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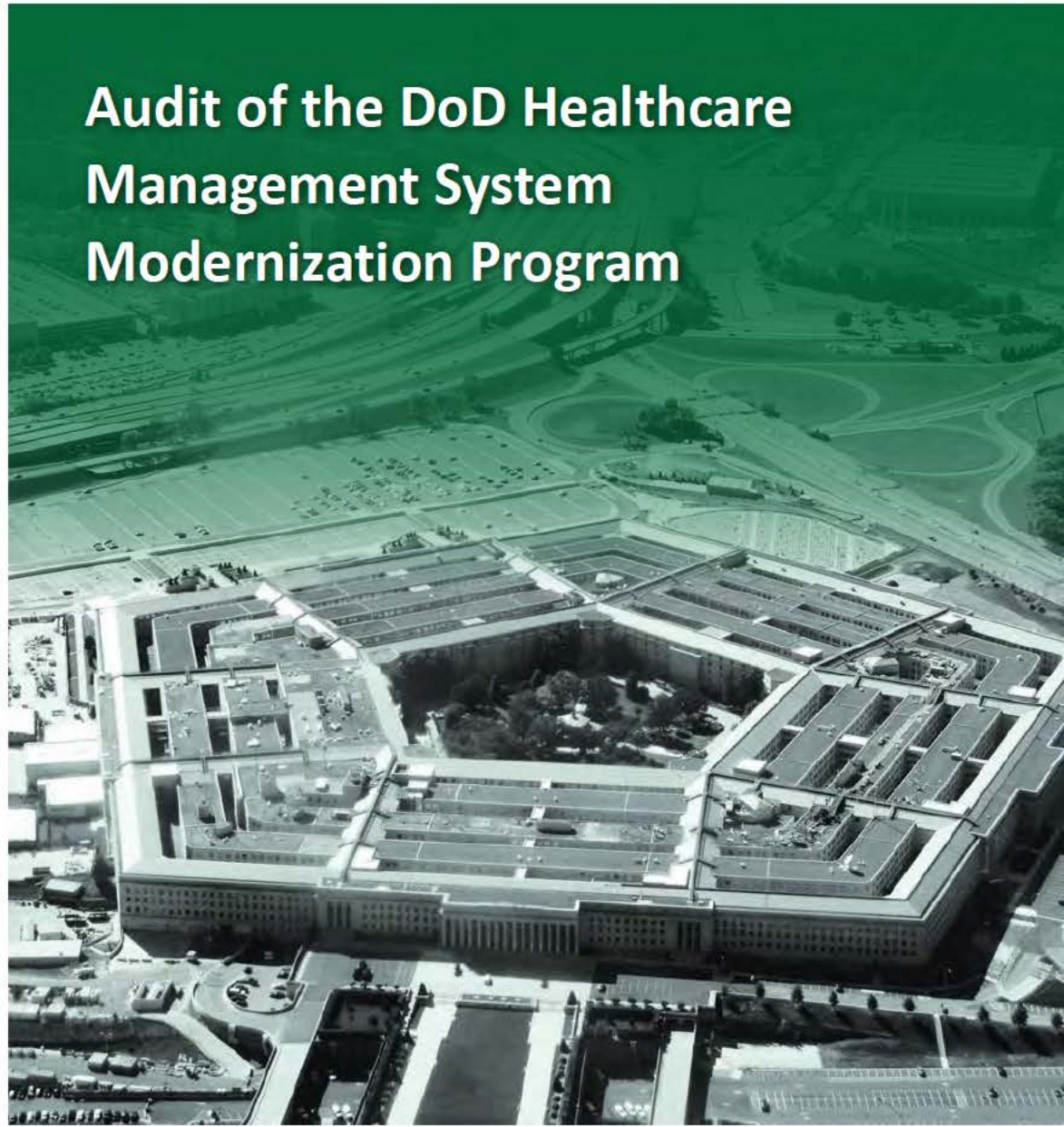
INSPECTOR GENERAL

U.S. Department of Defense

MAY 31, 2016



Audit of the DoD Healthcare Management System Modernization Program



INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

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INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

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Results in Brief

Audit of the DoD Healthcare Management System Modernization Program

May 31, 2016

Objective

We determined whether the DoD had approved system requirements for the DoD Healthcare Management System Modernization (DHMSM) program and whether the acquisition strategy was properly approved and documented.

Finding

The DHMSM is a new electronic healthcare record (EHR) system that seeks to support the DoD mission to provide high-quality healthcare to DoD beneficiaries. The integrated system will replace DoD legacy Military Health Systems and provide capabilities to promote efficiencies in healthcare professionals' work.

The DHMSM program had approved user-validated requirements and an approved and documented acquisition strategy. However, the DHMSM program mandated execution schedule may not be realistic for meeting the required initial operational capability date of December 2016.

The DHMSM program office identified risks, determined the risk probability of occurrence, and assessed the impacts to the cost, schedule, and performance. The DHMSM program office also developed and implemented mitigation plans based on the risk data, and actively monitored program risks. DoD guidance states that program managers must track risk and implement effective risk management. Risk management includes risk identification, key assumptions, probability of occurrence, consequences of occurrence if not mitigated

Finding (cont'd)

(in terms of cost, schedule, and performance), analysis of mitigation options, decisions about actions to mitigate risk, and execution of those actions.

While the DHMSM program office has identified risks and mitigation strategies, it is still at risk for obtaining an EHR system by the December 2016 initial operational capability date because of the risks and potential delays involved in developing and testing the interfaces needed to interact with legacy systems, ensuring the system is secure against cyber attacks, and ensuring the fielded system works correctly and that users are properly trained.

Recommendations

We recommend the Program Executive Officer for Defense Healthcare Management Systems perform a schedule analysis to determine whether the December 2016 initial operational capability deadline is achievable and continue to monitor DHMSM program risks and report to Congress quarterly on the progress of the program.

Management Comments and Our Response

The Program Executive Officer for Defense Healthcare Management Systems neither agreed nor disagreed with the recommendation to perform a schedule analysis to determine whether the December 2016 initial operational capability deadline was achievable. The program office is confident that it will achieve initial operational capability later this year in accordance with the National Defense Authorization Act. However, the Program Executive Officer did not provide documentation to support his statement. Therefore, we ask that the Program Executive Officer reconsider and perform a schedule analysis to determine whether the initial operational capability deadline is achievable. The Program Executive Officer will continue to monitor risks pursuant to the approved Risk Management Plan, in coordination with the Under Secretary of Defense for Acquisition, Technology, and Logistics and other appropriate DoD officials. The program office will conduct regular quarterly briefings for the Congressional Defense committees on the progress of the DHMSM program, including potential risks to the program.

Recommendations Table

Management	Recommendations Requiring Comment	No Additional Comments Required
Program Executive Officer for Defense Healthcare Management Systems	1.a	1.b

Please provide Management Comments by June 30, 2016.



**INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500**

May 31, 2016

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY,
AND LOGISTICS
UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS
ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)
NAVAL INSPECTOR GENERAL

SUBJECT: Audit of the DoD Healthcare Management System Modernization Program
(Report No. DODIG-2016-094)

We are providing this report for review and comment. The DHMSM program has approved user-validated requirements and an approved and documented acquisition strategy. However, the DHMSM program execution schedule may not be realistic. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report. DoD Instruction 7650.03 requires that recommendations be resolved promptly. Comments from the Program Executive Officer for Defense Healthcare Management Systems did not address the specifics of Recommendation 1.a. Therefore, we request that the Program Executive Officer provide additional comments on Recommendation 1.a by June 30, 2016.

Please send a PDF file containing your comments to audasm@dodig.mil. Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9077 (DSN 664-9077).

A handwritten signature in blue ink, reading "Jacqueline L. Wicecarver".

Jacqueline L. Wicecarver
Assistant Inspector General
Acquisition and Sustainment Management

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Acronyms and Abbreviations

Introduction

Objective

We determined whether the DoD had approved system requirements for the DoD Healthcare Management System Modernization (DHMSM) program and whether the acquisition strategy was properly approved and documented. See Appendix A for a discussion of our scope and methodology and prior audit coverage related to the audit objectives.

Background

From 2001 through 2013, DoD spent almost \$1 billion with limited success, to modernize its legacy systems and develop an electronic health record (EHR) system. The EHR system will permit interoperable transferring and sharing of service members' electronic health information.

~~(FOUO)~~ On June 21, 2013, the Under Secretary of Defense for Acquisition, Technology, and Logistics established the DHMSM program to acquire and field a modernized EHR system that seeks to support the DoD mission to provide high-quality healthcare to DoD beneficiaries. The DHMSM is an acquisition category IA¹ Major Automated Information System intended to replace multiple legacy Military Health Systems² with a single, integrated capability. DHMSM is intended to address the current state of the Military Health System. DoD developed multiple healthcare legacy systems and data repositories, over decades, that need modernization to ensure and enable sustainability, flexibility, and interoperability for improved patient care. DHMSM will replace DoD legacy healthcare systems with a robust, commercial EHR system, while making minimal modifications to meet DoD requirements and providing capabilities to promote efficiencies in healthcare professionals work.

¹ Acquisition category IA is a system estimated to exceed \$165 million in FY 2014 constant dollars for all expenditures and increments, through deployment at all sites.

² For example, the Armed Forces Health Longitudinal Technology Application, Composite Health Care System (inpatient), and most components of the Theater Medical Information Program—Joint program. For a list of the applications and systems to be replaced by DHMSM, after it reaches Full Operational Capability, see Appendix C.

DHMSM Program Mission

~~(FOUO)~~ The DHMSM program officials stated that DHMSM is a modernized EHR designed to maintain complete, accurate medical records for military personnel (active duty, Guard, and Reserve), veterans, and beneficiaries. Medical records management is an essential part of patient care and a tool to maximize military readiness. When implemented, DHMSM will:

- ~~(FOUO)~~ support the availability of medical records for more than 9.6 million DoD beneficiaries and 153,000 military healthcare personnel globally;
- ~~(FOUO)~~ support the full range of military operations to DoD practitioners, wherever and whenever needed;
- ~~(FOUO)~~ collaborate with the DoD/Department of Veterans Affairs (VA) Interagency Program Office and the Defense Medical Information Exchange program office to ensure compatibility and interoperability with the standardized healthcare data framework and exchange standards; and
- ~~(FOUO)~~ improve the electronic exchange of medical and patient data between DoD, VA, commercial providers, and other healthcare practitioners.

~~(FOUO)~~ The DHMSM acquisition strategy divided the program into two segments to support deployment of the EHR system to the Military Health System enterprise, serving all active duty, Guard, Reserve, and beneficiaries:

- ~~(FOUO)~~ Segment 1:
 - ~~(FOUO)~~ deploys the EHR system to all medical and dental permanent-fixed facilities worldwide, which includes inpatient hospitals and medical centers, ambulatory care clinics, and dental clinics.
- ~~(FOUO)~~ Segment 2:
 - ~~(FOUO)~~ deploys the EHR system with the Joint Operational Medicine Information Systems³ to permanent and temporary operational environment platforms, including ships, submarines, and hospital ships; and
 - ~~(FOUO)~~ deploys the EHR system to temporarily deployed operational medical units, including theater hospitals, forward sites, aeromedical staging facilities, and aeromedical evacuation teams to support military operations abroad.

³ ~~(FOUO)~~ The Joint Operational Medicine Information Systems program office will lead efforts to implement an EHR at DoD expeditionary locations.

DHMSM Program Structure

Under Secretary of Defense for Acquisition, Technology, and Logistics

~~(FOUO)~~ The Under Secretary of Defense for Acquisition, Technology, and Logistics is the Defense acquisition executive and milestone decision authority for the DHMSM program.

Under Secretary of Defense for Personnel and Readiness

~~(FOUO)~~ The Under Secretary of Defense for Personnel and Readiness leads healthcare coordination with the VA.

Assistant Secretary of Defense for Health Affairs

~~(FOUO)~~ The Assistant Secretary of Defense for Health Affairs (ASD[HA]) approves DHMSM requirements.

Defense Health Agency

~~(FOUO)~~ The Defense Health Agency provides functional support to the DHMSM program in coordination with the Military Services and is the lead on developing functional requirements.

Program Executive Office for Defense Healthcare Management Systems

The Program Executive Office for Defense Healthcare Management Systems improves healthcare for the active duty military, veterans, and beneficiaries by modernizing the EHR for the Military Health System and establishing seamless medical data sharing between DoD, VA and the private sector. The Program Executive Office for Defense Healthcare Management Systems also provides quarterly reports to Congress on the cost and schedule of the program, milestones, and acquisition timelines. This office also provides management oversight of the following components that implement those missions:

- **Defense Healthcare Management System Modernization.** Acquires, tests, delivers, and successfully transitions to a state-of-the-market EHR system.
- **Defense Medical Information Exchange.** Provides technical solutions for seamless data sharing and interoperable EHRs that evolve with national standards.

- **DoD/VA Interagency Program Office.** Leads and coordinates DoD and VA adoption of and contribution to health data interoperability standards.
- **Joint Operational Medicine Information Systems.** Supports the planning, procurement, and deployment of the new EHR and follow-on theater capabilities to DoD expeditionary locations.

See Appendix B for the DHMSM oversight structure.

DHMSM Funding

The ASD(HA) fully funded the DHMSM program. DoD guidance⁴ requires full funding of acquisition programs in the current Future Years Defense Program. On June 29, 2015, the ASD(HA) certified that Defense Health Agency will fund the DHMSM program in the current Future Years Defense Program. The program executive office officials stated that the DHMSM program expended \$215.9 million for prior years FY 2013 through FY 2015. The DHMSM program is estimated to cost \$10.5 billion through FY 2032.

DHMSM Contracting

~~(FOUO)~~ On July 29, 2015, the Commander, Space and Naval Warfare Systems Command Headquarters, using full and open competition, awarded the DHMSM contract to Leidos, Inc. for \$4.3 billion. The contract directed the contractor to manage, develop, test, deploy, and sustain an EHR system across the DoD enterprise. When implemented, DHMSM will provide access to clinical data sources and, over time, become the primary source of clinical data for DoD.

The National Defense Authorization Act for FY 2014

~~(FOUO)~~ Public Law 113-66⁵ mandates the deployment of a modernized EHR software supporting clinicians by December 2016. The program achieves initial operational capability (IOC) when the unit or organization scheduled to receive the system has the ability to use and maintain it. The Under Secretary of Defense for Acquisition, Technology, and Logistics will approve limited fielding IOC when the DHMSM program successfully completes both developmental test and evaluation and an operational assessment.

⁴ DoD Instruction 5000.02, Enclosure 10: Cost Estimating and Reporting, section 2, "Cost Estimation," January 7, 2015.

⁵ Public Law 113-66, "The National Defense Authorization Act for Fiscal Year 2014," December 2013.

Review of Internal Controls

DoD Instruction 5010.40⁶ requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. The milestone decision authority internal controls over the requirements and acquisition strategy development and approval processes were effective as applied to the audit objectives. DHMSM program officials made sure that requirements and acquisition strategy were defined, documented, and approved before the request for proposal and contract award decisions were made in accordance with DoD guidance⁷ and the Joint Capabilities Integration and Development System Manual.⁸ We will provide a copy of this report to the senior official(s) responsible for internal controls in the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.

⁶ DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

⁷ DoD Instruction 5000.02, "Operation of the Defense Acquisition System," January 7, 2015.

⁸ Joint Capabilities Integration and Development System Manual, "Manual for the Operation of the Joint Capabilities Integration and Development System," January 19, 2012. In February 2015, the Manual was updated; however, the requirements were approved in July 2014. For this report, the 2012 Manual's criteria were applicable.

Finding

DHMSM Requirements and Acquisition Strategy Were Properly Approved

The DHMSM program had approved user-validated requirements and an approved and documented DHMSM acquisition strategy. However, the DHMSM program mandated execution schedule may not be realistic for meeting the required initial operational capability date of December 2016.

The DHMSM program office identified risks, determined the risk probability of occurrence, and assessed the impacts to the cost, schedule, and performance. The DHMSM program office also developed and implemented mitigation plans based on the risk data, and actively monitored program risks.

While the DHMSM program office has identified risks and mitigation strategies, it is still at risk of not obtaining an electronic healthcare record system by December 2016 because of the risks and potential delays involved in developing and testing the interfaces needed to interact with legacy systems, ensuring the system is secure against cyber attacks, and ensuring the fielded system works correctly and that users are properly trained.

DHMSM Requirements

~~(FOUO)~~ The DHMSM program had approved user-validated requirements.

DoD guidance⁹ states validated requirements provide the basis for defining the products acquired through the acquisition process and requires the program office to submit validated capability requirements documentation before releasing the request for proposals. The Functional Advisory Council¹⁰ developed requirements traceable to the Concepts of Operations (CONOPS) as specified in the Joint Capabilities Integration and Development System Manual.¹¹

DHMSM
program
had approved
user-validated
requirements.

⁹ DoD Instruction 5000.02, section 5b, "Relationship Between Defense Acquisition, Requirements, and Budgeting Processes" and Enclosure 1: Table 2, "Milestone and Phase Information Requirements," January 7, 2015.

¹⁰ ~~(FOUO)~~ The Functional Advisory Council includes the Service Chief Medical Information Officers, membership from the Joint Staff, Clinical and Business Information Management, and Force Health Readiness and Protection.

¹¹ Joint Capabilities Integration and Development System Manual, Enclosure A: Identification of Capability Requirements and Capability Gaps, section 3, "Identification of Capability Requirements," January 19, 2012.

(FOUO) The Office of ASD(HA) created four medical CONOPS. According to the acquisition strategy, the Joint Requirements Oversight Council approved each of the CONOPS. The following four CONOPS establishes the foundation of the DHMSM program:

- Health Readiness, January 21, 2010;
- Force Health Protection, November 17, 2011;
- Health Service Delivery, February 22, 2011; and
- Health System Support, February 22, 2011.

(FOUO) The Defense Health Agency Functional Advisory Council reviewed the CONOPS and developed the user requirements based on the medical capabilities that would serve the functional interest of the Military Services. Using the established CONOPS, the Functional Advisory Council reviewed all of the detailed medical capabilities and identified and validated 60 DHMSM functional user requirements. Throughout the requirements review and development process, the DHMSM program office and the Functional Advisory Council introduced the DHMSM user requirements to industry through various methods. These methods included:

- four industry days from October 2013 through June 2014;
- three draft requests for proposals from January 2014 through June 2014;
- town hall meetings that resulted in more than 600 comments for the request for proposals; and
- responses to questions and clarification requests between industry and the DHMSM program office.

(FOUO) The ASD(HA) approved the user-validated functional requirements on July 8, 2014. On August 22, 2014, the Under Secretary of Defense for Acquisition, Technology, and Logistics approved the release of the request for proposals. The contracting officer released the request for proposals on August 25, 2014, to procure a system that meets the validated user requirements.

DHMSM Acquisition Strategy

(FOUO) The milestone decision authority approved the DHMSM acquisition strategy on August 14, 2014. The approved acquisition strategy supported the August 22, 2014, decision to proceed with a request for proposal. Subsequently, the program manager updated the acquisition strategy to support the contract award decision. The milestone decision authority approved the updated acquisition strategy

(FOUO)
The milestone
decision authority
approved the
DHMSM acquisition
strategy.

(FOUO) on July 27, 2015. DoD guidance¹² requires the program manager to prepare and obtain approval of the acquisition strategy before the request for proposal decision and to update the strategy as necessary for subsequent program decisions. In addition, the DoD guidance requires the program manager to execute the approved acquisition strategy and manage program risks on a realistic program schedule.

(FOUO) Although DoD guidance states that the acquisition strategy should be executed on a realistic schedule, it does not define “realistic.” We define realistic as events achievable within the planned milestone dates. For example, the DHMSM program schedule included the contract award as an event to be accomplished by fourth quarter FY 2015. The DHMSM contract was awarded in July 2015, which we consider a realistic scheduled event.

DHMSM Acquisition Approach Approved and Documented

(FOUO) The DHMSM program manager developed and documented the overall acquisition strategy to obtain and field a commercial EHR system that replaces multiple legacy systems and delivers an integrated EHR system. The DHMSM acquisition strategy explained how the program manager tailored the standard milestone decisions and information requirements to meet DoD¹³ regulatory and statutory requirements.

(FOUO) The DoD Instruction 5000.02 authorizes the milestone decision authority to tailor regulatory procedures consistent with sound business practice and the risks associated with the product being acquired. Instead of using the standard DoD milestones decisions, DHMSM program officials used “authority to proceed” decisions. For example, instead of the milestone decision authority approving entry into engineering and manufacturing development, the program received approval to proceed to contract award. The DHMSM acquisition approach relied on the following six documents to provide the information required in the DoD Instruction 5000.02 for program execution:

- (FOUO) acquisition strategy;
- (FOUO) business case;
- (FOUO) engineering master plan;
- (FOUO) cost and benefit analysis;
- (FOUO) test and evaluation master plan; and
- (FOUO) deployment, training, and change management plan.

¹² DoD Instruction 5000.02, Enclosure 1: Table 2. “Milestone and Phase Information Requirements;” and Enclosure 2: Program Management, section 6a, “Acquisition Strategies,” January 7, 2015.

¹³ DoD Instruction 5000.02, Enclosure 1: Table 2. “Milestone and Phase Information Requirements,” January 7, 2015.

DHMSM Program Schedule May Be Unrealistic

(FOUO) The DHMSM schedule may not achieve the IOC date. DoD guidance¹⁴ requires the acquisition strategy to establish a realistic schedule to deliver the system. However, Public Law 113-66¹⁵ directs the Secretary of Defense to deploy a modernized EHR system by December 2016. DHMSM program officials stated that they incorporated the December 2016 mandate into the acquisition strategy without performing a schedule analysis to demonstrate whether December 2016 was achievable for the system IOC. The Program Executive Officer for Defense Healthcare Management Systems should perform a schedule analysis to determine whether the December 2016 IOC deadline is achievable.

Independent Analyses Do Not Support Planned Initial Operational Capability Date

(FOUO) DoD guidance¹⁶ requires a component cost estimate, program support assessments, and an independent cost estimate be performed for all major defense programs. The DHMSM component cost estimate, a program support assessment and the independent cost estimate show the DHMSM program is at risk for not meeting the required IOC date. The component cost estimate and the program support assessment were performed before contract award. However, the independent cost estimate was performed after contract award.

Naval Center for Cost Analysis

(FOUO) On April 3, 2015, the Naval Center for Cost Analysis completed a Component Cost Estimate at the request of the DHMSM program office. The Naval Center for Cost Analysis based its estimate on the DHMSM Cost Analysis and Requirements Description dated November 2014. The Naval Center for Cost Analysis concluded the DHMSM program would require [REDACTED]
[REDACTED]

Deputy Assistant Secretary of Defense for Systems Engineering

(FOUO) In August 2015, the Deputy Assistant Secretary of Defense, Systems Engineering, and Major Program Support office briefed its DHMSM schedule risk assessment results. Support office personnel stated the DHMSM program schedule is executable; however, the schedule risk assessment shows a two to four month slip to the IOC date. The Support Office personnel further stated concerns about the DHMSM schedule but believe it may be achievable if DHMSM system customization is kept to a minimum. Support Office personnel will perform an updated schedule risk assessment after the DHMSM Integrated Master Schedule planned for March 2016 is completed.

¹⁴ DoD Instruction 5000.02, Enclosure 2: Program Management section 6a, "Acquisition Strategies," January 7, 2015.

¹⁵ Public Law 113-66, "The National Defense Authorization Act for Fiscal Year 2014," December 2013.

¹⁶ DoD Instruction 5000.02, Enclosure 3: "System Engineering" and Enclosure 10: "Cost Estimating and Reporting," January 7, 2015.

Director, Cost Assessment and Program Evaluation

(FOUO) In October 2015, the Director, Cost Assessment and Program Evaluation office prepared a briefing that addressed its cost and schedule positions for the DHMSM program. The Director, Cost Assessment and Program Evaluation office personnel stated that they briefed the results to the milestone decision authority.

[REDACTED]

DHMSM Program at Risk of Not Meeting Initial Operational Capability

(FOUO) The DHMSM program office is at risk for obtaining an EHR system by the December 2016 IOC date because of the risks and potential delays involved in developing and testing the interfaces needed to interact with legacy systems, ensuring the system is secure against cyber attacks, and ensuring the fielded system works correctly and that users are properly trained. DoD guidance¹⁷ states that program managers must track risk and implement effective risk management. Risk management includes risk identification, key assumptions, probability of occurrence, consequences of occurrence if not mitigated (in terms of cost, schedule, and performance), analysis of mitigation options, decisions about actions to mitigate risk, and execution of those actions.

The DHMSM program office is at risk for obtaining an EHR system by the December 2016 IOC date.

(FOUO) The DHMSM program office identified risks, determined the risk probability of occurrence, and the impacts to the cost, schedule, and performance. The DHMSM program office also developed and implemented mitigation plans based on the risk data, and actively monitored program risks. As of January 7, 2016, the DHMSM program office had 39 open risks shown in Table 1 on the following page.

¹⁷ DoD Instruction 5000.02, Enclosure 2: Program Management, section 6d, "Risk Management," January 7, 2015.

~~(FOUO)~~ Table 1. DHMSM Program Risks

(FOUO) Type of Risk	Number of Risks	Risk Definition
High	7	Likely to cause a significant increase in cost, disruption of schedule, or degradation of performance
Moderate	20	May cause a moderate increase in cost, disruption of schedule, or degradation of performance
Low	12	Minimal or no current potential for increase in cost, disruption of schedule, or degradation of performance
Total	39	(FOUO)

Source: DHMSM Program Office

The DHMSM program office must continue to actively manage and mitigate program risks. The Program Executive Officer for Defense Healthcare Management Systems must continue to monitor DHMSM program risks and report to Congress quarterly on the progress of the DHMSM program.

Conclusion

~~(FOUO)~~ DoD guidance¹⁸ states a program will either successfully lead to a fielded capability or fail, based on the soundness of the capability requirements, the program affordability, and how well the acquisition strategy is executed. The ASD(HA) properly approved the DHMSM user-validated requirements, and the milestone decision authority properly approved and the program manager documented the acquisition strategy. The DHMSM acquisition strategy to acquire an EHR system that meets identified requirements is achievable; however, the approved schedule to achieve IOC by the December 2016 congressional deadline will be challenging, as determined by the Naval Center for Cost Analysis, Deputy Assistant Secretary of Defense for Systems Engineering, and the Director, Cost Assessment and Program Evaluation. The DHMSM program office established a risk management program that identifies, analyzes, prioritizes, mitigates, and monitors the DHMSM risks, and the program office has stated they intend to meet the December 2016 deadline. However, at this time, it is unknown whether the program office's efforts to mitigate identified risks are sufficient to ensure the program meets the IOC deadline.

¹⁸ DoD Instruction 5000.02, section 6a, "Development RFP Release Decision Point," January 7, 2015.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend the Program Executive Officer for Defense Healthcare Management Systems:

- a. Perform a schedule analysis to determine whether the December 2016 initial operational capability deadline is achievable.**

Program Executive Officer for Defense Healthcare Management Systems

The Program Executive Officer for Defense Healthcare Management Systems did not agree or disagree, stating that the DHMSM program's early engagement with industry reinforced the value of establishing a realistic deployment timeline that supports effective user adoption. The aggressive timeline was consistent with similar electronic healthcare record modernization efforts in the commercial industry. Independent assessments doubting the DHMSM program's ability to meet the December 2016 National Defense Authorization Act deadline relied largely on documentation completed before contract award. The July 2015 decision to acquire the Leidos product informed all subsequent schedule considerations. Pre-deployment testing of the new electronic healthcare record is nearing its end and the program office is confident that it will achieve initial operational capability later this year in accordance with the National Defense Authorization Act.

Our Response

~~(FOUO)~~ The Program Executive Officer did not address the specifics of Recommendation 1.a. As stated in the report, the Director, Cost Assessment and Program Evaluation, conducted an independent assessment after contract award. The assessment estimated that the DHMSM program would not meet initial operational capability until [REDACTED]

[REDACTED] Although the Program Executive Officer is confident that the DHMSM program will achieve initial operational capability by December 2016, he did not provide documentation to support his statement. Therefore, we ask that the Program Executive Officer reconsider and perform a schedule analysis to determine whether the initial operational capability deadline is achievable.

- b. Continue to monitor the DoD Healthcare Management System Modernization program risks and report to Congress quarterly on the progress of the program.**

Program Executive Officer for Defense Healthcare Management Systems

The Program Executive Officer for Defense Healthcare Management Systems did not agree or disagree, stating that regular quarterly briefings are conducted for the Congressional Defense Committees on the progress of the DHMSM program, including potential risks to the program. The Program Executive Officer continues to monitor risks pursuant to the approved Risk Management Plan, in coordination with the Under Secretary of Defense for Acquisition, Technology, and Logistics and other appropriate DoD officials.

Our Response

The Program Executive Officer addressed all specifics of the recommendation, and no further comments are required.

Director, Operational Test and Evaluation

Although not required to comment, the Director, Operational Test and Evaluation, stated that the root cause for the schedule risk was that the program manager was required to determine if DHMSM could communicate with legacy systems to ensure that the users were properly trained, the system could withstand cyber attacks, and the fielded system worked correctly. The only way to ensure those requirements were met was to test the system.

Our Response

We agree with the Director and have revised the report to state that the DHMSM program office is at risk for obtaining an electronic healthcare record system by the December 2016 initial operational capability date because of the risks and potential delays involved in developing and testing the interfaces needed to interact with legacy systems, ensuring the system is secure against cyber attacks, ensuring the fielding system works correctly, and that users are properly trained.

Appendix A

Scope and Methodology

We conducted this performance audit from June 2015 through January 2016 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.

To understand the DHMSM program, we conducted site visits and interviewed personnel from:

- Program Executive Office for Defense Healthcare Management Systems, Rosslyn, Virginia;
- DHMSM Program Office, Rosslyn, Virginia;
- Defense Health Agency, Falls Church, Virginia;
- Director, Cost Assessment and Performance Evaluation, Pentagon, Virginia;
- Naval Center for Cost Analysis, Washington D.C.; and
- Deputy Assistant Secretary of Defense (System Engineering), Pentagon, Virginia.

We collected, reviewed, and analyzed documents dated from January 21, 2010 through January 7, 2016. To determine whether the DoD had approved system requirements for DHMSM and whether the acquisition strategy was properly approved and documented, we reviewed:

- Health Readiness CONOPS, January 21, 2010;
- Health Service Delivery CONOPS, February 22, 2011;
- Health System Support CONOPS, February 22, 2011;
- Force Health Protection CONOPS, November 17, 2011;
- DHMSM Authority to Proceed Full Funding Certification Memorandum, June 29, 2015;
- Program Executive Office for Defense Healthcare Management Systems Risk Management Plan, March 19, 2014;
- DHMSM Requirements Definition Package, July 8, 2014;
- Acquisition Strategy for DHMSM, August 14, 2014 and July 27, 2015;
- DHMSM Component Cost Estimate, April 3, 2015;
- DHMSM Contract, July 29, 2015; and
- DHMSM Open Risks-Summary, January 7, 2016.

Additionally, we reviewed program planning and reporting documents and compared them to the policies and guidance in the following DoD issuances:

- DoD Instruction, 5000.02, “Operation of the Defense Acquisition System,” January 7, 2015;
- Joint Capabilities Integration and Development System Manual, “Manual for the Operation of the Joint Capabilities Integration and Development System,” January 19, 2012; and
- DoD Directive 5000.01, “The Defense Acquisition System,” November 20, 2007.

Use of Computer-Processed Data

We did not use computer-processed data to perform this audit.

Prior Coverage

During the last 5 years, the Government Accountability Office (GAO) issued 5 reports discussing DoD electronic health records. Unrestricted GAO reports can be accessed at <http://www.gao.gov>.

GAO

GAO-15-530, “Outcome-Oriented Metrics and Goals Needed to Gauge DOD’s and VA’s Progress in Achieving Interoperability,” August 13, 2015

GAO-14-302, “VA and DoD Need to Support Cost and Schedule Claims, Develop Interoperability Plans and Improve Collaboration,” February 27, 2014

GAO-13-413T, “Long History of Management Challenges Raises Concerns about VA’s and DOD’s New Approach to Sharing Health Information,” February 27, 2013

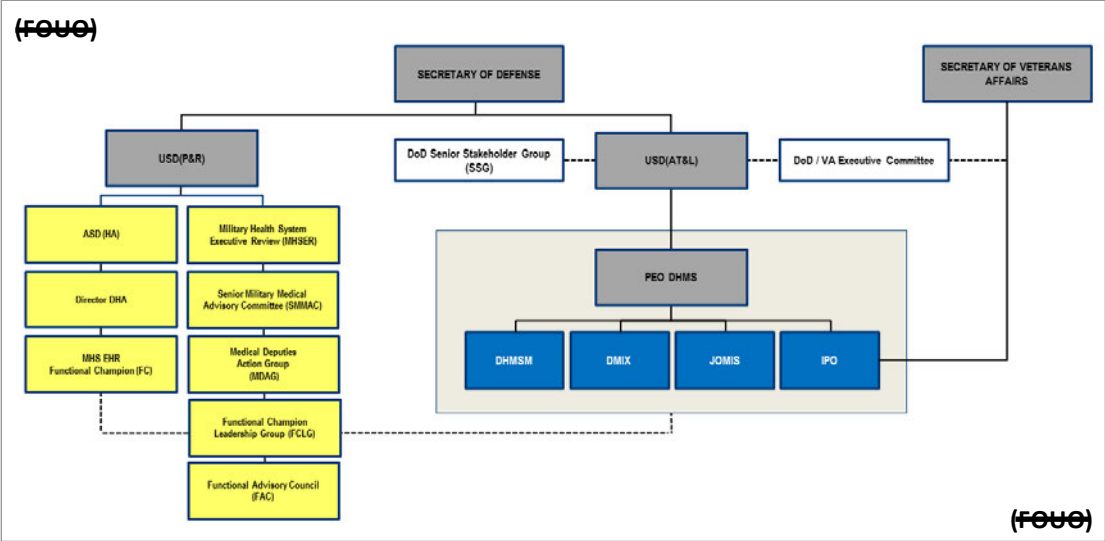
GAO-12-992, “Department-Level Actions Needed to Assess Collaboration Performance, Address Barriers, and Identify Opportunities,” September 28, 2012

GAO-11-265, “DOD and VA Should Remove Barriers and Improve Efforts to Meet Their Common System Needs,” February 2, 2011

Appendix B

(FOUO) DHMSM Program Oversight Structure

Figure.



Source: DHMSM Acquisition Strategy

Appendix C

Healthcare Applications and Systems to be Replaced by DHMSM at Full Operational Capability

Table 2.

System Number	System Name
DHA: (b) (5)	

Table 2. (cont'd)

System Number	System Name
[Redacted Table Content]	

DHA: (b) (5)

Table 2. (cont'd)

System Number	System Name
DHA: (b) (5)	

Table 2. (cont'd)

System Number	System Name
DHA: (b) (5)	

Source: DHMSM Program Office

Management Comments

Program Executive Officer for Defense Healthcare Management Systems



**DEFENSE HEALTHCARE MANAGEMENT SYSTEMS
PROGRAM EXECUTIVE OFFICE**
1700 NORTH MOORE STREET, ROSSLYN, VIRGINIA, 22209

April 26, 2016

MEMORANDUM FOR: INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Audit of the DoD Healthcare Management System Modernization Program (Project No. D2015-D000AE-0197.000)

Included with this memo is the Program Executive Office Defense Healthcare Management Systems (PEO DHMS) response to the recommendations presented in "Audit of the DoD Healthcare Management System Modernization Program (Project No. D2015-D000AE-0197.000)."

If you have any questions, my point of contact on this audit is [REDACTED], who can be reached at [REDACTED] or at [REDACTED]

Sincerely,

Christopher A. Miller
PEO DHMS

Program Executive Officer for Defense Healthcare Management Systems (cont'd)

**PEO DHMS Response to Recommendations in DODIG Draft Report
"Audit of the DoD Healthcare Management System Modernization Program"
dated April 1, 2016 (Project No. D2015-D000AE-0197.000)**

Recommendation 1a: The PEO DHMS should perform a schedule analysis to determine whether the December 2016 initial operational capability deadline is achievable.

Response: DHMSM's early engagement with industry reinforced the value of establishing a realistic deployment timeline that supports effective user adoption. Our aggressive timeline is consistent with similar EHR modernization efforts in the commercial industry. Independent assessments doubting the DHMSM program's ability to meet the December 2016 NDAA deadline relied in large part on documentation completed before contract award. The July 2015 decision to acquire the Cerner/Leidos product informed all subsequent schedule considerations. Pre-deployment testing of the new EHR is nearing its end, and we remain confident we will achieve Initial Operational Capability (IOC) later this year in accordance with the NDAA.

Recommendation 1b: PEO DHMS should continue to monitor the DoD Healthcare Management System Modernization program risks and report to Congress quarterly on the progress of the program.

Response: PEO DHMS conducts regular quarterly briefings for the Congressional Defense Committees (House and Senate Appropriations Committees, House and Senate Armed Services Committees) on the progress of the DHMSM program, including potential risks to the program. PEO DHMS continues to monitor risks pursuant to the approved Risk Management Plan, in coordination with the Under Secretary of Defense (AT&L) and other appropriate DoD officials.

Director, Operational Test and Evaluation

OPERATIONAL TEST
AND EVALUATIONOFFICE OF THE SECRETARY OF DEFENSE
1700 DEFENSE PENTAGON
WASHINGTON, DC 20301-1700

APR 29 2016

MEMORANDUM FOR INSPECTOR GENERAL, UNITED STATES DEPARTMENT OF
DEFENSESUBJECT: Review of the Department of Defense (DOD) Inspector General (IG) Draft Audit
Report titled "Audit of the DOD Healthcare Management System Modernization
(DHMSM) Program"


I have reviewed the subject report dated April 1, 2016. I do not agree with your assertion on page 10 that "The DHMSM program office is at risk for obtaining an electronic health record (EHR) system by the December 2016 initial operational capability (IOC) date because of time needed to complete developmental testing and an operational assessment." As the attachment indicates, the current DHMSM schedule shows that the program manager plans to conduct the Operational Assessment (OA) in parallel with developmental testing of the Bronze and Cobalt phases of the program; hence, the OA is not on the limiting path.

Furthermore, it is also not the case that the need to conduct developmental testing in and of itself is causing DHMSM program schedule risk. The root cause of the schedule risk is not testing, but the fact that the program manager needs to ensure that DHMSM can communicate with legacy systems using more than 20 new interfaces, ensure that users are properly trained on the system, ensure the system is capable of withstanding cyber attacks, and ensure the fielded version of the system works correctly. The only way to ensure these things is to test the system.


Consequently, I recommend you change the above quoted statement to say: "The DHMSM program office is at risk for obtaining an EHR system by the December 2016 IOC date because of the risks and potential delays involved in developing and testing the interfaces needed to interact with legacy systems, ensuring the system is secure against cyber attacks, and ensuring the fielded system works correctly and that users are properly trained to operate it."

J. Michael Gilmore
DirectorAttachment:
As stated

Director, Operational Test and Evaluation (cont'd)



DHMSM Testing Schedule



DHA: (b) (4), (b) (5)

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Distribution B: Distribution authorized to U.S. Government Agencies only; Other requests for this document shall be referred to DHMS

PEO DHMS

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Acronyms and Abbreviations

ASD(HA)	Assistant Secretary of Defense for Health Affairs
CONOPS	Concepts of Operation
DHMSM	Defense Healthcare Management System Modernization
EHR	Electronic Healthcare Record
IOC	Initial Operational Capability
VA	Department of Veterans Affairs



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