how they use that information to better provide care to our patients.

Dr. Fletcher?

Dr. FLETCHER. One of the best ways to let you know how things are going is to describe the care of some patients that we take care of just down the road at the VA hospital in Washington; and realize that what we can do in Washington can be done across the system in San Francisco, Miami, anywhere in the VA. This is not unique to our place at all.

[Dr. Fletcher begins projecting a slideshow for all to see.]

Dr. FLETCHER. The first patient I am going to describe is a dual-use patient. He actually came over when he was still a servicemember and we treated him for his Traumatic Brain Injury. He was, as he told me, exposed to blasts at least 11 times—the last one in Afghanistan rupturing his eardrum, the tympanic membrane, and causing the TBI that we were treating him for.

This is the way I view his chart, and this is actually redacted, but is the way it would come to me just as I would see him. If I see this button up above saying, “remote data is available,” I merely click on it and see this list of where that data is present, and the Defense Department is frequently an area that I can check off and then see. When I do that and then go to “reports,” I see the list of things I can get from the DOD, including the progress notes. You can see that in this progress note—this is from the field hospital in Afghanistan—describing his original operation to remove fragments of shrapnel from his right scalp and describing him able to hear, but later in his course he became unable to hear, as well, and had a ruptured tympanic membrane, which was repaired.

I can see it this way or I can see it through the VistA website. On the VistA Web, everywhere across is present. Over here, there is DOD data. This is the standard way I look at any patient’s films and records anywhere in the VA, whether it is in Miami or DOD. It is seamless to me as a doctor to look at the data I see from DOD.

I can pick up his pharmacy orders, and initially I will pick up the local orders. It is done in Baltimore, so there were none. The Defense Department is still new, but, as I move forward, on the next line, you can see that the Defense Department is now done and a whole list of medicines from Bethesda Navy, Walter Reed appear. I just simply click on this button. It opens up to show me that

in July 2008, we can see all of his active medications. He is now a veteran and I am treating him. If I were unable to see which drugs he was getting from VA, it would be a very dangerous situation for us, indeed. And the other thing that it assures me is these drugs are available on the database, which allows me to give the right prescriptions.

If I go down on the list showing “DOD and third party medications,” I can see that Landstuhl, Germany, Walter Reed, Eisenhower, Camp Shelby, even a CVS pharmacy in the private sector are medications that are available. There is an agreement with DOD that if the patient gets medications from the private sector, they need to be sent to them electronically. Needless to say, I am delighted when I am seeing them sent to me, as well, over at the VA. It is automatic. I am seeing all of the medications from Washington and everywhere else in the same list.

If I go to another patient on the next slide, where there were many—there are about 4.2 million such patients where DOD has sent their data over to the VA, and I can simply look at the list of, say, pharmacy outpatients, as well. This patient got his medications at Costco, CVS pharmacy, and the DiLorenzo TRICARE Health Clinic at the Pentagon. I like to show this because I worked with Colonel DiLorenzo for many years when I was in the Army several years ago.

This is the same patient. If I simply click the flag, I can isolate the abnormal lab values. All the lab values are in a line, whether they are from DOD or Washington, and any of the abnormally high or low values I can see immediately. I don’t have to look at the rest of the list, which now is normal. So, it is a very easy way for me to take care of the patient and see his lab chemistries.

This next patient is a severely wounded warrior. He is one of the patients, when he goes from Walter Reed to one of our polytrauma sites, they send all of his images as well as all of his tests to us. This particular patient suffered an IED blast, causing Traumatic Brain Injury and a fractured spine.

If I go to allergies, I can see that Washington has not assessed them yet because he has not arrived at our place. But if he had come into the emergency room and I looked at this list and waited for the initialization to stop at DOD and become done, I can see that he had a penicillin allergy at Brooke, at Martin, and Bethesda. The beauty is that this fact is in our combined health data repository, the Clinical Health Data Repository, which allows me—when I am giving him or trying to give him penicillin—to have the next window come up saying that wasn’t assessed at my place, but at remote sites. Penicillin is an allergy that is noted, and I would immediately then cancel the order and go forward. This is computable data in the CHDR, as we now call it, the combined database that exists on both sides—the DOD and the VA—for immediately taking computable data and guiding what I do for writing orders.

The images that are sent over in the Severely Wounded Warrior Program are seen here. This is his abdomen, and I can manipulate this just like I can manipulate it on the VA side. They sent it to Richmond, but there is a remote image view, which means that if the patient was seen in my hospital, I can see into Richmond or anywhere else in the VA. Notice that I can see actually where the

screws are placed into his spinal column. As a matter of fact, here is an intact vertebra and down here it is split, so the fracture of the vertebra is easy for me to see on the films that were originally taken in Walter Reed, now distributed across the entire VA, because they were simply sent to one of our hospitals.

There is an Acrobat file, 1,658 pages, as I recall, which I won't show you today, but that comes across with all of the data to the VA. And as a matter of fact, I have been told that some of the—we see it nicely at our site, and now the Walter Reed doctors want to see this same file on their site. So, we might have to send it back to them and we would be delighted to do so.

This third patient is a dual-care patient, now with the VA. She was hit by a truck in Kuwait, suffered severe Traumatic Brain Injury, was in a coma for many months and hydrocephalus was diagnosed and was relieved and she woke up, and I will go through that story.

Again, this is the way we see the patient. The Department of Defense data is available and I can see the chemistries and hematologies from anywhere she is, Bethesda Navy or the Palo Alto VA. I can see remote consults. This is Landstuhl, Germany. I can see discharge summaries from the military or Palo Alto. They are both seen. And I can see radiology reports.

If I activate Richmond to see the films from Richmond, I can compare at my hospital the earlier March 18 films against the later August 21, 2005, films. Notice there are these big openings in the brain. These are the ventricles and they are markedly dilated. They should look more like this. You can see that dilatation is putting pressure on the brain and this patient is staying in a coma. But once we saw this, we knew there was a way out for this particular individual. A catheter was placed inside the ventricle and a shunt to the outside was then established, decompressing this area and allowing the brain to not be under pressure. She woke up. She could then talk, move around. That was 2005.

I got an e-mail from this patient just this month saying that she was leaving Livermore VA; she had gone out to Palo Alto and is going home. So, this is a real good story. Her coma changed to a much better function.

This is an x-ray that we are now able to see into DOD just like we can see into Albuquerque or Miami. If you weren't able to see the films across the entire spectrum where they were taken, you would not be able to follow them well; and now simply by clicking on DOD, we see "DOD films," which shows us the knee on the right side with the prosthesis and the knee on the left side without. This is very, very valuable. I can actually go to the Albuquerque films and see that this knee is not lining up properly and I am going to have to worry about the fact that this knee could go the same course as the one that had a replacement. But, being able to follow them all allows me to see the patients quite well.

Using all of these techniques, which I won't elaborate on, we are now able to see a large amount of data. Not only can we access it easily and well, but we are able to see a lot more of it and are able to return the veteran to his best possible recovery with this high degree of interoperability that we are already seeing and is available to us as clinicians. Thank you very much.

Chairman AKAKA. Thank you very much, Dr. Fletcher. I am very encouraged by your view that you have some excellent clinical tools to work with, and we are delighted to see this.

Dr. Kussman, anything else to add before we move to Dr. Casscells?

Dr. KUSSMAN. Yes, Mr. Chairman. Thank you, Ross, for that presentation. I hope that you and the Ranking Member and other people here found this presentation helpful in the degree of interoperability of information.

This is an area obviously that is vital to patient care, and sometimes it is easy to forget what this is all about, focusing on the delivery of care from one system to another. At the end of the day, we believe that the interoperability that exists has made the care much better. It is an exciting opportunity for us to lead the Nation, and the VA and DOD's leadership are equal to the task. When we establish a common consensus, an infrastructure for interoperability of records, millions of patients, veterans and non-veterans alike, will benefit.

Mr. Chairman, thank you again for your time. I am prepared to answer any questions you may have. Aloha nui loa.

[The prepared statement of Dr. Kussman follows:]

PREPARED STATEMENT OF HON. MICHAEL J. KUSSMAN, M.D., UNDER SECRETARY FOR HEALTH, VETERANS HEALTH ADMINISTRATION, DEPARTMENT OF VETERANS AFFAIRS

Mr. Chairman, Thank you for the opportunity to update you on the status of our efforts to exchange electronic medical information with our partners at the Department of Defense (DOD). This Committee has always been supportive of our efforts and I look forward to providing you the information you need. Accompanying me today are Dr. Paul Tibbits, VA Deputy Chief Information Officer for Enterprise Development, and Mr. Cliff Freeman, Acting Deputy Director of the newly formed DOD/VA Interagency Program Office (IPO).

VA and DOD continue to work toward improving the exchange of medical information to best serve our active duty servicemembers and veterans who come to us for medical care. Today, we are sharing more information than ever before. Although our data exchanges are unprecedented in the scope and amount of data we share, we realize there is more work to be done and believe we are taking the steps necessary to meet our goals and comply with the direction provided by the National Defense Authorization Act (NDAA), Section 1635. I will address some of the issues facing VA as we work with DOD to expand our access to shared electronic medical information.

The NDAA mandates that both Departments achieve full interoperability of electronic health record capabilities and systems by September 2009. The NDAA includes the requirement to establish a DOD/VA Interagency Program Office (IPO) to oversee the development of interoperable electronic medical record systems by September 2009.

INTERAGENCY PROGRAM OFFICE AND INFORMATION INTEROPERABILITY PLAN

The Government Accounting Office report GAO-08-954 recommended that VA and DOD give priority to fully establishing the IPO and finalizing the implementation plan. The IPO is operational, has developed high level milestone activities, is fully engaged with the appropriate offices in VA and DOD, and is developing a detailed implementation plan to assist the Departments in meeting the NDAA data sharing goal by September 2009.

The DOD/VA Information Interoperability Plan (IIP) was recently signed and delivered to Congress. It was also released to GAO. The IIP describes the current state of electronic data sharing between the Departments and identifies the gaps that must be addressed to achieve the level of information interoperability necessary to support the clinical and benefits needs of our veterans and members of the Armed Forces. The IIP provides the strategic organizing framework for current and future work and establishes the scope and milestones necessary to measure progress toward intermediate and long term goals.

The IIP also emphasizes leveraging our existing data exchanges through which we already share almost all essential health information in viewable format. By September 2009, we will enhance the existing data exchanges to share those additional types of information identified and prioritized by our newly formed Joint Clinical Information Board (JCIB). The JCIB is comprised of clinicians from both DOD and VA. It is responsible for identifying and prioritizing the types and format of electronic medical information that needs to be shared by DOD and VA to care for our patients. This group ensures our data sharing is focused on needs identified and prioritized by clinicians for clinicians. Thus, we have used our clinician community to define for us those high priority items that must be shared by September 2009. Once prioritized and approved by the Health Executive Council, the requirements are handed off to requirements definition teams and then to our information technology teams to develop applications and tools to put these requirements into operation.

DOD and VA have seen an increase in the types of electronic data shared and the availability of tools to view this information. Now more than ever, it is critical that we inform our clinical community of our good work in this area and the availability of this information. Recent visits to some of our local facilities have shown us we can do a better job of getting out the good news about these new capabilities and training our providers on how to access this information. Both DOD and VA providers are busy with their number 1 priority, taking care of patients. However, it is incumbent upon us to ensure our providers are not only aware of the health care data available to them for viewing but are skilled in using the tools to obtain this data. VA is developing comprehensive communication and training strategies to remove some of these process-based barriers to using the excellent tools available to access DOD information on our patients. I will discuss the specific types of data sharing occurring in more detail below.

EXCHANGE OF ELECTRONIC MEDICAL INFORMATION

VA and DOD are successfully sharing electronic medical information on separated servicemembers and shared patients who come to both VA and DOD for care and benefits. Since 2001, the Federal Health Information Exchange or "FHIE" has accomplished the one-way transfer of all clinically pertinent electronic information on more than 4 million separated individuals—approximately half of these individuals have come to VA for health care or benefits as veterans. In addition to FHIE, VA and DOD clinicians are using the Bidirectional Health Information Exchange or "BHIE" to view medical data on shared patients, including veterans, active duty personnel and their dependents from every VA and DOD facility. Today, VA and DOD continue to share bidirectional viewable outpatient pharmacy data, allergy information, inpatient and outpatient laboratory results (including chemistry, hematology, microbiology, surgical pathology, and cytology), inpatient and outpatient radiology reports, ambulatory progress notes, procedures, and problem lists.

Most recently, at the end of 2007 and in 2008, we enhanced our bidirectional exchange by adding vital sign data (including blood pressure, heart rate, respiratory rate, temperature, height, weight, oxygen saturation, pain severity, and head circumference) from all VA and DOD facilities, DOD Theater clinical data (including inpatient notes, outpatient encounters, and ancillary clinical data such as pharmacy data, allergies, laboratory results, and radiology reports), and inpatient discharge summaries from 18 of the largest military treatment facilities.

Additionally, to support our most seriously injured wounded warriors, DOD is transferring digital radiological images and scanned inpatient information for every patient being transferred from Walter Reed and Brooke Army Medical Centers and Bethesda National Naval Medical Center to one of our four polytrauma centers in Richmond, Tampa, Palo Alto and Minneapolis. Our polytrauma doctors find this information invaluable for treating our most seriously injured patients and we are continuing to work to improve the presentation of this information.

In addition to the viewable text and scanned information we receive and share with DOD, VA and DOD are sharing computable allergy and pharmacy information on patients who use both health care systems. The benefit of sharing computable data is each system can use information from the other system to conduct automatic checks for drug interactions and allergies. In VA, we have implemented this capability at seven of our most active locations where patients simultaneously receive care from both VA and DOD facilities. Once a patient is "turned on" with this capability, his or her pharmacy and allergy information is computable enterprise-wide in DOD and VA and available for this automatic clinical decision support.

Finally, our social workers, transition patient advocates, and other military liaison staff continue to use the Veterans Tracking Application or "VTA" successfully

in order to improve the coordination of care for patients transitioning from DOD to VA. VTA provides our staff with key patient tracking and patient coordination information on a near real-time basis.

DETAILS OF THE DOD/VA INFORMATION INTEROPERABILITY PLAN (IIP)

The DOD/VA Information Interoperability Plan was developed in response to the NDAA directing the Departments to develop a single point of accountability in the rapid development and implementation of capabilities that allow for full interoperability of personal health care information. The IIP provides a roadmap to guide our Departments' information technology investment decisions and establish a shared understanding of interoperability principles, practices, enablers, and barriers.

The IIP is a living document whose ultimate purpose is to identify and address the information needed by the Departments to improve continuity of care and benefits administration for our Nation's servicemembers, veterans, and their beneficiaries. To that end, the plan aligns our goals with twenty-two specific initiatives that make up the pathway to information interoperability. Eleven initiatives focus on the goal of improving continuity of patient care. Five initiatives focus on the goal of improving benefits administration. Three initiatives focus on the goal of improving the information technology infrastructure, and two initiatives focus on the goal of improving population health and research. One initiative cuts across all four goals, establishing an Interagency Program Office to help ensure our efforts remain coordinated, focused, and responsive to the direction received in the NDAA.

Each initiative has a description and high level implementation timeline. While we are moving forward to flesh out the specifics for all of the initiatives, the Interagency Program Office, as specifically mandated in the NDAA, is almost completed. As discussed earlier, the Interagency Program Office is operational, functioning within its charter, and is on target to complete the few remaining implementation action items in the next few months.

In addition to identifying those actions necessary to achieve inter-Departmental interoperability, the IIP also identifies the barriers to success that need to be overcome. These barriers include concerns about data standardization and quality, information privacy and confidentiality, the investment cost to implement the initiatives, and the investment cost to upgrade legacy systems and infrastructure.

INTEROPERABILITY BY SEPTEMBER 30, 2009

VA is committed to working with our DOD partners to implement the provisions of the NDAA requiring interoperability by September 2009. Our main commitment is to ensure doctors and health care staff from both Departments have the information they need from each other to treat our common patients. Prior to the passage of the NDAA, the Dole-Shalala Presidential Commission on Care for America's Returning Wounded Warriors recommended the VA and DOD accelerate efforts to share data by ensuring all essential health information is viewable, bidirectional, between our providers. The departments anticipate that by the end of fiscal year 2008, we will meet this goal. This is not to say all electronic medical data will be shared; only to emphasize that everything deemed essential by our clinicians will be shared.

With respect to the September 2009 target, the JCIB plays a key role by determining from a clinical perspective, the categories and priorities of clinical information that must be shared to most effectively treat our beneficiaries and meet the NDAA requirements. The JCIB recommends to the DOD/VA Health Executive Council the types and format of health information that is necessary to provide top quality, effective care to shared patients, wounded warriors coming to us for treatment and rehabilitation, and veterans transitioning to VA for care and benefits. The HEC approves/disapproves the JCIB recommendations.

To attain full interoperability of electronic health record capabilities and systems by September 2009, the HEC approved the JCIB recommendation to add to the list of essential data requirements, family and social history data, and expanded types of patient questionnaires and forms. DOD has undertaken plans to pilot test a capability to scan paper documents and associate them with a specific patient so that providers are aware that the documents are available. In addition, DOD intends to implement their inpatient clinical documentation system at additional military treatment facilities in fiscal year 2009, enabling VA providers to view inpatient clinical documentation on a greater number of patients. Additional inpatient documentation such as operative notes, inpatient consultations, transfer summary notes, and inpatient history and physical reports, currently piloted in the Puget Sound area, will also be viewable by VA sites.

Under the purview of the Senior Oversight Committee or "SOC," and in conjunction with the ongoing efforts of the DOD/VA Joint Executive Council, we are continuing to accelerate efforts to meet the immediate needs of the seriously injured transitioning to VA as a result of the current operations in theater settings. All transitioning servicemembers will benefit from this work. Line of Action 4 under the SOC continues to focus on data sharing needs in the areas of disability evaluation, Traumatic Brain Injury and Post Traumatic Stress Disorder, case management, and reserve component records. The SOC has been instrumental in defining requirements and implementing acquisition activities to support these key critical business needs.

Despite these accomplishments, we realize our work is not done and continue to expand the types of electronic medical data we share. For example, we have expanded a pilot program to share digital radiology images bidirectionally, beyond the initial test site in El Paso, Texas, to Evans Army Community Hospital and VA Eastern Colorado Health Care System and Naval Health Clinic Great Lakes and North Chicago VA Medical Center where images are key to critical medical sharing programs. Over the next several months, we will expand this capability to additional sites including Washington DC, VA Medical Center, Walter Reed Army Medical Center, and National Naval Medical Center where VA providers will use DOD radiology images to conduct service disability rating examinations.

Additional work is being done to expand the excellent work done in the Puget Sound area to develop the capability to share key inpatient documentation. Another example of our ongoing efforts is the expansion of the ability to share computable health data beyond the initial seven locations listed below. The capability enabling the exchange of computable outpatient pharmacy and medication allergy data for shared patients was made available to all DOD sites in December 2007.

- William Beaumont Army Medical Center/El Paso VA Health Care System
- Eisenhower Army Medical Center/Augusta VA Medical Center
- Naval Hospital Pensacola/VA Gulf Coast Health Care System
- Madigan Army Medical Center/VA Puget Sound Health Care System
- Naval Health Clinic Great Lakes/North Chicago VA Medical Center
- Naval Hospital San Diego/VA San Diego Health Care System
- Mike O'Callaghan Federal Hospital/VA Southern Nevada Health Care System

VA and DOD will enhance this capability by adding computable laboratory (chemistry and hematology) results in 2009.

I am pleased to inform you that VA and DOD have received the third-party study that evaluated our options for developing joint electronic inpatient capability and provided the complete report to this committee on September 19th, 2008. As we consider the report's recommendations for approval by the DOD/VA Joint Executive Council, we are simultaneously exploring a forward moving strategy.

MEETING THE NDAA REQUIREMENTS

VA and DOD's current plan to meet NDAA requirements includes leveraging existing data exchanges to support the expansion of additional data sharing capabilities. Most importantly, VA appreciates the continued support of this Committee and those at the national level, including the National Coordinator for Health Information Technology, as we work to ensure VA health care remains state-of-the-art and that our IT tools are capable of supporting our workflow.

HealtheVet will be the foundational tool allowing us to not only deliver top quality care to our patients, but to support data sharing capabilities with DOD and eventually other health care partners that treat our veterans. A significant number of our veterans receive care from not only VA and DOD, but private providers as well. Our vision is to ensure their medical information is available wherever and whenever it is needed. To achieve this goal, we must continue developing HealtheVet and therefore, continued funding and support of this comprehensive initiative is needed.

Thank you once again for the opportunity to address this Committee and provide you with an update on the important work we are doing to improve medical record sharing with DOD. I and my colleagues will attempt to address any additional questions you might have.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. DANIEL K. AKAKA TO MICHAEL KUSSMAN, M.D., UNDER SECRETARY FOR HEALTH, U.S. DEPARTMENT OF VETERANS AFFAIRS

Question 1. Doctors Kussman and Casscells, I understand that currently 65 percent of the care provided by DOD and 40 percent of the care provided by VA is pur-

chased from the private sector. Only 9 percent of the physicians in private outpatient practice use electronic medical records. How will you overcome this reality and ensure the medical information from this care is included in the service-members/veterans electronic health record.

Response. The Department of Veterans Affairs (VA) believes that the growth of the nationwide health information network (NHIN) an initiative led by the Office of National Coordinator for Health Information Technology (ONC) within the Department of Health and Human Services is the best way to get veterans' data from the private sector. VA participated in the NHIN demonstration at the American Health Information Community (AHIC) meeting in September of this year, where it showed real-time transmittal of actual medical records. NHIN uses a secure, private, standards-based approach to interoperability between Federal and private sector health providers. When NHIN enters into its production phase, any provider who has joined the "trusted network" of NHIN will have access to VA/Department of Defense (DOD). This document is a list of clinician-approved data elements pertinent to the health care of a veteran or servicemember. Included on the list of data elements are items such as an up-to-date list of medications, a list of recent lab tests and results, a list of known allergies and demographic information. Both VA and DOD have accepted this standard data set for interoperable data exchange.

As the availability of health information expands and reflects that VA/DOD are participating in the development of NHIN, VA believes that private sector providers will request their respective networks and health systems to adopt NHIN-compliant software. VA has limited ability to influence the information technology (IT) preferences and purchases among private sector providers. We do know, however, that there is interest in the provider community to improve the quality of care through electronic interoperability among VA/DOD and the private sector.

Question 2. Doctors Kussman and Casscells, I believe we all can agree that VA currently has a world class inpatient electronic health records system. My question for the both of you is, what impact would the development of a new joint VA/DOD inpatient health records system have on VA's current system?

Response. The joint VA/DOD electronic health record solution common services strategy has the potential to improve upon VA's current system. Common services, as well as an organizational and technology neutral approach, will allow the departments to develop data and business services once, and expose those services to organizations within and beyond the DOD/VA continuum. It will engender the level of collaboration and commitment most likely to institutionalize DOD/VA data sharing and process integration for the long-term. Further, it will allow the departments to conduct business with providers outside DOD/VA efficiently. The DOD/VA investment could lead to a groundbreaking solution that accelerates national strategic objectives for patient-focused health care and population health. The terms "business services" and "conduct business" refer to those clinical activities and processes that are common to all care environments. For example, admitting patients, tracking bed availability, ordering pharmaceuticals, securing health data, etc. are services that are common to health care environments, including VA, DOD and private sector. A common services approach permits individual environments to use and re-use common technology packages that support common business activities, while simultaneously using other technologies that support individual needs. In the long term, such an approach provides more flexibility in technology resource planning and improves cost effectiveness for sharing partners.

Question 3. Doctors Kussman and Casscells, as a result of merging the Great Lakes Naval Hospital and the North Chicago VA Medical Center in 2010, the number of shared VA/DOD patients will increase roughly five-fold from 18,000 to 100,000. Isn't this the real test of VA/DOD interoperability? And how are we doing to ensure that it works.

Response. VA does not anticipate the increase in shared patients to be an issue. VA and DOD have teamed up on information sharing initiatives since 2000 and currently share a significant amount of health information, however, the North Chicago Federal Health Care Center (FHCC) initiative is very different from previous VA/DOD sharing efforts due to the challenges of addressing local information sharing requirements as a combined facility treating both VA/DOD beneficiaries. To ensure success, VA/DOD will continue to work with local and enterprise teams to address the highest priority needs and ensure FHCC is successful.

Question 4. Dr. Casscells, I understand from recent news reports that DOD is actively pursuing alternatives to its current electronic health records system. Will the problems you have identified with DOD's current electronic health record system affect VA/DOD's ability to share data in the near- or long-term?

Response. To be provided by DOD.

Question 5. Doctors Kussman and Casscells, I understand electronic health records for Reserve soldiers are less than complete. How do we address the issue of establishing a comprehensive electronic health record for these part-time soldiers.

Response. The health care provided to the Reserve/Guard when they are deployed with the active duty forces, is documented in the Armed Forces health longitudinal technology application (AHLTA). If the Reserve/Guard soldier receives care in VA post-deployment, DOD is able to access that data. When reserve members come to VA for care while on reserve status, their medical information is captured electronically in VA's VistA computerized patient record system (CPRS). By way of existing data exchanges such as bi-directional health information exchange (BHIE), VA's electronic health record (EHR) information is already available to DOD if that reserve member returns to active status.

For care received in the private sector, in fiscal 2009, DOD will provide an image scanning capability to enable DOD to scan information from the managed care support contractors, such as specialty care consults, so it is available to DOD providers. For the long term, DOD will continue to support Department of Health and Human Services' efforts to foster health information sharing with the private sector. Specifically, VA/DOD will support NHIN activities to leverage recognized interoperability standards and promote the exchange of health information with private health care organizations and provider networks. These efforts will help to ensure the capture of private sector health care information to enhance the overall quality of DOD's longitudinal health record.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. PATTY MURRAY TO MICHAEL KUSSMAN, M.D., UNDER SECRETARY FOR HEALTH, U.S. DEPARTMENT OF VETERANS AFFAIRS

Question 1. If access control alone will not insure the security of the core database information, what steps have been taken by the VA to protect the integrity of the core information once it has been accessed?

Response. In VA's veterans health information systems technology architecture (VistA) environment, access control mechanisms currently in place limit a user's access to specific applications, files, and data fields, and security keys limit a user's ability to take actions in specific application areas. Once a user is in the system, there is limited data field auditing functionality in place in VistA to record information on who and when changes are made to audited data fields. When data fields are "set" to be audited, the date and time the change was made, the user's name, and the old and new data values are stored in an audit file that can be queried and/or printed to obtain the audit data. This functionality enables an ongoing chronological list of who made what changes to data values of fields that have been selected to be audited.

Another step being taken by VA to expand on the limited auditing functionality described above, is an audit service project. It will provide the capability to document and maintain a permanent record of all authorized and unauthorized access to health information systems, as well as disclosure of confidential health care information. A workgroup has been formed to identify and implement an enterprise audit solution consistent with Federal, regulatory, and VA policies.

Techniques used to protect VA databases include authentication, password security, logging and auditing. Role-based access and biometrics initiatives are also being incorporated into VA's application design and development strategies. Finally, certification and accreditation through VA's Certification Program Office ensure security controls are implemented and working as intended with respect to information security. This includes a review of controls to ensure the integrity of the data and publishing an assessment report to document the current level of security.

Question 2. Has the VA considered augmenting the encryption access with stand-alone security within the database that would force compliance with policy and procedures as a self governing action embedded into the very content that is being protected?

Response. VA has implemented several encryption solutions. One solution encrypts hard drives on laptops, and another encrypts the content of email messages and attachments and is used to transmit sensitive data across the VA network and to our business partners. While these are point solutions, they can be combined with other security controls to provide for a defense-in-depth environment for VA information systems and data.

VA is very active in the NHIN and the Organization for the Advancement of Structured Information Standards (OASIS) health care profile efforts, and is leveraging those efforts in the current and future specifications and design for the

electronic health record (EHR) interoperability that is underway with DOD. These initiatives are aimed at development of standard formats for secure exchange of health care data to further the interoperability of information systems in both the public and private sectors.

Question 3. Would the VA consider the combination of Encryption and “self governing content” to create a total security protocol.

Response. VA will be leveraging the work done by subject-matter experts in both the public and private health care sectors relative to the NHIN and OASIS health care profile efforts. Development of security, privacy and information assurance requirements for the electronic health record (EHR) interoperability, underway with DOD, will be in accordance with common standards and certification criteria that will enable secure exchange of health care data, furthering interoperability of information systems in both the public and private sectors. The goal is to create a total security protocol associated with interoperability and data exchange between public and private section health information systems.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO MICHAEL KUSSMAN, M.D., UNDER SECRETARY FOR HEALTH, U.S. DEPARTMENT OF VETERANS AFFAIRS

Question 1. Please provide for the committee an overview of the decisionmaking and governance structure currently employed by and scheduled to be used by the departments with regard to health information technology.

Response. VA/DOD health information technology initiatives are jointly governed at the highest levels of the Departments. The VA/DOD Joint Executive Council (JEC), co-chaired by the Under Secretary of Defense for Personnel and Readiness and the Deputy Secretary of Veterans Affairs, is comprised of senior leaders from VA/DOD. The JEC was chartered to enhance VA/DOD information sharing and collaboration activities, to ensure the efficient use of Federal services and resources, and to identify opportunities such as policy, operations, and capital planning to advance seamless transition initiatives. The JEC provides leadership oversight of the Health Executive Council and Benefits Executive Council, and all other councils or workgroups designated by the co-chairs. Through a joint strategic planning process, the JEC makes recommendations to the Secretaries regarding the strategic direction for the joint coordination and sharing efforts between the agencies, and oversees the implementation and progress of those efforts through the VA/DOD joint strategic plan.

The VA/DOD Health Executive Council (HEC), co-chaired by the Assistant Secretary of Defense (Health Affairs) and VA's Under Secretary for Health, was created to establish a high-level program of interagency cooperation and coordination in a joint effort to improve health care and reduce costs for VA/DOD beneficiaries. The HEC is responsible for identifying changes in health care-related policies, procedures, and practices and assessing further opportunities for the coordination and sharing of health-related services and resources.

The VA/DOD Benefits Executive Council (BEC) is co-chaired by the DOD's Principal Deputy Under Secretary of Defense (Personnel and Readiness) and VA's Under Secretary for Benefits. The BEC collaborates on initiatives to expand and improve information sharing, refine the process of records retrieval, and identify procedures to improve the benefits claims process.

Since 2003, the VA/DOD joint strategic plan (JSP) has served as a roadmap for the JEC and its sub-councils to guide the implementation of the goals and objectives related to sharing data and improving care and benefits administration. The JSP articulates a vision for collaboration, establishes priorities for partnering, launches processes to implement interagency policy decisions, develops joint operation guidelines, and institutes performance monitoring to track the progress in meeting the specific goals and objectives defined in the plan.

Under the leadership of the JEC and the clear goals contained in the JSP, VA/DOD have successfully met JSP health data-sharing milestones in fiscal 2008.

The HEC information management/information technology (IM/IT) work group, co-chaired by the chief information officers (CIOs) of the Military Health System (MHS) and Veterans Health Administration (VHA), maintains day-to-day responsibility for health data-sharing and electronic health record (EHR) interoperability initiatives. The HEC IM/IT work group was established to ensure that appropriate beneficiary and medical data is visible, accessible, and understandable through secure and interoperable information management systems.

The Senior Oversight Committee (SOC), co-chaired by the Deputy Secretary of Defense and the Deputy Secretary of Veterans Affairs directly engages senior military

and civilian officials to ensure interagency collaboration to effectively respond to the recommendations of the various commissions and review groups looking at wounded warrior issues to include: the task force on returning Global War on Terror heroes; the independent review group on rehabilitative care and administrative processes at Walter Reed Army Medical Center and National Naval Medical Center; the President's Commission on Care for America's Returning Wounded Warriors; the DOD task force on mental health; and the Veterans' Disability Benefits Commission. Underneath the SOC, VA/DOD organized several lines of actions (LOA), with one specifically focused on data sharing.

In April 2008, the departments established the VA/DOD interagency program office (IPO) to provide direct operational oversight and management of EHR interoperability initiatives and ensure compliance with jointly coordinated, prioritized, and approved VA/DOD requirements. Additionally, the VA/DOD interagency clinical informatics board (ICIB) was established to enable clinicians to have a direct voice in the prioritization of recommendations for VA/DOD interoperability initiatives. The ICIB is a VA/DOD clinician-led group with the Deputy Assistant Secretary of Defense for Clinical and Program Policy and VHA's Chief Patient Care Services Officer as proponents. The ICIB guides clinical priorities for what electronic health information the departments should share next.

Question 2. Are these structures capable of enforcing the timelines presented in the IIP?

Response. Yes, these structures are capable of ensuring that the items that have been jointly approved, funded, and scheduled are met. The VA/DOD information interoperability plan (IIP) is a "vision" document, not an "execution" document. Not all initiatives described in appendix D of the IIP are approved and funded.

The IIP is a roadmap that the two departments will follow to improve interoperability. It establishes an organizing framework for dialog and strategic direction between the department's senior leadership. As such, the initiatives described in the IIP project an overall direction with incremental targets. It provides a mechanism to guide prioritization discussions and enables technologists to propose potential solutions to incrementally enhance interoperability. Some targets will not have fully defined technical approaches, nor will some be funded. However, the document provides the pathway for facilitating the decisionmaking process to fully define the incremental technical solutions; identify the amount and source of funds required to implement those solutions; and in turn codify them in execution project plans.

Question 3. What mechanisms are available to these groups to enforce the IIP.

Response. The items in the VA/DOD IIP that have been approved and funded are incorporated into the VA/DOD joint strategic plan. The VA/DOD JEC provides the necessary leadership oversight over the Health Executive Council (HEC), Benefits Executive Council (BEC), and all other councils and work groups responsible for the implementation and progress of the VA/DOD joint strategic plan. The scope of these responsibilities includes oversight of joint strategic plan performance measures and associated project timelines. The VA/DOD Interagency Program Office (IPO), established April 17, 2008, provides joint management and oversight for the IIP to help ensure the agencies meet interoperability compliance requirements.

Question 4. Can any of these groups veto the creation or implementation of a non-interoperable or less-than-ideal system in either department.

Response. The JEC is the senior executive managing authority for achieving interoperability. Per the legislative mandate established by Section 1635 of the 2008 National Defense Authorization Act, the IPO was established to provide management oversight of the implementation plan to achieve interoperability. The IPO is organizationally aligned under the umbrella of the JEC.

Question 5. What are the incentives to compliance with the IIP?

Response. The Departments are committed to creating interoperable systems that support the individual business needs of both organizations. This strategy will improve patient care and ensure the seamless transition of military servicemembers from active to veteran status. The IIP is not an execution document for which the departments seek compliance. It is a strategy or blueprint that documents key long term initiatives that will contribute to VA/DOD information interoperability as defined by the clinical and administrative/business functional communities.

Question 6. How many programs or systems currently exist within the DOD for capturing patient health data? Please provide a simple description of these systems.

Response. To be provided by DOD.

Question 7. How many programs or systems currently exist within the VA for capturing patient health data?

Response. Currently, VA uses VistA, which is our hospital information system. VistA consists of more than 100 modules, which are described in the soon-to-be released 2008 VistA monograph, a copy of which will be forwarded to the Committee by November 30, 2008.

Question 8. I am concerned that the more interfaces and systems there are, the higher the potential to for failure and the harder it will be have seamless interoperability. After decades of independent pathways to electronic record keeping, I want to be certain that by allowing these two departments to continue to develop multiple systems we are not setting ourselves up for failure. I would like to know how we are making sure that the mistakes of the past are not repeated.

Response. With respect to implementing Section 1635 of the NDAA and the IIP, VA/DOD have a joint plan to achieve interoperability, and are no longer engaging in unrelated activities for electronic record keeping.

Question 9. I hope that we will soon arrive at the day when a servicemember can grow-up as a dependent in one service, join another service in adulthood, be deployed around the world, stationed across the country, retire, and have a record that he or she can view and that each doctor and facility along the way can have full access to without the involvement of paper records or the requirement of data dumping from one system to another. I believe our servicemembers and veterans deserve this kind of seamless treatment. We must be sure that we are creating a system that does not place a burden on the patient.

Response. This is a goal to which the VA vigorously subscribes. Though a significant amount of work remains in the areas of data standards and terminology, the VA is at the forefront of efforts to accomplish this work. Within the IPP, the initiative to develop the nationwide health information network (NHIN) is targeted as a major step toward achieving this vision. Over time, as standards mature and EHR products implement those standards, the NHIN architecture will provide the framework within which a lifetime record will grow.

Question 10. In this push to force these two huge agencies to work together and achieve parity in the area of electric health records, I am concerned that the “customer,” our veterans, the men and women of our Armed Forces, and all the families that rely on these health care systems might see a reduction in the quality of the service they are provided. What steps are being taken so that our effort to improve services to the “customer” does not do more harm than good?

Response. VA has an extensive quality program that continually monitors the quality of care provided. VA is a leader in the delivery of quality care as exemplified by performance measures and by the results of the customer surveys that are conducted on a continual basis.

VHA established an office that focuses on monitoring the safety of the systems in the health care and in application of usability principles and best practices to future development. The Information Technology Office of Patient Safety works closely with VHA’s National Center for Patient Safety and VA’s Office of Information Technology to ensure the technology that is introduced into health care promotes the safe delivery of care.

Question 11. The ability to utilize non-military providers is especially important for veterans (who live far away from VA facilities), servicemembers with special needs children (who need expert care only available in the private sector), and servicemembers stationed more than 50 miles from treatment facilities (who are required to rely on the private sector). Secure portals that allow private doctors who accept TRICARE to access the VA/DOD health records system is essential for ensuring that our servicemembers, their families, and our veterans have the highest quality of care possible. Please explain the departments’ efforts to achieve interoperability with the private sector.

Response. As part of the NHIN, VA/DOD are pursuing the ability of a servicemember or veteran to authorize the release of a standards-based “summary of care” electronic document to the provider/system of his or her choice. When privacy and security protections are in place within VA, it will be on the My HealtheVet personal health record web portal and the veteran will be able to elect to “send” the document to another personal health record. The veteran will also have the ability to authorize family, friends, providers, and advocates access to as little or much VA health and benefits information through the delegation feature. By becoming early participants in the NHIN, VA/DOD hopes to achieve interoperability with private sector providers. VA/DOD are working on ways to make data available from both electronic health records and personal health records as a standard document. It will also expect a return of data from private networks in standard.

Chairman AKAKA. Aloha and thank you so much for the presentation from your team.

Let me call on Senator Wicker, who is here, for any statement or questions.

**STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI**

Senator WICKER. I will waive an opening statement in lieu of listening to the testimony.

Chairman AKAKA. Thank you, Senator Wicker.

Let me call on Dr. Casscells for your presentation.

STATEMENT OF S. WARD CASSCELLS, M.D., ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS, U.S. DEPARTMENT OF DEFENSE; ACCOMPANIED BY CHARLES CAMPBELL, CHIEF INFORMATION OFFICER, MILITARY HEALTH SYSTEM, U.S. DEPARTMENT OF DEFENSE

Dr. CASSCELLS. Mr. Chairman, Senator Burr, and Senator Wicker, thank you again for this opportunity to represent the Defense Department specifically in the capacity as Assistant Secretary of Defense for Health Affairs with our Chief Information Officer, Charles Campbell, to my right.

Sir, I would like to ask that my written statement be submitted for the record—

Chairman AKAKA. Without objection, it will be included.

Dr. CASSCELLS [continuing]. And I would like to just speak informally, if I may, and first say that we take no exception, no disagreement with the GAO testimony and certainly are appreciative of Dr. Kussman and Dr. Fletcher's testimony and demonstration.

I also want to acknowledge, sir, your term "glacial." It is, in fact, an apt term for something that really began in 2001 and could have proceeded faster than it has. I think it is also worth acknowledging that Congressional guidance to the Veterans Department and the Department of Defense have been instrumental in getting us to work more closely together, and having been forced to do so, we found out we like it. In fact, Dr. Kussman and I spent almost all of yesterday together and now all of this morning. We have actually learned, I would have to say, more from the VA than they have from us, and that should also be acknowledged.

But, we are in catch-up mode. We had lost our way a bit. We have, perhaps, too long been inclined to go with what the big contractors recommend, and more recently, we have empowered our clinicians, our practicing doctors, to take a more active role, and that is the Joint Clinical Integration Board that we have put together with the VA starting last May.

In addition, sir, we have had tremendous guidance from HHS. The AHIC (American Health Information Community), has really taken the lead in setting these standards, including standards of interoperability that you asked about earlier of GAO and of Dr. Kussman. And indeed, the analogy, I think, is very apt that it doesn't matter whether my e-mail is AOL and yours is Gmail. We can still communicate using standards. But, as you well can imagine, it is more complicated than that.

People frequently say to me, and they said it very loudly in a town hall that we had on our website a few months back, why don't you just yank the system and replace it with this commercial system or that one? And my response is, you know, I am as frustrated sometimes with AHLTA as a military doctor, an Army Reserve doctor, and as a military patient. And I have worked with the systems at Harvard where I trained, and the University of Texas, and demo-ed the systems at the Cleveland Clinic, at Kaiser Permanente, and Mayo. And indeed, some of these commercial systems are simpler to use and simpler to learn.

But, as you can imagine, we have unique requirements related to the war zones and related to the frequency and ferocity of the cyber security attacks on our system. So, our requirements are more demanding even than those of the average, say, Cleveland Clinic patient, for example. So, this has been a challenge for us.

One of the things we have done is to recognize that the popularity of the CPRS VistA System used by the VA is a function of two things: first, the fact that the doctors were involved early on in the design; and, second, the graphical user interface—the way you look at it and can navigate it—is more intuitive. Mr. Campbell has now made it a priority to make AHLTA look like the CPRS VistA System. It has been very popular with the VA doctors.

Another issue that I think is terribly important is that he is developing for the first time the watchdog capabilities to really hold our contractors as accountable as the soldiers, the sailors, the Marines, the taxpayers deserve. When you build an enormous enterprise and you have basically only one or two bidders, it becomes difficult to hold them to account in some ways. As a consequence, I want to applaud what Mr. Campbell has done in getting outside opinions, outside contractors to assess, with no possibility of their competing for the other business, how we are doing. So, like the GAO contract, having an independent contractor assess our work with the VA has been very helpful.

And to my surprise, they did not come back and say, yank the whole system and replace it with a commercial system. They said, frankly, that is a bit dangerous to do that and it would be actually more billions in the end. So, the recommendation has been to continually upgrade these systems, both of which have, frankly, antiquated infrastructure and software basis—what I call convergent evolution—to grow them toward common standards, again, consistent with the Health and Human Services standards, which will be applicable in the private sector, as Senator Burr alluded to.

So, this is our direction, sir. We recognize that an electronic health system will be legible, secure, and must be private. It must fail rarely, if ever. Ideally, it should be easy to learn and easy to use.

We are getting there. We are not there. I used it this morning as a practicing doctor; and I actually had a visit with my doctor today, so I was on the other end of AHLTA, as a patient. I was pleased in asking my doctor, could you see my records from theater? He said, "Yes, I see you twisted your ankle in Iraq and you also had an operation on your elbow." I said, thank heaven. I need to be able to say that today in my testimony.

[Laughter.]

Dr. CASSCELLS. Because 2 years ago, sir, when I came back from Iraq as a doctor-soldier, my records did not come back with me. We used to load patients into the C-17s and give them a CD-ROM and paper copies of their chart, and we would roll them over on their side and put the chart under their hip. We would often write on the cast with a magic marker what had actually been done. These days are behind us now. Patients' electronic records are preceding the patient to Landstuhl. They are viewable from the VA. I can see my own records as a patient in Iraq.

With the acknowledgement that it has been glacial, sir, I would submit that we are making progress; and I do believe over the next 5 years that we will have such a totally different system that we won't even use the same name. I also would like to commit that by the end of next September—a year and a week from now—the deadline of the NDAA 2008, we will be fully interoperable in every sense that is important to the practicing doctor and to the patient.

Sir, with that, I would like to thank you again for this opportunity to tell you about our progress and look forward to your questions and guidance.

[The prepared statement of Dr. Casscells follows:]

PREPARED STATEMENT OF DR. S. WARD CASSCELLS, ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS) AND MR. CHARLES CAMPBELL, MILITARY HEALTH SYSTEM, CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF DEFENSE

INTRODUCTION

Mr. Chairman and members of this distinguished committee, thank you for this opportunity to discuss the sharing of electronic health care information between the Department of Defense (DOD) and Department of Veterans Affairs (VA). We continue to make great strides in sharing electronic health care information—and have plans to do even more in the near future.

Cooperation between DOD and VA in the area of health care information sharing is vital for effective management and efficient delivery of programs and benefits that our Nation's Veterans and Servicemembers deserve. DOD recognizes Congressional concerns regarding the time it has taken the two Departments to establish the current level of interoperability. Let me assure you that DOD and VA share the ultimate goals of this and other Congressional bodies seeking to address the needs of the Nation's heroes. We have been working together in earnest and have made significant progress in sharing electronic health care information since our first efforts in 2001. Today, I would like to provide a historical overview of our joint efforts, outline some of the initiatives that form the foundation for sharing efforts moving forward, offer some details regarding the draft DOD/VA Information Interoperability Plan, and discuss some other steps we have taken to accelerate initiatives to lead us to "full interoperability of personal health care information" by September 30, 2009, as mandated in section 1635 of the National Defense Authorization Act for Fiscal Year 2008.

HISTORICAL OVERVIEW

DOD and VA began laying the foundation for interoperability in 2001 when our Departments first shared health care information electronically, and we have continually enhanced and expanded the types of information we share as well as the ways in which we share. At times it has not been an easy road, and there is always room for improvement in an effort as large and as crucial as this one. Nonetheless, DOD and VA have come a long way in the areas of health information technology, interoperability standards, and health care information sharing. By working together at the top levels of DOD and VA, we have established policies that enable each Department to address its unique requirements while also addressing requirements that we share. We have now taken this coordination and cooperation to new levels with oversight and governing bodies formed to ensure that our sharing efforts continue to move in the right direction at a pace that meets and, we hope, exceeds the expectations and needs of all our stakeholders.

THE FOUNDATION FOR INTEROPERABILITY

The foundation of current and future health care information sharing includes initiatives that have enhanced continuity of care for our patients, enabled our providers at the point of care to view health care information originating in the other Department's electronic health record, and even provided real-time safety checks and alerts at some sites.

Continuity of Care for Shared Patients

For patients treated at both VA and DOD facilities, providers can view electronic health data from both Departments. The Departments anticipate the addition of family history and social history by the end of fiscal year 2008, all "essential" health data, as determined by a team of DOD and VA health care providers, will be immediately viewable by clinicians, at a DOD or VA facility as called for by the President's Commission on Care for America's Returning Wounded Warriors. Health data accessible by DOD and VA providers includes allergy information, outpatient medications, inpatient and outpatient laboratory results, radiology reports, demographic details, clinical notes, procedures, problem lists, and vital signs. In addition to those typical bits of health care information, DOD and VA exchange Pre- and Post-Deployment Health Assessments and Post-Deployment Health Reassessments as well as vital clinical data captured in the Theater of operations. Health care information from Theater includes inpatient notes, outpatient encounters, and ancillary clinical data, such as pharmacy data, allergies, laboratory results, and radiology reports. Exchanging this Theater clinical information is a significant accomplishment in our efforts to enhance continuity of care for Servicemembers returning from Iraq, Afghanistan, Kuwait, and other forward locations.

DOD also now has an inpatient documentation system in use at 20 of its inpatient facilities, accounting for more than half of our inpatient beds, with plans to expand use of the current system to additional facilities in the next year. This capability is now in place at Landstuhl Regional Medical Center, which, as the primary receiving location for patients coming out of Theater, is a critical link in the electronic health care information chain.

Drug-Drug and Drug-Allergy Interaction Checking

Beyond having viewable data available, DOD and VA are also exchanging some data at the highest, most complex level of interoperability. Outpatient pharmacy and drug allergy data are now available in a standardized format for patients receiving treatment from both DOD and VA. This standardization enables our information systems to run vital safety checks. Drug-drug interaction and drug-allergy checks can now be run using data from both Departments, further enhancing patient safety. Currently, this capability is operational in the following seven locations:

- William Beaumont Army Medical Center/El Paso VA Health Care System;
- Eisenhower Army Medical Center/Augusta VA Medical Center;
- Naval Hospital Pensacola/VA Gulf Coast Health Care System;
- Madigan Army Medical Center/VA Puget Sound Health Care System;
- Naval Health Clinic Great Lakes/North Chicago VA Medical Center;
- Naval Hospital San Diego/VA San Diego Health Care System; and
- Mike O'Callaghan Federal Hospital/VA Southern Nevada Health Care System.

For this capability to work properly, the individual must have a record in the Defense Manpower Data Center/Defense Enrollment and Eligibility Reporting System (DEERS). More than 6 million veterans, primarily those who separated from Service prior to the establishment of DEERS, were added to the DEERS database this year. With that completed, DOD sent instructions that allow any DOD site to now utilize this capability of drug-drug and drug-allergy interaction checking. In addition, all DOD and VA facilities—not just those listed above—have access to the shared DOD and VA pharmacy and allergy data for a patient if that patient should present to their facility for care. To further expand the use of this functionality, DOD will begin implementation of an automated process for identifying patients receiving care at both DOD and VA so manual intervention for this level of data exchange is no longer necessary.

Continuity of Care for Polytrauma Patients (Wounded Warriors)

In response to the urgent need for VA providers at Polytrauma Centers to have as much information as possible on inpatients transferring to their care, DOD sends electronic health care information directly to the Polytrauma Centers. When providers determine that a severely wounded, injured, or ill patient should be transferred to a VA Polytrauma Center for care, DOD sends radiology images and scanned paper medical records electronically to the receiving facility. This effort

began in March 2007 with a pilot project, sharing information from one DOD facility to one VA Polytrauma Center, and quickly expanded to include the three primary DOD facilities treating incoming severely wounded warriors—Walter Reed Army Medical Center, National Naval Medical Center, and Brooke Army Medical Center—and the four level 1 VA Polytrauma Centers—Tampa, Richmond, Palo Alto, and Minneapolis.

Separated Service Members (Potential VA Patients)

More than 4 million former Servicemembers eligible for VA health care now have electronic health care information accessible to their new provider should they seek care at a VA facility. In 2001, DOD transmitted electronic health care information for Servicemembers who had separated since 1989. Monthly transfers of health care information for newly separated Servicemembers began in 2002 and continue today. Historical electronic health care information available to VA providers includes the following data elements:

- Outpatient pharmacy data, laboratory and radiology results;
- Inpatient laboratory and radiology results;
- Allergy data;
- Consult reports;
- Admission, disposition, transfer data;
- Standard ambulatory data record elements (including diagnosis and treating physician);
- Pre- and post-deployment health assessments; and
- Post-deployment health reassessments.

When the former Servicemember presents to VA for care or evaluation, the VA provider can access this information from within the VA electronic health record.

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2008

DOD and VA have worked hard to implement, enhance, and expand health care information sharing initiatives to support all of our beneficiaries since we first started sharing data in 2001. In the past couple of years, with evolving needs and technological advances, we have accelerated our collaborative efforts. Although DOD and VA both want to do whatever necessary to provide our beneficiaries with the best possible care, our Departments and our beneficiaries have benefited from much-needed Congressional guidance and direction. We are grateful for your devotion to our beneficiaries, the Nation's heroes, and your assistance in helping us find ways to enhance the care we can offer them. To that end, the National Defense Authorization Act for Fiscal Year 2008 has set a timeframe for reaching the goal of full information interoperability. The Act specifically calls for the establishment of a DOD/VA Interagency Program Office whose function "shall be to implement, by not later than September 30, 2009, electronic health record systems or capabilities that allow for full interoperability of personal health care information." To meet this deadline, DOD and VA have taken a number of key steps that will help us further accelerate our efforts to achieve interoperability, including drafting an Information Interoperability Plan.

DOD/VA INFORMATION INTEROPERABILITY PLAN

The DOD/VA Information Interoperability Plan serves as the strategic organizing framework for current and future information technology projects and information needs. The purpose of the Information Interoperability Plan is to guide DOD and VA leadership, policymakers, and information management and technology personnel in achieving the shared vision for DOD and VA health, personnel, and benefits information interoperability. The Plan discusses issues and opportunities for interoperability: what it involves, why we should care about it, and how it can be achieved. It explains the benefits for stakeholders; identifies the main issues that lie on the road to achievement; and provides an initiative-focused, problem-oriented, phased implementation schedule, though not all initiatives described in the Plan are funded. The Information Interoperability Plan specifically seeks to accomplish the following objectives:

- Define VA and DOD strategic interoperability maturation and organizing framework;
- Map the current and future health, administrative, and benefit information sharing through a problem-oriented approach to establish an interoperability road-map;
- Identify information capability gaps to guide future investment portfolio decisions and prioritization of initiatives and influence information technology design solutions;

- Set milestones to measure progress of near-, mid-, and long-term interoperability goals; and
- Leverage the national standardization activities led by the Department of Health and Human Services to foster health care information sharing with the private sector.

To realize our shared vision of information interoperability, the two Departments will leverage our current, robust information sharing programs and infrastructure to close remaining gaps in information coverage. We will expand upon existing initiatives and incrementally implement greater capabilities as determined by the health, benefits, and personnel communities and as technology advances. Wherever possible, our solutions will leverage harmonized interoperability standards recognized by the Secretary of Health and Human Services in an effort to ensure we do not create a sharing solution that will work between the DOD and VA but not with our private sector partners and other Federal agencies. The initiatives outlined in the Plan address the following constraints relating to the implementation of interoperable systems between DOD and VA:

- Incompatible legacy computing and communications infrastructure.
- Lack of a robust, joint architecture facilitating interagency data sharing;
- Existing data in unstructured formats difficult to discover and access;
- Undefined standards and maturing standards that are neither implemented nor robust;
- Large amounts of existing data with limited documentation and non-standardized access mechanisms;
- Workforce insufficiently trained regarding available information;
- Shared information often not effectively integrated into the workflow of clinicians and administrators;
- Different levels of policy and governance that vary based on organizational culture;
- Resource availability, both manpower and dollars;
- Contracting and acquisition policies and vehicles; and
- Industry and market place divergence.

In establishing this first version of the Information Interoperability Plan, the two Departments agreed to goals that fall in four main categories: continuity of care, benefits, infrastructure, and population health and research. Each of the 23 interoperability initiatives detailed in the Plan aligns with one of these four categories as shown in the following table.

Initiatives to Achieve Our Shared Vision
Image Sharing Inpatient Electronic Health Information Reserve Component Access to Electronic Health Information Enhancements to Health Information Exchange between Clinical Information Systems Clinical Case Management Psychological Health Treatment and Care Records Immunizations Records and History Integrated Personal Health Data with Patient Self-Assessment Nationwide Health Information Network Personalized Health care (Family History) Interagency Program Office Integration of Interagency Data Sharing into DOD and VA architectures Trusted Partnership and Communication Infrastructure Exposure History (Environmental and Occupational Hazards) Data marts to support Clinical Research, Quality, and Population Health Management Knowledge sharing for Psychological Health and Traumatic Brain Injury e-Benefits Portal Disability Evaluation System Non-Clinical Case Management Pay Systems Enhancements Identity Management Federal Health Center Information Technology Support

The DOD/VA Information Interoperability Plan is an implementation roadmap of potential phased initiatives that will help the Departments achieve a shared vision.

The success of this roadmap will depend on many factors and will require collaboration at all levels of both Departments. The Plan is only the first step in the process. As we move forward, the continuing diligence of governing bodies and the functional and technical communities will be vital to identifying and bridging all information gaps.

MEETING THE INTEROPERABILITY DEADLINE

Drafting the DOD/VA Information Interoperability Plan is one of several recent steps the Departments have taken to meet the deadline set forth in the National Defense Authorization Act for Fiscal Year 2008. Other steps designed to accelerate sharing efforts include establishing the DOD/VA Interagency Program Office and the DOD/VA Joint Clinical Information Board.

Interagency Program Office

The Interagency Program Office was established in April 2008 to “act as a single point of accountability” for cross-organizational coordination and collaboration to support health, personnel, and benefits data sharing. This office will report progress to the DOD/VA Joint Executive Council and incorporate key milestones into the DOD/VA Joint Strategic Plan. The Interagency Program Office will be responsible for management and oversight but will not be the technical execution organization. It will help resolve conflicts in the DOD and VA sharing requirements for health, personnel, and benefits functional communities; ensure DOD and VA schedules are coordinated for technical execution of initiatives; assist in coordinating funding considerations; obtain input and concurrence of other DOD and VA stakeholders; and report to Congress on progress and plans. Technical execution remains in the appropriate DOD and VA offices using the established Departmental statutory and regulatory processes for acquisition, funding, management control, information assurance, and other execution actions, which are significantly different for each Department.

Joint Clinical Information Board

The Joint Clinical Information Board enables clinicians to have a direct voice in the prioritization of recommendations for DOD/VA interoperability initiatives. The Deputy Assistant Secretary of Defense for Clinical and Program Policy and the Chief Patient Care Services Officer, Veterans Health Administration, serve as the lead functional proponents. The Board guides clinical priorities for what electronic health care information the Departments should share next and reviews planned clinical information system solutions for DOD/VA sharing to ensure alignment to clinical sharing priorities as defined by the Board. To support efforts to meet the September 2009 deadline, the Joint Clinical Information Board submitted recommendations to the Interagency Program Office and DOD/VA Health Executive Council Information Management/Information Technology Work Group in July 2008. The Board will refine and prioritize new requirements to ensure continued improvements in DOD/VA electronic health data sharing in a manner that supports clinicians in health care delivery.

CONCLUSION

The initial movement toward interoperability was a struggle. In the past several years, however, the efforts of DOD and VA to share health care information have gained undeniable momentum. We continue to build on this momentum and a solid foundation of sharing initiatives as we move toward next September and the goal of full interoperability of health care information and beyond. The journey has been long and arduous and will not end when we achieve interoperability. Rather, our journey will continue as DOD and VA strive to enhance the care we provide for all of our beneficiaries.

As always, we appreciate the insights, recommendations, and guidance of this Congressional committee. We are all working toward the same end—to provide the highest quality care for our Nation’s heroes, past and present—and we need to work together to achieve our goals as efficiently and effectively as possible.

Thank you again for allowing us the opportunity to appear before you and testify about DOD/VA electronic health care information sharing achievements, goals, and plans.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. DANIEL K. AKAKA TO DR. S. WARD CASSCELLS, ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS, U.S. DEPARTMENT OF DEFENSE

Question 1. Doctors Kussman and Casscells, I understand that currently 65 percent of the care provided by DOD and 40 percent of the care provided by VA is purchased from the private sector. Only 9 percent of the physicians in private outpatient practice use electronic medical records. How will you overcome this reality and ensure the medical information from this care is included in the service-members/veterans electronic health record?

Response. DOD fully supports efforts to exchange health information with the private sector to ensure medical information is included in the Servicemember's longitudinal health record. In fiscal year 2009, DOD will provide an image scanning capability to enable DOD to scan information from the Managed Care Support Contractors (MCSCs), such as a Specialty Care Consultants, so it is available to DOD providers. The private sector continues to mature in its use of electronic documentation and DOD is committed to private sector health information exchange coordinated through the Office of the National Coordinator (ONC), Health and Human Services (HHS). Specifically, DOD, VA, and the ONC are active partners with other Federal agencies and private health care organizations deploying and expanding HHS's National Health Information Network (NHIN). The NHIN private health care participants currently include over 20 organizations geographically located across the continental United States. Utilizing nationally recognized standards, DOD and VA recently successfully tested the exchange of health records with these entities and between each other. DOD plans on using the NHIN as the communication device with our MCSCs in future years.

Question 2. Doctors Kussman and Casscells, I believe we all can agree that VA currently has a world class inpatient electronic health records system. My question for the both of you is, what impact would the development of a new joint DOD and VA inpatient health records system have on VA's current system?

Response. The DOD defers to the VA regarding this question.

Question 3. Doctors Kussman and Casscells, as a result of merging the Great Lakes Naval Hospital and the North Chicago VA Medical Center in 2010, the number of shared DOD and VA patients will increase roughly fivefold from 18,000 to 100,000. Isn't this the real test of DOD/VA interoperability? And how are we doing to ensure that it works?

Response. We do not anticipate the increase in shared patients to be an issue. The DOD and VA have teamed on information sharing initiatives since 2000 and currently share a significant amount of health information today. However, the North Chicago Federal Health Care Center (FHCC) initiative is very different from previous DOD/VA sharing efforts due to the challenges of addressing local information sharing requirements as a combined facility treating both DOD and VA beneficiaries. To ensure success, DOD/VA will continue to work with local and enterprise teams to address the highest priority needs and ensure FHCC is successful.

Question 4. Dr. Casscells, I understand from recent news reports that DOD is actively pursuing alternatives to its current electronic health records system. Will the problems you have identified with DOD's current electronic health record system affect DOD and VA's ability to share data in the near- or long-term?

Response. DOD is pursuing enhancements to AHLTA, not replacement of AHLTA. DOD does not anticipate upcoming AHLTA-related enhancements will adversely impact DOD/VA information interoperability goals and objectives. We anticipate that the proposed architecture and usability improvements will continue to support DOD/VA sharing initiatives. The Department fully recognizes the importance of DOD/VA electronic health information sharing and is including these requirements in the AHLTA improvement and modernization efforts.

Question 5. Doctors Kussman and Casscells, I understand electronic health records for Reserve soldiers are less than complete. How do we address the issue of establishing a comprehensive electronic health record for these part-time soldiers?

Response. The health care provided to the Reserve/Guard when they are deployed with the active duty forces are documented in AHLTA. If the Reserve/Guard soldier receives care in the Department of Veterans Affairs (VA) post-deployment, the Department of Defense (DOD) is able to access that data. For care received in the private sector, in fiscal year 2009, DOD will provide an image scanning capability to enable DOD to scan information from the Managed Care Support Contractors (MCSCs), such as Specialty Care Consultants, so it is available to DOD providers. DOD, VA, and the Office of the National Coordinator (ONC), Health and Human Services (HHS), are active partners with other Federal agencies and private health

care organizations deploying and expanding HHS's National Health Information Network (NHIN). The NHIN private health care participants currently include over 20 organizations geographically located across the continental United States. Utilizing nationally recognized standards, DOD and VA recently successfully tested the exchange of health records with these entities and between each other. DOD plans on using the NHIN as the communication device with our MCSCs in future years.

Question 6. Dr. Casscells, I have been told that DOD has objected strongly to language in the 2009 Defense Authorization bill that would require the Departments to be interoperable with their transaction partners. I understand this to mean that the DOD and VA electronic health record systems must maintain the flexibility to achieve interoperability with other government agencies and private care providers in the future. Please discuss your position on the importance of future interoperability with potential transaction partners.

Response. The DOD fully supports interoperability with other Federal agencies and our transaction partners. The Department is firmly committed to working with the Department of Health and Human Services (HHS) through the Office of the National Coordinator (ONC) to actively collaborate on and advance the development, adoption, and implementation of health information technology and standards. The Department continues to actively support the efforts of the ONC. The Department representatives contribute to ONC's Health Information Technology Policy Council, Federal Health Architecture Managing and Lead Partners Council and Leadership Council, and Health Information Technology Standards Panel initiatives.

Currently, DOD is engaged in several initiatives to explore alternative solutions to electronic information sharing with transaction partners. DOD and Microsoft are exploring the use of the Health Vault application as one possible solution that would allow those who receive care via contract providers to store and organize their health information and then share that information with trusted entities such as physicians and hospitals. Pilot studies are underway in Pensacola, Florida and Spartanburg, South Carolina and as part of the National Health Information Network Trial Implementation to examine the feasibility of sharing clinical data from DOD medical facilities with non-Federal partners.

Question 7. Dr. Casscells, I understand from recent news reports that DOD is actively pursuing alternatives to its current electronic health records system. Will the problems you have identified with DOD's current electronic health record system affect DOD and VA's ability to share data in the near- or long-term?

Response. DOD is pursuing enhancements to AHLTA, not replacement of AHLTA. DOD does not anticipate upcoming AHLTA-related enhancements will adversely impact DOD/VA information interoperability goals and objectives. We anticipate that the proposed architecture and usability improvements will continue to support DOD/VA sharing initiatives. The Department fully recognizes the importance of DOD/VA electronic health information sharing and is including these requirements in the AHLTA improvement and modernization efforts.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. PATTY MURRAY TO DR. S. WARD CASSCELLS, ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS, U.S. DEPARTMENT OF DEFENSE

Question 8. If access control alone will not insure the security of the core database information, what steps have been taken by the VA to protect the integrity of the core information once it has been accessed?

Response. The Department of Defense defers to the VA regarding the answer to this question.

Question 9. Has the VA considered augmenting the encryption access with stand-alone security within the database that would force compliance with policy and procedures as a self governing action embedded into the very content that is being protected?

Response. The Department of Defense defers to the VA regarding the response to this question.

Question 10. Would the VA consider the combination of Encryption and "self governing content" to create a total security protocol?

Response. The Department of Defense defers to the VA regarding the response to this question.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO DR. S. WARD CASSCELLS, ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS, U.S. DEPARTMENT OF DEFENSE

Question 11. Please provide for the committee an overview of the decisionmaking and governance structure currently employed by and scheduled to be used by the departments with regard to health information technology.

Response. The Department of Defense (DOD) and Department of Veterans Affairs (VA) health information technology initiatives are jointly governed at the highest levels of the Departments. The DOD/VA Joint Executive Council (JEC), co-chaired by the Under Secretary of Defense for Personnel and Readiness and the Deputy Secretary of VA, is comprised of senior leaders from DOD and VA. The JEC was chartered to enhance VA and DOD information sharing and collaboration activities, to ensure the efficient use of Federal services and resources, and to identify opportunities such as policy, operations, and capital planning to advance seamless transition initiatives. The JEC provides leadership oversight of the Health Executive Council (HEC) and Benefits Executive Council (BEC), and all other councils or work groups designated by the co-chairs. Through a joint strategic planning process, the JEC makes recommendations to the Secretaries regarding the strategic direction for the joint coordination and sharing efforts between the agencies and oversees the implementation and progress of those efforts through the DOD/VA Joint Strategic Plan (JSP).

The DOD/VA HEC (HEC), co-chaired by the Assistant Secretary of Defense for Health Affairs and VA Under Secretary for Health, was created to establish a high-level program of interagency cooperation and coordination in a joint effort to improve health care and reduce costs for DOD and VA beneficiaries. The HEC is responsible for identifying changes in health care-related policies, procedures, and practices and assessing further opportunities for the coordination and sharing of health-related services and resources.

The DOD/VA BEC is co-chaired by the DOD's Principal Deputy Under Secretary of Defense for Personnel and Readiness and VA's Under Secretary for Benefits. The BEC collaborates on initiatives to expand and improve information sharing, refine the process of records retrieval, and identify procedures to improve the benefits claims process.

Since 2003, the VA/DOD JSP has served as a roadmap for the JEC and its sub-councils to guide the implementation of the goals and objectives related to sharing data and improving care and benefits administration for beneficiaries. The JSP articulates a vision for collaboration, establishes priorities for partnering, launches processes to implement interagency policy decisions, develops joint operation guidelines, and institutes performance monitoring to track the Departments' progress in meeting the specific goals and objectives defined in the plan.

Under the leadership of the JEC and the clear goals contained in the JSP, DOD, and VA have realized success in meeting JSP health data sharing milestones in fiscal year 2008.

The HEC Information Management/Information Technology (IM/IT) Work Group, co-chaired by the Chief Information Officers (CIOs) of the Military Health System and Veterans Health Administration, maintains day-to-day responsibility for health data sharing and electronic health record interoperability initiatives. The HEC IM/IT Work Group was established to ensure that appropriate beneficiary and medical data is visible, accessible, and understandable through secure and interoperable information management systems.

The Wounded, Ill, and Injured Senior Oversight Committee (SOC), co-chaired by the Deputy Secretary of Defense and the Deputy Secretary of Veterans Affairs, directly engages senior military and civilian officials to ensure interagency collaboration to effectively respond to the recommendations of the various commissions and review groups looking at wounded warrior issues to include: the Task Force on Returning Global War on Terror Heroes; the Independent Review Group on Rehabilitative Care and Administrative Processes at Walter Reed Army Medical Center and National Naval Medical Center; the President's Commission on Care for America's Returning Wounded Warriors; the DOD Task Force on Mental Health; and the Veterans' Disability Benefits Commission. Underneath the SOC, DOD and VA organized several Lines of Actions, with one specifically focused on data sharing.

In April 2008, the Departments established the DOD/VA Interagency Program Office to provide direct operational oversight and management of electronic health record interoperability initiatives and ensure compliance with jointly coordinated, prioritized, and approved DOD/VA requirements. Additionally, the DOD/VA Interagency Clinical Informatics Board (ICIB) was established to enable clinicians to have a direct voice in the prioritization of recommendations for DOD/VA interoper-

ability initiatives. The ICIB is a DOD/VA clinician-led group with the Deputy Assistant Secretary of Defense for Clinical and Program Policy and the Veterans Health Administration's Chief Patient Care Services Officer as proponents. The ICIB guides clinical priorities for what electronic health information the Departments should share next.

Question 12. Are these structures capable of enforcing the timelines presented in the IIP?

Response. Yes, these structures are capable of ensuring the items that have been jointly approved, funded, and schedules are met. The Department of Defense (DOD) and Department of Veterans Affairs (VA) IIP is a "vision" document, not an "execution" document. Not all initiatives described in Appendix D of the IIP are approved and funded.

The IIP is not an execution plan, but rather, a roadmap that the two Departments will follow to improve interoperability. It establishes an organizing framework for dialog and strategic direction between the Departments' senior leadership. As such, the initiatives described in the IIP project an overall direction with incremental targets. It provides a mechanism to guide prioritization discussions and enables technologists to propose potential solutions to incrementally enhance interoperability. Some targets will not have fully defined technical approaches, nor will some be funded. However, the document provides the pathway for facilitating the decision-making process to fully define the incremental technical solutions; identify the amount and source of funds required to implement those solutions; and, in turn, codify them in execution of project plans.

Question 13. What mechanisms are available to these groups to enforce the IIP?

Response. The items in the Department of Defense (DOD) and Department of Veterans Affairs (VA) IIP that have been approved and funded are incorporated into the DOD/VA Joint Strategic Plan. The DOD/VA Joint Executive Council provides the necessary leadership oversight over the Health Executive Council, Benefits Executive Council, and all other councils and work groups responsible for the implementation and progress of the DOD/VA Joint Strategic Plan (JSP). The scope of these responsibilities includes oversight of JSP performance measures and associated project timelines. The DOD/VA Interagency Program Office, established April 17, 2008, provides joint management and oversight for the IIP to help ensure the agencies meet interoperability compliance requirements.

Question 14. Can any of these groups veto the creation or implementation of a non-interoperable or less-than-ideal system in either department?

Response. The Department of Defense (DOD) and Department of Veterans Affairs (VA) senior leadership and supporting councils and work groups are charged with the responsibility and authority to ensure compliance with DOD/VA information sharing policies and guidance, plans, and agreements to improve health care benefits and services. Based on the established governance structure, multiple levels of oversight have been put in place to ensure the development and implementation of interoperable health care information sharing capabilities.

The DOD/VA Interagency Clinical Informatics Board (ICIB), established in May 2008, ensures clinicians have a direct voice in the prioritization of recommendations for DOD/VA interoperability initiatives. The ICIB is responsible for identifying the essential health information that will be shared between the DOD/VA and reviewing all joint clinical information system solutions prior to development to ensure alignment with clinical information sharing priorities.

These governance, oversight, and management mechanisms will help to ensure compliance with joint interoperability requirements.

Question 15. What are the incentives to compliance with the IIP?

Response. The Department of Defense (DOD) and Department of Veterans Affairs (VA) are fully committed to continuing efforts to improve and expand information sharing capabilities to enhance health care delivery and continuity of care for shared patients. The DOD/VA Joint Executive Council Strategic Plan provides the necessary strategic goals, objectives, strategies, and their corresponding performance measures that will help ensure the Departments meet DOD/VA electronic data sharing requirements, including those from the DOD/VA IIP that have been approved and funded.

The DOD/VA Interagency Program Office, which was established on April 17, 2008, provides joint management and oversight for the IIP to help ensure the agencies continue to focus on further enhancing electronic data sharing to meet the requirements of the Departments.

The DOD/VA Interagency Clinical Informatics Board (ICIB), established in May 2008, ensures clinicians have a direct voice in the prioritization of recommendations for DOD/VA health interoperability initiatives. The ICIB is responsible for identi-

fyng and prioritizing the essential health information that will be shared between DOD/VA.

Question 16. How many programs or systems currently exist within the DOD for capturing patient health data? Please provide a simple description of these systems.

Response. The DOD provides three key capabilities, AHLTA, AHLTA-Theater (AHLTA-T), and Essentris, to capture outpatient and inpatient health care information.

AHLTA is the military's electronic health record (EHR), an enterprise-wide medical and dental clinical information system. AHLTA generates, maintains, stores, and provides secure online access to comprehensive patient records. This EHR began worldwide deployment in January 2004 and is becoming a key enabler to military medical readiness. It supports uniform, high-quality health promotion and health care delivery to more than 9.2 million Military Health System (MHS) beneficiaries. In response to health care provider feedback, the MHS is upgrading AHLTA to improve the clinical encounter documentation process and provide user-requested functional capabilities. Several of these enhancements are designed to improve health care provider workflow processes and minimize the time required to document clinical encounters.

AHLTA-T, which is operational in Iraq, Kuwait, and Afghanistan, collects and transfers inpatient and outpatient encounters to the Theater Medical Data Store. Outpatient encounters are then transferred to the AHLTA Clinical Data Repository for use in AHLTA worldwide, 24 hours a day, 7 days a week. AHLTA-T also provides DOD and the Department of Veterans Affairs (VA) with online access to inpatient and outpatient theater medical information.

Essentris, DOD's inpatient documentation capability, is operational at 18 medical treatment facilities representing 47 percent of DOD's inpatient workload. Fiscal year (FY) 2009 plans target expanding to 80 percent of DOD's inpatient workload. Currently, discharge summary data is shared with the VA. Additional inpatient data has also been made available to VA. In fiscal year 2009, VA will expand their ability to see this data at their facilities. DOD and VA recently completed a study to determine prioritized recommendations and potential technical solutions for inpatient EHRs. These efforts have been extended through December 2008 to support development of a DOD/VA inpatient EHR concept of operations, common services framework, and action plan.

Question 17. How many programs or systems currently exist within the VA for capturing patient health data?

Response. The Department of Defense respectfully defers to the VA regarding the response to this question.

Question 18. I am concerned that the more interfaces and systems there are, the higher the potential to for failure and the harder it will be have seamless interoperability. After decades of independent pathways to electronic record keeping, I want to be certain that by allowing these two departments to continue to develop multiple systems we are not setting ourselves up for failure. I would like to know how we are making sure that the mistakes of the past are not repeated.

Response. Over the past few years, the Department of Defense (DOD) and Department of Veterans Affairs (VA) have made significant progress in sharing electronic health care information. DOD/VA senior leadership, governance structures, and supporting councils and workgroups are fully committed to providing secure, reliable, and interoperable information sharing capabilities to enhance health care delivery and continuity of care for shared patients. The current DOD/VA electronic medical records, usage of these records, and health information exchange capabilities function around the globe and are well ahead of those of the private sector, enabling the exchange of legible, accurate, and relevant electronic health information when and where needed.

Question 19. I hope that we will soon arrive at the day when a servicemember can grow-up as a dependent in one service, join another service in adulthood, be deployed around the world, stationed across the country, retire, and have a record that he or she can view and that each doctor and facility along the way can have full access to without the involvement of paper records or the requirement of data dumping from one system to another. I believe our servicemembers and veterans deserve this kind of seamless treatment. We must be sure that we are creating a system that does not place a burden on the patient.

Response. The Department of Defense (DOD) is fully committed to enhancing and expanding health information sharing capabilities that will improve the delivery and continuity of health care services. We believe that a number of key and significant initiatives have ensured the continued advancement of DOD and Department of Veterans Affairs (VA) information sharing efforts to benefit the continuity of care

for our patients. The DOD/VA Joint Executive Council and supporting governance structure provide the senior leadership and oversight necessary to ensure we achieve the goals and objectives of the DOD/VA Joint Strategic Plan.

The DOD/VA Interagency Program Office, which was established April 17, 2008, provides joint management and oversight for the Information Interoperability Plan (IIP) to help ensure the agencies continue to focus on further enhancing electronic data sharing to meet the requirements of the Departments. The DOD/VA Interagency Clinical Informatics Board (ICIB), established in May 2008, ensures clinicians have a direct voice in the prioritization of recommendations for DOD/VA health interoperability initiatives. The ICIB is responsible for identifying and prioritizing the essential health information that will be shared between DOD/VA.

DOD is fully committed to working with the Department of Health and Human Services (HHS) through the Office of the National Coordinator (ONC) to help advance national health information sharing capabilities. For example, DOD is currently engaged in several initiatives to explore alternative solutions for sharing health information with the private sector. Pilot studies are underway in Pensacola, Florida and Spartanburg, South Carolina, to examine the feasibility of sharing clinical information between DOD medical facilities and non-Federal partners. DOD and Microsoft are exploring the use of the Health Vault application as one possible solution that would allow those who receive care via contract providers to store and organize their health information and then share that information trusted entities such as physicians and hospitals.

Question 20. In this push to force these two huge agencies to work together and achieve parity in the area of electronic health records, I am concerned that the “customer”, our veterans, the men and women of our Armed Forces, and all the families that rely on these health care systems might see a reduction in the quality of the service they are provided. What steps are being taken so that our effort to improve services to the “customer” does not do more harm than good?

Response. The health care customers served by the Department of Defense (DOD) represent a large, varied, and mobile population. The use of electronic health records provide this customer base with health records that are legible, available worldwide, accessible by multiple providers simultaneously and are available 24 hours a day, 7 days a week. In post-disaster situations such as hurricanes, beneficiaries with electronic health records have been able to recover their health histories and have been able to have needed prescriptions renewed or refilled seamlessly due to our worldwide accessibility to the electronic health record, regardless of where the care was originally delivered. Often, prescriptions have been filled at locations far removed from the beneficiaries’ home location. Further interoperability between DOD and Department of Veterans Affairs systems will continue to support improved care to our “customers.”

In response to health care provider feedback, DOD is enhancing AHLTA to improve the clinical encounter documentation and workflow process and provide the necessary architecture to ensure overall performance and stability.

Question 21. The ability to utilize non-military providers is especially important for veterans (who live far away from VA facilities), servicemembers with special needs children (who need expert care only available in the private sector), and servicemembers stationed more than 50 miles from treatment facilities (who are required to rely on the private sector). Secure portals that allow private doctors who accept TRICARE to access the DOD/VA health records system is essential for ensuring that our servicemembers, their families, and our veterans have the highest quality of care possible. Please explain the departments’ efforts to achieve interoperability with the private sector.

Response. DOD fully supports efforts to exchange health information with the private sector to ensure medical information is included in the Servicemember’s longitudinal health record. In fiscal year 2009, DOD will provide an image scanning capability to enable DOD to scan information from the Managed Care Support Contractors, such as Specialty Care Consultants, so it is available to DOD providers. For the long term, DOD will continue to support Department of Health and Human Services efforts to foster health information sharing with the private sector. DOD is engaged in initiatives to explore alternative solutions to electronic information sharing with the private sector. DOD/VA support Nationwide Health Information Network (NHIN) “pilot projects” to leverage recognized interoperability standards and promote the exchange of health information with private health care organizations and provider networks. Projects are underway in Pensacola, Florida and Spartanburg, South Carolina and are part of the NHIN Trial Implementation to examine the feasibility of sharing clinical data from DOD medical facilities with non-Federal partners. DOD and Microsoft are exploring the use of the Health Vault ap-

plication as one possible solution that would allow those who receive care via contract providers to store and organize their health information and then share that information with trusted entities such as physicians and hospitals. These efforts will help to ensure the capture of private sector health care information and enhance the overall quality of DOD's longitudinal health record.

Chairman AKAKA. Thank you very much, Dr. Casscells.

Let me ask my good friend, Senator Burr, for his questions of this panel.

Senator BURR. Thank you, Mr. Chairman. I have a scheduling problem, so I will be brief, and I thank the Chair for letting me go first.

Doctors, both, thank you, and to the complement of folks who surround you and to the other individuals that I know are involved in this project, we are extremely pleased with the progress that has been made. I will summarize what I take from GAO: some progress, much left to do. I think we probably all agree with that—it lacks clarity of plan and time line. Agreements at the highest level needs to come down the chain. That is where I might disagree with them.

I grabbed this document, DOD/VA Information Interoperability Plan. I have had the opportunity to browse through it. I won't tell you that I understand everything from it, but, I want to point out a few things that are stated or included in this.

In the Executive Summary, it says the Information Interoperability Plan identifies more than 20 initiatives that close the remaining gaps in information sharing and allows us to achieve a shared vision of information interoperability.

Down further, it says the document is formed from a recent comprehensive analysis of interdepartmental information sharing. Not all defined initiatives are currently funded programs, something sometimes we forget about. Independent of resource constraints, implementation target milestones are identified based upon their expected value as determined by the functional committees and the feasibility of their implementation.

It goes on to say, the plan has been approved by the line of action co-leads, submitted to the Wounded Three, I think it is, and Injured Senior Oversight Committee's overarching integrated product team—that must have been a Defense piece—

[Laughter.]

Senator BURR [continuing]. And subsequently its implementation will be overseen by DOD and VA governance structure of the Joint Executive Council, Benefits Executive Council, and the Health Executive Council. This plan serves as the strategic organizing framework for current and future work to set the scope and milestones necessary to measure progress toward intermediate goals and a target state needed to continuously improve service to veterans and members of our Armed Forces.

I am not sure if GAO read that part, and I am not sure if they actually looked at this document. If they did, I am not sure that there would have been a blanket implication that: one, there was lack of clarity of a plan; or, two, that there weren't time lines. I turn to, out of Appendix B, page 24, where there clearly are milestones and plans. I think it is laid out for all members to look at.

I don't disagree with you, Dr. Casscells. For a period from 2001, there was a pitiful effort put toward what I think the private sector

was still looking at trying to decide whether they wanted to do or not. So it is not without understanding that I look at a reluctant DOD at participation with VA. I think had the partner been anybody, there would have been a reluctance on the part of DOD.

But, clearly, today there is a plan. It has clarity. It has time lines.

And then, I went not too far back in the book and I found Appendix D. Appendix D is 21 areas: Information sharing, inpatient electronic health information, Reserve component access to electronic health information—I won't read them all—personalized health care, Interagency Program Office, interagency data sharing architecture, benefits portal, Disability Evaluation System. That is really the meat of the rest of the report. It is the specifics on each of those 20 or 21 areas: about how you get there, how you go from here to there.

So, Mr. Chairman, I really don't have questions. I have a statement, and that statement is what we have done in the last 12 months is working. What has changed in my estimation is you have the heads who both agree where we go. What I don't think GAO understood was, I think, there is not only an exchange of ideas, but there is an active effort underneath those heads to implement what the heads have agreed to. It is not limited to the top of the chart. But, the top of the chart for the first time is in agreement, even though from 2001 to a year ago, I think people underneath the top were trying to figure out how they could incrementally talk to each other and share information. Without the buy-in at the top, it was impossible, because you would always get caught short with the resources needed to implement even the easy things—the things that you were just merely replicating from the private sector.

So, this is not an endorsement that we are there. This is an endorsement that I think we have made tremendous progress in the last 12 months. I think the next 12 months are going to be extremely challenging and I, for one, now know exactly which chart I am going to look at to try to figure out, month by month, almost, if we are hitting the time lines that are set for us.

The demonstration we went through is impressive and the fact is, I have sat at Womack Hospital. I have seen the troops come in. I have seen the packet of information with their health records. I have seen as they entered Womack the fact that it still went—and this is over a year ago, so don't hold me to it—that it still went into a paper form versus an electronic form. Yet the individuals that I saw were definitely individuals that in the near future were going to be discharged and be the recipient of the VA system. A lack of acknowledgement at that period that it was even important to get the records in a form that could be defined as seamless.

I think, not only is the plan designed in a way that the end result is seamless, I think the progress that we have made gives me tremendous optimism that we can come extremely close, if not across the goal line, with the target of 2009. So, I commend you for what you have done. I encourage you to continue to do what you are doing.

And I hope that next time we get together on this, that truly we can hold this up as a model not just for two Federal agencies, but

actually something that I personally think the private sector will see as an endorsement as to why the private sector needs to have the capabilities of sharing medical data from doctor to doctor, from facility to facility, from rural health clinic to the hospital, because the overall result of that is a lower cost for the delivery of health care and for a better outcome for the patient. I have got to think that somewhere in this packet of information, those are probably the two things that are the foundation of why you are doing what you are doing. Clearly, it is to make sure that the outcome is as optimal for the patient, for the warrior, as it possibly can be.

I thank all of you. Thank you, Mr. Chairman.

Chairman AKAKA. Thank you very much, Senator Burr, for your views here.

Before I call on Senator Murray, let me address Dr. Kussman and Dr. Casscells. The slow progress made by VA and DOD in fully sharing electronic medical information led Congress to mandate the September 2009 deadline. However, in a report sent to Congress this past April, the Departments appeared to already be backing away from the deadline. Now, my question to you in follow-up to this view is, is this an accurate assessment or do you believe that you will meet the deadline? Dr. Kussman?

Dr. KUSSMAN. Mr. Chairman, I think that as even GAO commented on, and what both Dr. Casscells and I have commented on, that again, part of it is the determination and definition of interoperability. We believe that through the Joint Clinical Information Board that we have established, where physicians and clinicians on both sides establish what they think they need for interoperability to take care of patients, which is, after all, the goal here—there are always going to be some challenges as we move forward. But, we believe that to a large degree, as Dr. Fletcher already showed you, there is a tremendous amount of interoperability; and that the gaps that still exist, we have a plan to get those done by the end of September 2009. So, I feel very confident, as Dr. Casscells has mentioned, that we will have clinical interoperability by the end of September 2009.

Let me just add to that the fact that we are very appreciative of what we have done. I always use the term “glacial,” as well, Mr. Chairman, on a lot of the things that happen. But, over the last couple of years, with the commitment of Dr. Casscells, myself, and the two Secretaries, that there is clearly a tremendous emphasis from the leadership to get this done and get it done right. I believe with the other people who are sitting here with us, we have made a tectonic shift or a quantum leap to where we are.

It is not perfect yet. We have things that we need to do and will continue to do them. Because a lot of the strategic plan is a work in progress, we will learn more things and we will evolve what we are doing. But, I believe we—practically, from day to day—have made huge strides in making sure that the most deserving patients in the world—people who are hurt in defense of their country—do not suffer in any way by a lack of information flow.

Chairman AKAKA. Dr. Casscells?

Dr. CASSCELLS. Mr. Chairman, Senator Murray, by the end of September next year, we will add to the current bidirectional health information exchange the remaining major pieces—family

history, social history, and so forth—because we already are exchanging the problem lists, the clinical notes, the radiology reports, the lab reports, the pharmacy data, the allergies, the operative notes. So, we will have all the basic clinical information that the doctors and the patients want.

In parallel to this, of course, we have some other things going on. We are rolling out the inpatient record, which is, in our case, a commercial off-the-shelf product, as at least an interim step so that we, too, have an inpatient electronic record. This one is called Essentris. We are also rolling out AHLTA Version 3.3 and we will be offering at the end of this calendar year web-based personal health records, which patients can use in a secure and confidential private way as their own backup.

So, we are doing several things at the same time, and yet I am confident that we will—one year from today plus a week—have all the real-time exchange that any clinical doctor or patient would want. So, they could say, it doesn't matter whether I am seen today at the VA or at Walter Reed or Brooke Army Medical Center. Some patients do go back and forth.

I can not promise yet that we will have interoperability a year from now with the average civilian hospital. I would say that yesterday's demonstration at HHS was very, very successful, and that is coming along faster than I had hoped.

We will, I think, have interoperability with many of the major civilian hospitals, as well, over the next year. But the key one is the DOD/VA transition and bidirectional. That, we will have a year from now.

Chairman AKAKA. I have questions to ask, but let me pass it on to Senator Murray and ask for her statement and questions.

**STATEMENT OF HON. PATTY MURRAY,
U.S. SENATOR FROM WASHINGTON**

Senator MURRAY. Thank you very much, Mr. Chairman. I apologize for being late. There is a lot going on. We are working our way through here.

I was interested because I did see the discrepancy between the Defense Authorization Bill time line of a year from now and several of the time lines that were included in the DOD/VA Information Interoperability Plan that were confusing to me because they were different. So, I think what you are saying, if I heard you correctly, is that you do expect the major parts of this to be done by next September, but as far as the civilian exchange, that will extend beyond next year?

Dr. CASSCELLS. Yes, ma'am.

Senator MURRAY. OK, and that is achievable?

Dr. CASSCELLS. Yes.

Senator MURRAY. OK, because I know that you don't expect to have the Interagency Program Office that is tasked with overseeing this in place until the end of this year, so it just gives you 9 months, and that time line is workable?

Dr. KUSSMAN. Can I jump in here?

Senator MURRAY. Sure.

Dr. KUSSMAN. Sorry. Thank you, Senator Murray. The office has already been established and set up. We have acting people in

those positions. Mr. Freeman here is the Acting Deputy of that. So, it is not that the office hasn't been established and nobody is doing anything, but we have been developing position descriptions and hiring people, and we believe that will be completed by the end of the calendar year. But the office is already up. Cliff, would you like to say something?

Mr. FREEMAN. We have actually been doing this work for 4 or 5 years, just out of different offices. So, from where I was detailed—the DOD/VA Health IT Sharing Office—much of the work that the IPO will do at a higher level was already being done. So, as we move forward and put the permanent staff in place—we have military staff in uniform detailed to us, we have contract staff accessible to us, and then a lot of the staff that were doing the work previously are still moving this forward. So, we do have in process reviews with some of the DOD/VA projects to make sure that they are making adequate progress as we move forward.

Obviously, once we are fully stood up, it will be very powerful. We will have everybody we need at that point. We are making progress. We are moving forward.

Senator MURRAY. OK. And the GAO testified that the definition of full interoperability is unclear. Can you comment on what that means for your efforts and how we should interpret that?

Dr. KUSSMAN. As the GAO representative testified, is that it is partly a definitional term.

Senator MURRAY. Right.

Dr. KUSSMAN. If one looks at interoperability as a single system, you know, that is not practical and is not going to be achievable over this short period of time, if ever. We are talking about clinical interoperability that allows the important information flow to be sure that the patients get what they need as they transition; and we believe, and even the GAO person acknowledged, that we already have a tremendous amount of interoperability. And the question was, where will we be a year from now? And as you have heard, we are going to fill in the gaps about the social histories, the other things that we believe are valuable to the clinicians.

What we have tried to do is have this interoperability driven by the people who are taking care of patients to determine what information really needs to be transferred. And we believe that we have already achieved a great deal, as the demonstration showed, but also have some ways to go. We expect by the end of September 2009 we will have filled in those gaps.

Senator MURRAY. Is anything being done to put in place a definition so we all are on the same page and know where we are going?

Mr. FREEMAN. We used the Joint Clinical Information Board, which is a board composed of both VA and DOD clinicians, and for this milestone, we went through an inventory with them to review what was already available; and the question they were asked was, what, in addition to what you get now, do you need to provide quality care to patients across the VA/DOD continuum of care? They came back with five or six additional pieces of either data or interoperability that they needed to meet that definition of quality care. So, that was really the definition we have used to this point.

Dr. TIBBITS. Maybe it would be useful to just interject here that the definition we are aiming for is a clinical definition. It is not a

technical or a computer definition. So, it is not all data or all real time or any of those technical terms. It is a clinical definition that we are after, which I think is what you are hearing described here.

Senator MURRAY. OK. All right. And finally, just quickly, on the security issue, what are we doing to ensure that this information is secure? Is it encrypted? What are we—can you just give me a quick glimpse of that?

Dr. TIBBITS. Well, let me—I am going to have to answer you in general terms. We are working very closely on both sides with our respective security experts. We are very aggressive in both Departments in enforcing security provisions.

These information exchanges are no exception to any of those provisions, so on our side, for example, we have our points of contact that work very closely with DISA to make sure we meet the gateway specifications and all of those things to exchange the information. Where encryption is necessary, we either do it or will do it, if that turns out to be a necessity. We have certain monitoring devices on our laptops and what not to make sure inappropriate information is not sent inadvertently.

There are a variety of things, initiatives we have underway. There is no end run around all of that. We are working very closely with our respective security communities to make sure that we do that. In the Department of Veterans Affairs OI&T, we have an entire division under an SES to lead information protection initiatives in the Department and we follow all the standards and rules that they set, provide the systems capabilities to achieve the necessary Authority to Operate, and so forth.

Senator MURRAY. OK. All right. Yes, sir?

Mr. CAMPBELL. Just to follow on to that, on the DOD side, we have to take our plans of how we are going to share that information and the architecture of how we are going to do that and we have to run those through the DOD security folks. They review all that and approve it before we can go ahead, and they have done that.

Senator MURRAY. OK. I just wanted to clarify it. So, thank you very much. I really appreciate all of your work on this.

Thank you, Mr. Chairman.

Chairman AKAKA. Thank you very much, Senator Murray.

Dr. Kussman and Dr. Casscells, let us move fast forward to January and let us assume that neither of you will be in your current positions. [Laughter.]

Well, I am saying that because I don't want the progress to stop. We want to move as close as we can. Let me ask you this. What can you leave behind in terms of resources and more information to ensure that your good work to date is not lost? I was thinking in terms of something you mentioned, Dr. Kussman—you said, position description. I was thinking of a job description that can help whoever comes on so that there is no loss and that there would be a benefit from what you have gained and what you think will be coming. Dr. Kussman?

Dr. KUSSMAN. Yes. Mr. Chairman, obviously, people sometimes get concerned about this. I think if you look at the people who are sitting here, there is no accident why we have been successful. Chuck was on active duty, came over to the VA, he is now back

in DOD. Paul is former Navy—I won't hold that against him—and Cliff was former Army. I believe that the commitment and the inculcation into the culture is now beyond Trip or myself. It is not a personality-driven thing and that work will go on because it is the right thing to do.

We have now got the momentum going forward and I believe there is great enthusiasm up and down, for lack of a better term, the bureaucracy on both sides that want to make this happen. So, whoever comes in in the leadership positions would find it extremely difficult to change any of it because it is moving forward in the right way.

Chairman AKAKA. Dr. Casscells?

Dr. CASSCELLS. Sir, I would just add that the two Secretaries have made this a priority and both the Secretary of the VA and the Secretary of Defense are people who mean business. Their reminders plus the Congressional requirements have really kept this issue on the front burner for Dr. Kussman and myself.

So, I think I would just add that it would be great if the succeeding Secretaries recognized that electronic health records are critical to providing quality and reliable, secure, cost-effective care, because there are people who doubt this. But, as you mentioned in your opening statement, this is really proven and it just needs to be made a priority. It is now. We hope it is maintained as a priority.

Chairman AKAKA. Well, I thank you very much. As Chairman of the Subcommittee on Federal Workforce and Government Management, I have been spending time on transition and this is part of the transition, because I feel it is so important to whoever is going to be the next President to have this kind of information so that he can move forward.

I thank you for what you folks are doing. It is really tremendous—the progress that you have made; however, we are still looking at the deadlines.

In closing, I again thank all of our witnesses for appearing today. And by the way, I have other questions that I will submit. Your input on these issues is valuable to the Committee as we work to ensure that veterans and servicemembers receive the best health care possible. I believe that effective data sharing between the Departments is really a key component toward reaching that goal.

As the session winds down, so does this administration, and I do not know where all of our department witnesses will be come January. For those who will be moving on, I urge you to leave behind good people, and you have mentioned that, Dr. Kussman and Dr. Casscells—good people and a road map for success. So, that is what we are looking at for the future of our great country and for our troops as well as our veterans.

So, thank you again very much, and this hearing is adjourned.
[Whereupon, at 10:55 a.m., the Committee was adjourned.]