The Honorable Carl Levin  
Chairman, Committee on Armed Services  
United States Senate  
Washington, DC  20510  

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

[Signature]

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)

Enclosure:  
As stated  

cc:  
The Honorable John McCain  
Ranking Member
The Honorable James H. Webb  
Chairman, Subcommittee on Personnel  
Committee on Armed Services  
United States Senate  
Washington, DC 20510  

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230 to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)

Enclosure:  
As stated

cc:  
The Honorable Lindsey O. Graham  
Ranking Member
The Honorable Ike Skelton  
Chairman, Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)

Enclosure:  
As stated

cc:  
The Honorable Howard P. “Buck” McKeon  
Ranking Member
The Honorable Susan A. Davis  
Chairwoman, Subcommittee on Military Personnel  
Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515  

Dear Madam Chairwoman:  

This letter responds to House Appropriations Committee Report 111-230 to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.  

Thank you for your continued support of the Military Health System.  

Sincerely,  

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)  

Enclosure:  
As stated  

cc:  
The Honorable Joe Wilson  
Ranking Member
The Honorable Daniel K. Inouye  
Chairman, Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)

Enclosure:  
As stated

cc:  
The Honorable Thad Cochran  
Vice Chairman
The Honorable Daniel K. Inouye  
Chairman, Subcommittee on Defense  
Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, "Electronic Health Record," discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

[Signature]

George Peach Taylor, Jr., M.D.
Deputy Assistant Secretary of Defense
(Force Health Protection and Readiness)
Performing the Duties of the
Assistant Secretary of Defense
(Health Affairs)

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Vice Chairman
The Honorable David Obey  
Chairman, Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

George Peach Taylor, Jr., M.D.  
Deputy Assistant Secretary of Defense  
(Force Health Protection and Readiness)  
Performing the Duties of the  
Assistant Secretary of Defense  
(Health Affairs)

Enclosure:  
As stated

cc:  
The Honorable Jerry Lewis  
Ranking Member
The Honorable Norm Dicks
Chairman, Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter responds to House Appropriations Committee Report 111-230, to accompany H.R. 3326, the Department of Defense Appropriations Act, 2010, on the status of availability of funding from programs within the Department of Defense. The enclosed final report, “Electronic Health Record,” discusses funding of the accelerated completion and deployment of the Department’s new service-oriented architecture.

Thank you for your continued support of the Military Health System.

Sincerely,

George Peach Taylor, Jr., M.D.
Deputy Assistant Secretary of Defense
(Force Health Protection and Readiness)
Performing the Duties of the
Assistant Secretary of Defense
(Health Affairs)

Enclosure:
As stated

cc:
The Honorable C. W. Bill Young
Ranking Member
DEPARTMENT OF DEFENSE

ELECTRONIC HEALTH RECORD

Stabilization, Modernization and Funding Sources

August 10, 2010

Report to

United States House of Representatives
Appropriations Committee

as requested in

Report 111-230 accompanying the Defense Appropriations Act, 2010
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>EXECUTIVE SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td>THE NEED FOR EHR STABILIZATION AND MODERNIZATION</td>
<td>2</td>
</tr>
<tr>
<td>III.</td>
<td>EHR IMPROVEMENTS – FROM STABILIZATION TO MODERNIZATION</td>
<td>3</td>
</tr>
<tr>
<td>IV.</td>
<td>EHR MODERNIZATION FUNDING PROFILE</td>
<td>9</td>
</tr>
<tr>
<td>V.</td>
<td>CONCLUSION</td>
<td>12</td>
</tr>
</tbody>
</table>
I. EXECUTIVE SUMMARY

The Department of Defense (DoD) is modernizing its suite of electronic health record (EHR) applications and supporting infrastructure to create a stable, agile, responsive and extensible system. In Report 111-230 accompanying the Defense Appropriations Act, 2010 (P.L. 111-118, Dec. 19, 2009) (DAA 2010), the House Appropriations Committee expressed concern about funding the accelerated completion and deployment of the Department’s new service oriented architecture (SOA). The Report stated:

*It is the Committee’s understanding that the additional funding needed to accelerate completion and deployment of the SOA in 28 months, by February 2011, is $712,500,000 for fiscal year 2010 and $441,700,000 for fiscal year 2011. The Committee also understands that the Under Secretary of Defense, Comptroller is currently reviewing internally what funds may be available to alleviate the unfunded requirement in order to accelerate deployment of the system.*

With the Department’s internal review in progress upon passage of DAA 2010, the Secretary of Defense was directed to report thereafter on the availability of funding from programs within the Department. The Department filed an interim response with the House and Senate Appropriations Committees by letter dated November 23, 2009.

The following actions were required to be completed prior to fully addressing the Committees’ questions on funding for EHR modernization. The formal Materiel Development Decision and an Acquisition Decision Memorandum for the EHR Way Ahead were issued by the Deputy Undersecretary of Defense, Acquisition, Technology and Logistics (DUSD (AT&L)), the Milestone Decision Authority (MDA), in May 2010. The MDA designated the EHR program a Major Automated Information System and Defense Business System and allows the Department to proceed with an Analysis of Alternatives (AoA) based on the Joint Requirements Oversight Council-approved Initial Capabilities Document for the EHR Way Ahead. Then, in June 2010, the Department filed a related report with the Senate and House Committees on Armed Services which discusses health IM/IT programs planned and programmed for the electronic support of clinical medical care within MHS. The report responded to a request in Section 716 of Conference Report 111-288 accompanying the National Defense Authorization Act for Fiscal Year 2010 (P.L. 84, Oct. 28, 2009) (NDAA FY 2010).

Having achieved these key milestones, the Department is pleased to respond fully to the funding related questions accompanying DAA 2010.
II. THE NEED FOR EHR STABILIZATION AND MODERNIZATION

The current DoD EHR family of applications must be modernized to accommodate the rapid evolution of healthcare practices and data sharing needs, and to speed the fielding of new capabilities. Its legacy system underpinnings need to be stabilized to address significant operational availability, speed, and usability issues.

Many current DoD EHR capabilities (which include AHLTA and the Composite Health Care System (CHCS)) were developed in the late 1980s and 1990s using the most advanced technology available. These DoD EHR systems have continued to evolve and mature from their inception to the present. To meet evolving user’s needs, enhancements are routinely released. The current DoD EHR family of systems forms one of the largest ambulatory EHRs in the world, with documentation of an average of 140,000 patient encounters each day. However, the current suite of applications and underlying infrastructure does not support the challenges of the rapid evolution of today’s healthcare practices, the ever-increasing need to transact and share data across the continuum of care, and the timely fielding of new capabilities.

Existing applications were built at different times, use different standards and terminologies, and, though interfaced, look different to the user and perform differently. From the user’s perspective, EHR applications do not function as one product but rather several products, requiring multiple logins, familiarity with different screens and placement of key functions, and time consuming movement between various applications. The number of interfaced applications drives up the cost and time to develop and test new capabilities. Instead of developing or purchasing a new capability to interface with one application, the product must interface with many applications. Additionally, changes to aging hardware, software, workstations, servers and communications networks often impact system performance and end user operational availability. Consequently, current EHR applications and their interfaced legacy systems face issues with sustainment, operational availability, extensibility, scalability, interoperability, usability, extended development timeline and capability gaps.
III. EHR IMPROVEMENTS – FROM STABILIZATION TO MODERNIZATION

In the fall of 2009, MHS leadership developed a multi-year plan to redesign the EHR supporting infrastructure and incrementally deliver key functionality. At the threshold, MHS must stabilize current EHR capabilities so that users may efficiently perform their duties in a timely manner, regardless of location, time of day or network issues. It is imperative that the Department address known shortfalls and key challenges with functional applications and core infrastructure, including critical user concerns with system speed, operational availability and the user interface. This will allow DoD to meet providers’ near term needs and better prepare for the transition of applications and supporting infrastructure. Further, stabilization efforts will mitigate potential risks prior to increasing reliance on these systems for achieving expanded interoperability through the Virtual Lifetime Electronic Record (VLER).

STABILIZING THE EHR. MHS is focused on three primary areas for EHR stabilization: (1) increased operational availability as measured by the end user; (2) increased speed of the EHR as experienced by the end user; and (3) increased usability from the perspective of the end user. MHS, working with partners such as the Defense Information Systems Agency (DISA), has instituted changes in the last year to address the primary focus areas for EHR stabilization. Further stabilization efforts are in deployment, development and acquisition.

Stabilization efforts must also look to the future. As MHS stabilizes current EHR applications, initiatives must also prepare applications and infrastructure for transition to the next generation EHR. Pre-program risk reduction activities are designed to address the three primary focus areas for EHR stabilization and better prepare for modular replacement of EHR applications. The current set of EHR capabilities, particularly CHCS and AHLTA, were not designed for modular replacement. Stabilization and risk reduction efforts must meet near term goals and enable future transition.

Capabilities needed to support the Federal Health Care Center (FHCC) in North Chicago are integral to this effort. Many technologies that enable VA’s VistA, VistA Web and CPRS to operate as part of the MHS EHR suite of applications are the same technologies that will be used across the MHS enterprise to address operational availability, speed and usability. These technologies are also needed to better prepare for the transition to the next generation EHR.

DoD has completed the deployment of several key stabilization efforts; others are currently in deployment, development or acquisition. The following paragraphs describe the efforts involved in each phase at a high level.
**Completed Stabilization Efforts:** MHS has completed numerous stabilization efforts, including circuit upgrades, network protection suite improvements, enterprise remote access, increased protection suite for MHS healthcare data, upgrades to local and wide area networks (LAN/WAN) at 49 military treatment facility (MTF) host sites, replacement of 275 MTF-based servers, and multiple software upgrades focused on downtime reduction.

**Stabilization Efforts in Deployment:** DoD is in the process of deploying software releases and performing critical integration and upgrades needed to achieve additional stabilization goals related to AHLTA/CHCS and the Theater Medical Information Program (TMIP).

**AHLTA 3.3:** The rollout of AHLTA 3.3 is underway. As of July 2010, AHLTA 3.3 is deployed to more than 100 of 151 MTFs. Full deployment of AHLTA 3.3 to all 151 MTFs is expected to be complete in the first quarter of fiscal year (FY) 2011. The AHLTA 3.3 software enhances system performance and speed as well as DoD/VA Sharing and provider capabilities. AHLTA 3.3 is designed to minimize systems transitions between encounter sub-modules, support asynchronous loading of data, automatically refresh notifications, and increase the speed of the order entry connection/login using an asynchronous capability.

The AHLTA 3.3 service pack 1 contains more than 200 user requested fixes and enhancements to improve system usability through medication reconciliation and printing capabilities and print features enabled for laboratory, radiology, vital signs and problem lists. The service pack also features integrated immunizations for automated procedure workload capture, special flags, Personnel Reliability Program (PRP) status alert, capability to undo patient check-in and for admin to close encounters, questionnaire enhancements, and the grouping of the patient’s clinical problems in a clinically relevant manner (e.g., acute vs. chronic).

**Bidirectional Health Information Exchange:** DoD/VA sharing enhancements to BHIE help ensure that DoD and VA providers may view clinical information in real time for patients receiving care in either agency’s health system via the exchange as health data sharing capabilities expand. Key changes support future planned electronic health data sharing via VLER through the Nationwide Health Information Network (Network). MHS is improving the BHIE framework interfaces to allow for integration of VLER and BHIE. The improvements support viewing of C32 documents received via the Network by weaving the capability to view C32 (and other Network standards-based documents) into a combined BHIE/VLER/Nationwide Health Information Network viewer. BHIE capabilities will transition to Network standards based exchange mechanisms.
Theater: MHS is enhancing the functionality of the Theater suite by adding desired AHLTA-Theater, TMIP, CHCS Cache (TC2) and TMIP framework functionality. With the release of TMIP Block 2 Release 1, DoD is rolling out expanded AHLTA Mobile tools for first responders, including documentation, data access, reference libraries and medical resources. The AHLTA Theater component extends the sustaining base EHR capability look and feel to the theater of operations. TC2 integration provides documentation for theater inpatient healthcare and ancillary services order entry and result reporting in the deployed environment. Finally, upgrades to the TMIP framework being deployed as part of this effort will support improved transmission of electronic records and other medical information from the theater of operations to repositories in the continental United States.

Other theater-focused improvements include the rollout of a Deployable Tele-Radiology System, which provides healthcare providers in Operation Iraqi Freedom/Operation Enduring Freedom with access to radiographic images in theater for tele-radiology, and transfers images back to definitive care in garrison. The Theater Medical Data Store (TMDS) is the authoritative theater database for collecting, distributing and viewing Service members’ pertinent medical information. TMDS further expands deployed providers’ view of health information across all levels of care in theater by supporting access to garrison health records.

Stabilization Efforts in Development or Acquisition: DoD will develop or acquire additional stabilization solutions as part of the pre-program risk reduction phase to be executed prior to the EHR Way Ahead. This risk reduction phase is designed to provide MHS with a standards-based interoperability framework and a solid infrastructure framework to further increase operational availability, speed and usability of legacy applications and prepare for the transition to next generation EHR capabilities. This risk reduction phase will stabilize current EHR applications (AHLTA/CHCS) and infrastructure, and will set the stage for modernization activities, taking advantage of opportunities afforded by FHCC North Chicago. Further, it will provide standards based interoperability with VA through the Nationwide Health Information Network and implement several capabilities that will be leveraged for transition to next generation EHR capabilities.

Pre-Program Risk Reduction Overview: Pre-program risk reduction activities include core functional and infrastructure efforts. Core functional efforts include AHLTA/CHCS Critical Fixes and Support; Single-Sign On with Context Management (SSO-CM); and Graphical User Interface (GUI) Portal Framework. Core infrastructure efforts include Enterprise Service Bus (ESB); the Consolidated MHS Development and Test Center; and Enterprise Level Virtualized Information Services. In addition to these core functional and infrastructure efforts, DoD intends to provide comprehensive sustainment support services to the enterprise. MHS MTFs rely on MHS systems for effective and efficient operations to provide quality healthcare to the military beneficiary population, and
overarching sustainment services are crucial to ensuring the required system availability for provision of care.

The North Chicago Veterans Affairs Medical Center and the Naval Health Clinic Great Lakes are scheduled to merge into one FHCC on October 1, 2010. Reusable, modular IT capabilities are being developed to address challenges in both Departments’ healthcare systems and support the new FHCC. FHCC North Chicago requirements include:

- a joint patient registration solution that enables users to register and search for patients using a common GUI
- a medical SSO/CM solution that supports role based access to both DoD and VA systems using a single login process with the ability to maintain patient context, and
- orders portability solutions that enable users to order laboratory or radiology procedures or medications from one Department’s system and have that order fulfilled in the other Department’s system, with status and results returned to the ordering system

Several pre-program risk reduction efforts for the EHR Way Ahead also support FHCC North Chicago requirements. MHS is meeting FHCC North Chicago requirements using key stabilization capabilities that will then be deployed enterprise wide. Pre-program activities of the EHR Way Ahead address FHCC North Chicago requirements and critical issues and challenges with current EHR capabilities, and lay groundwork required for future success with VLER and the Nationwide Health Information Network.

As DoD implements these initiatives at FHCC North Chicago, the Department will also evaluate their potential for use at future FHCCs. FHCC North Chicago also affords the Departments an opportunity to evaluate the use of a common services approach. DoD and VA will use a common services approach to support a single patient registration process for FHCC North Chicago. This process unifies DoD/VA patient registration, so that registering a patient in either system will begin the registration process in both. Enterprise solutions developed for FHCC North Chicago potentially will be exported to other joint ventures, when appropriate.

**Core Functional and Infrastructure Efforts:** Descriptions of each of the core functional and infrastructure efforts are provided below.

*Single Sign On with Context Management (SSO/CM):* The SSO/CM solution will satisfy the need at FHCC North Chicago and ultimately the entire MHS for providing clinical users a secure, unified access to clinical data at the point of care. The solution will dramatically simplify access to clinical information and provide caregivers with a more comprehensive and integrated view of a patient’s healthcare. Single Sign On integrates the user’s workspace by allowing a single sign on between medical applications, simplifying access while Context Management extends the user workspace integration by
maintaining the same patient (context) between each application, which improves usability and patient safety. SSO/CM will be used across DoD and VA clinical applications at FHCC North Chicago. The SSO/CM solution will also support MHS enterprise-wide requirements.

**GUI Portal Framework:** A unified GUI portal framework will be implemented to support FHCC North Chicago, with expansion to the remainder of the MHS enterprise. The GUI portal framework will support a common access point for health information and capabilities and will allow ongoing and subsequent development efforts to be more easily “plugged in and unplugged.” The GUI portal framework will be the MHS platform component through which MHS applications can be accessed for viewing, retrieving, entering and accessing data, and for verifying application interoperability. The MHS GUI portal framework will host discrete pieces of functionality through standards compliant portlets. The solution will work collaboratively and seamlessly with the SSO/CM solution. The framework is user tailorable, giving users the capability to maximize, minimize, add or delete portlets.

**Enterprise Service Bus (ESB):** The MHS ESB is a core infrastructure element that supports increased HIT interoperability. An ESB provides messaging services that ensure access for applications via standard protocols and supports interoperability and data sharing. DoD will use the MHS ESB to help eliminate many point-to-point connections; increase speed and performance of MHS applications; and support information interoperability and data sharing within MHS, and among MHS, VA and civilian treatment facilities. The MHS ESB will be implemented initially to fulfill inter-application messaging requirements for FHCC North Chicago. The ESB will provide the common link between VistA and AHLTA/CHCS for orders portability for laboratory, radiology, pharmacy and consults for FHCC North Chicago. Once operational, the ESB will support applications needed to meet FHCC North Chicago’s identified functional requirements.

DoD will use a phased approach to implementing the ESB. As discussed previously, Phase I is focused on proving out the proposed technology at the FHCC North Chicago facility. Phase II includes further analysis and planning and further proving out of the proposed technology in a large medical region. Phase III will include the expansion of this foundational technology across the enterprise. This technology is expected to sunset the multiple point to point connections as well as existing and divergent ESB and ESB-like projects currently in the MHS inventory (e.g., TMIP Framework, iXP).

**Consolidated MHS Development and Test Center:** DoD stabilization plans include the stand up of a Consolidated MHS Development and Test Center. The facility will provide MHS with a dedicated, fully functional, environmentally controlled common development and testing environment that is not controlled by an integration contractor.
**Enterprise Level Virtualized Information Services:** As part of risk reduction efforts for the EHR Way Ahead, MHS will provide for an operationally-relevant Enterprise Level Virtualized Information Services environment for the 42 MHS centrally managed applications using “best of breed” commercial off-the-shelf (COTS) technologies. These services will support current applications that can be virtualized, as well as the “end state” EHR applications and systems. This platform is critical to the migration of the AHLTA end-user client from 110,000 end user devices (EUDs) to a more manageable server environment. The new environment will simplify the process of software maintenance and updates, reduce Tier I errors due to conflicting configurations on the EUDs, and improve overall application stability by ensuring adequate processor and memory capacity to handle the application. This capability will also enhance usability, allowing end users to access EHR capabilities from any secure web device.

AHLTA virtualization efforts will improve availability of the application to the user, simplify support and improve update time to market. Virtualization entails moving applications off the PC desktop so every workstation has access to needed applications via the Web. This allows any workstation to be used for clinical, business or another focus. Other benefits of virtualization include easier use of different “Web appliances” such as tablets, laptops and other devices, and the ability to more easily add or replace backend systems (as is anticipated with the EHR Way Ahead), with far less disruption to the user community.

**AHLTA/CHCS Critical Fixes:** Critical fixes for AHLTA/CHCS will improve the infrastructure, allowing the application to perform more reliably and faster. These fixes will also address software defects.

**AHLTA/CHCS Sustainment Support:** Sustainment support provides comprehensive system maintenance, logistical operations and maintenance, site operations and subject matter expertise (SME) support for CHCS and AHLTA, with the goal of providing appropriate and sustaining clinical systems support to ensure continuing operational availability. MTFs rely on these systems for effective and efficient operations to provide quality healthcare to the military beneficiary population. Sustainment support will include system engineering, security accreditation, Tier III, and beta site support and maintenance, to ensure a continuity of operations for AHLTA so that doctors in DoD hospitals and clinics have the complete medical record to make informed medical diagnoses for their patients.

AHLTA/CHCS stabilization and sustainment efforts, coupled with the implementation of the solutions described above, will move MHS closer to achieving a comprehensive, enhanced suite of EHR applications supported by stable, robust enterprise architecture. Completion of these activities will stabilize the current EHR application foundation and provide the initial core infrastructure required for EHR modernization efforts.
MODERNIZING THE EHR – THE EHR WAY AHEAD. To address DoD and national interoperability objectives – including VLER and the Nationwide Health Information Network data sharing initiatives – the EHR Way Ahead provides for modernization of the EHR family of applications; enhanced usability of those applications; improved clinical decision support; empowerment of patients through secure messaging and access to personal health record solutions; and increased system performance and data availability through modernization of networks and the establishment of regionalized data centers.

Key Components: Key components that MHS requires to improve availability, speed and usability of EHR capabilities include the ESB and SSO/CM. The SSO/CM solution for FHCC North Chicago was selected because it meets requirements for use in garrison as well as in Theater. Further, the FHCC North Chicago effort is aligned with the GUI portal framework concept in the EHR Way Ahead. As clinical components of legacy systems are replaced, the portal concept comes into play and allows MHS to switch out capabilities without disruption to the end user. The portal concept also facilitates the incorporation of key legacy systems – including VistA and CPRS – in FHCC North Chicago by supporting the ability to “plug in” those applications to make those capabilities accessible via the GUI portal framework.

Modernization: The schedule and delivery of the EHR Way Ahead is dependent on results of an Analysis of Alternatives (AoA). The AoA satisfies the requirement of Section 8066(c) of the Defense Appropriations Act 2007 that an AoA be conducted, and meets the requirements of Subtitle III of title 40 (codification of the Clinger Cohen Act of 1996). The purpose of the AoA is to examine costs and benefits of reasonable alternatives that address recognized mission needs, and aid decision makers in assessing whether alternatives offer sufficient military or economic benefit relative to the status quo.

IV. EHR MODERNIZATION FUNDING PROFILE

The funding requirement for EHR modernization has been addressed within the Department through several different funding sources. The funding profile for the Department’s EHR modernization plans – from pre-program risk reduction activities through the EHR Way Ahead – is described below, delineated by the funding type:

- FY 2008/2009/2010 Defense Health Program (DHP) Research, Development, Test and Evaluation (RDT&E) and Procurement funds and FY 2010 Joint Incentive Fund (JIF) dollars are being applied to AHLTA/CHCS stabilization and critical fixes
- FY 2010 DHP reprogramming (procurement funding); and
- FY 2011 President’s Budget funding for the EHR Way Ahead

The TRICARE Management Activity (TMA) is currently executing all funding received. Congressional inquiries on use of JIF funding for this project held the remaining $25 million in FY 2010 JIF funding in abeyance for several months. In the third quarter of FY 2010, the Senate Appropriations Committee directed release of the remaining $25 million JIF funding. TMA is pre-positioned to pursue obligation of these funds upon receipt; however, significant execution time is required for the funds transfer, certification, obligation and acquisition processes.

<table>
<thead>
<tr>
<th>Funding Type</th>
<th>In millions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY 2008</td>
</tr>
<tr>
<td>RDT&amp;E (DHP)</td>
<td>0.000</td>
</tr>
<tr>
<td>PROC (DHP)</td>
<td>19.243</td>
</tr>
<tr>
<td>RDT&amp;E (DHP - OCO)</td>
<td>0.000</td>
</tr>
<tr>
<td>Joint Incentive Fund (FHCC North Chicago)</td>
<td>0.000</td>
</tr>
<tr>
<td>Total</td>
<td>19.243</td>
</tr>
</tbody>
</table>

FY 2010 DHP REPROGRAMMING – PROCUREMENT FUNDING. A total of $20 million of FY 2010/2012 DHP Procurement is being applied to fund COTS equipment and software for the stabilization and risk reduction activities. Modernization efforts to be supported by this funding include MHS-wide deployment of SSO/CM and the GUI improvements. The $20 million in funding provides $7 million for Implementation and Training activities; $5 million for Context Management and GUI Portal Framework COTS licenses; and $8 million for Single-Sign On COTS licenses.
The aforementioned solutions provide a foundation for the EHR Way Ahead modernization efforts currently undergoing an AoA. This analytical comparison of the operational effectiveness, suitability, and life-cycle cost of alternatives that satisfy established capability needs must precede any decision to pursue a new investment in capabilities. The schedule and delivery of the EHR Way Ahead is dependent on the results of the AoA.

The EHR Way Ahead that will result from the AoA is anticipated to address specific challenges with the current DoD EHR, by modernizing legacy technologies; improving performance and data availability; increasing user satisfaction; and supporting use of maturing healthcare industry standards.

<table>
<thead>
<tr>
<th>FY 2010 DHP Reprogramming Funding Type</th>
<th>In millions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC – Implementation and Training Activity</td>
<td>7.000</td>
</tr>
<tr>
<td>PROC – Context Management and GUI Portal Framework COTS Licenses</td>
<td>5.000</td>
</tr>
<tr>
<td>PROC – Single Sign On COTS Licenses</td>
<td>8.000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20.000</td>
</tr>
</tbody>
</table>

**FY 2011 President’s Budget Funding.** The EHR Way Ahead is funded in the FY 2011 President’s Budget. EHR Way Ahead funding to be applied totals $302.325 million, including Central IM/IT O&M ($120.3 million); Central IM/IT Procurement ($140.405 million); and Central IM/IT RDT&E ($41.620 million).
Beyond FY 2011, the Department programmed notional amounts that will be refined. For the FY 2012 submission, the Department expects to submit a refined and fully funded EHR budget request, reflecting decisions based on a completed AoA and approved Acquisition Decision Memorandum.

V. CONCLUSION

A structured, deliberate approach is critical for the Department to succeed in a stabilization and modernization effort of this magnitude. The funding for FY 2010 and 2011 has been identified. The next milestone will be the issuance of the result of the AoA. Input from industry may be sought through formal Requests for Information, allowing the Department to leverage private sector subject matter expertise to inform technical strategies.

The Department appreciates the guidance, patience and support of the Committees, as we move toward EHR modernization to better support the healthcare needs of our beneficiaries.