DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF INSPECTOR GENERAL

Office of Audits and Evaluations

DEPARTMENT OF VETERANS AFFAIRS

DMLSS Supply Chain Management System Deployed with Operational Gaps That Risk National Delays

REVIEW | REPORT #20-01324-215 | NOVEMBER 10, 2021

MISSION

The mission of the Office of Inspector General is to serve veterans and the public by conducting meaningful independent oversight of the Department of Veterans Affairs.

In addition to general privacy laws that govern release of medical information, disclosure of certain veteran health or other private information may be prohibited by various federal statutes including, but not limited to, 38 U.S.C. §§ 5701, 5705, and 7332, absent an exemption or other specified circumstances. As mandated by law, the OIG adheres to privacy and confidentiality laws and regulations protecting veteran health or other private information in this report.

Report suspected wrongdoing in VA programs and operations to the VA OIG Hotline:

www.va.gov/oig/hotline

1-800-488-8244

Executive Summary

VA manages about $10 billion each year in medical supplies and equipment inventory.[1] Prior OIG reports have highlighted the need for VA to address deficiencies with its aging supply chain management system to help ensure that supplies and equipment are available when and where they are needed for patient care and safety.[2] Following these reports and in response to prior challenges with updating VA's information technology (IT) systems, the then VA Secretary signed two decision memos emphasizing the need to transform VA's supply chain management. In a 2018 decision memo, VA selected the Captain James A. Lovell Federal Health Care Center in North Chicago, Illinois (Lovell), to be a pilot site for the Defense Department's Defense Medical Logistics Standard Support (DMLSS) System because of the site's unique standing as a joint VA and Defense Department medical facility serving both veterans and active-duty military personnel.[3] In a March 2019 decision memo, VA directed the enterprise-wide deployment of DMLSS throughout the Veterans Health Administration (VHA) to modernize and standardize its supply chain management processes and replace up to 12 healthcare legacy systems and their functionalities.[4] The deployment of the DMLSS system is expected to cost $2.2 billion over 15 years.[5]

The VA Office of Inspector General (OIG) reviewed VA's oversight and coordination of the implementation of the DMLSS system at Lovell to identify any functionality or management challenges that could affect future deployments.[6]

What the Review Found

The OIG found operational gaps in the initial deployment of the DMLSS system that should be addressed to avoid reoccurrence and delays at future sites. The DMLSS system did not meet

[1] VA, *Enterprise Supply Chain Modernization (ESCM) Implementation Plan: DMLSS/LogiCole IOC to Full Deployment*, January 10, 2019. The plan states that the $10 billion for VHA's supply chain consists of $5 billion for consumable supplies (expendable supplies that are disposable items typically used one time) and $5 billion in equipment costs (nonexpendable supplies that cost $300 or more, or have a life expectancy of two years or more).

[2] Reports are listed in appendix A.

[3] VA memo, "Decision Document—Enterprise-wide Adoption of a VA Health Care Logistics and Supply Chain Solution (VIEWS #62001)," July 20, 2018, signed by VA Secretary August 2, 2018.

[4] VA memo, "Decision Document—Enterprise-wide Adoption of Defense Medical Logistics Standard Support (DMLSS) as VHA's Health Care Logistics and Supply Chain Solution (VIEWS 151651)," March 11, 2019, signed by VA Secretary March 27, 2019.

[5] VHA, Veterans Affairs Logistics Redesign (VALOR) Defense Medical Logistics Standard Support (DMLSS)/LogiCole Life-Cycle Cost Estimate, ver. 1.0, May 10, 2019. This cost includes a transition to a cloud-based version of the DMLSS system called LogiCole.

[6] This report focuses on VA's initial implementation of the DMLSS system and does not consider whether VA's use of the DMLSS system to procure or acquire supplies and equipment complies with all applicable and relevant laws, rules, regulations, and policies.

more than 40 percent of the high-priority business requirements identified by Lovell staff as essential to successful operations when it deployed on August 4, 2020. As a result, Lovell staff had to develop work-arounds to maintain day-to-day operations. Although VA's acquisition framework policies outline a process to ensure the DMLSS system meets a facility's high-priority requirements, the VA Logistics Redesign (VALOR) program manager during the deployment at Lovell did not follow the framework. According to VA's acquisition framework, any VHA acquisition program expenditure that is estimated to exceed $100 million in one year shall comply with the acquisition framework policy.[7] The DMLSS system's deployment cost was estimated at about $176 million for fiscal year 2021 alone. The March 2019 decision memo from the VA Secretary that directs the enterprise-wide adoption of the DMLSS system also mandates use of the acquisition framework.[8] There is no language in the acquisition framework policy or decision memos that can reasonably be interpreted to mean that following these requirements is not mandatory.

The VALOR program office tasked with overseeing the effort also had a slow and unsteady start. The office was created in early 2019 to manage deployment of the DMLSS system but did not receive funding until January 2020. Additionally, VALOR did not effectively coordinate with key stakeholders, such as local staff and key national program offices, early enough in the assessment and development of functional requirements in order to minimize operational issues when deploying the DMLSS system at Lovell. VALOR has had six program managers since VA made the decision just over two years ago to adopt the DMLSS system. In March 2021, VHA officially appointed an executive director as the program manager.

The OIG finding of operational gaps that could affect future sites is supported by the following determinations:

- The DMLSS system did not meet nearly half of all high-priority needs at Lovell.
- VA did not follow its acquisition framework requirements.
- VALOR's establishment was delayed and lacked a supportive structure, and then ineffectively coordinated with stakeholders.

The DMLSS System Did Not Meet Nearly Half of All High-Priority Needs at Lovell

VA intended DMLSS to be a comprehensive, streamlined supply chain management system that could improve medical supply and equipment procurement and logistics. While VA expected to

[7] An acquisition program is defined by the acquisition framework policy as "a program that is achieving its goal through the purchase of a new or enhanced capability or capabilities."

[8] VA memo, March 2019 Decision Document; VA Handbook 7402, *VA Acquisition Program Management Framework (APMF) Procedures*, June 2, 2017.

have a modern, full-spectrum management system that would support VA's supply chain, the review team found that the DMLSS system did not meet 40 of 90 high-priority requirements (44 percent) for daily operations identified by Lovell staff.[9] As of September 23, 2020, these unmet requirements translated into functionality gaps in six operational areas: the management of (1) data and information sharing, (2) healthcare technology, (3) equipment, (4) facilities' maintenance and repairs, (5) finances, and (6) materials. Of these, the review team found that managing data and information sharing, healthcare technology, and equipment were the most deficient. Specifically, the DMLSS system did not meet any of Lovell's data and information-sharing requirements, could not adequately perform routine healthcare technology management functions, and lacked key functions needed to maintain accountability for IT equipment.

Of particular note, as of June 2021, the DMLSS system did not interface with VA's corporate data warehouse. Instead, staff at Lovell had to manually extract information to send to the national program offices for critical decision-making. The interface with the corporate data warehouse is also essential for VHA's ability to monitor and manage biomedical equipment, facility performance, and tracking recalls. For example, the classification of information in the corporate data warehouse allowed the program office to quickly locate VHA's ventilator fleet during the COVID-19 pandemic. VALOR leaders anticipated implementing a permanent solution for the asset classification operational gap in the next DMLSS system upgrade. DMLSS was also unable to provide certain features such as tracking preventive maintenance work orders for 3,000 medical equipment items, including defibrillators. Lovell staff had to track deferred maintenance manually, making close monitoring more difficult and increasing the risk of equipment malfunctions or failures.

VA Did Not Follow Its Acquisition Framework Requirements

As previously mentioned, because the cost of the DMLSS system met the threshold that subjects it to the requirements of the acquisition framework policy, VA should have validated that business requirements were identified, documented, and updated as necessary.[10] The framework also required the program office, VALOR, and VA's chief acquisition officer to demonstrate and validate that the DMLSS system's capabilities met identified business needs and all identified risks and issues had been resolved or a response strategy put in place.[11]

Instead of using a business requirements document for Lovell and future sites, the program manager responsible for the activation of the DMLSS system at Lovell skipped the first three phases, stating the March 2019 decision memo superseded some of the acquisition phases and

[9] Table 2 on page 15 outlines the 40 high-priority requirements not met by the DMLSS system and includes examples.

[10] VA Handbook 7402.

[11] VA's chief acquisition officer during the OIG's review retired in January 2021.

their respective requirements. The decision memo, however, required VA to follow the framework for the DMLSS system and to ensure all requirements were addressed or to identify alternative solutions.[12] VALOR also created a change control board to evaluate and approve users' requests for modifications to address their concerns about operations—a process that results in delayed remediation. This process did not replace or satisfy the framework's standards to develop, use, and update a business requirements document to foresee and ensure users' needs are met.

VALOR's Establishment Was Delayed and Lacked a Supportive Structure, and Then Ineffectively Coordinated with Stakeholders

Staffing and funding for the VALOR program office were not secured until after the initial planned Lovell deployment. Before this, VA entrusted DMLSS system implementation to a limited number of temporary staff borrowed from other offices, some of whom had a limited understanding of their roles and responsibilities, did not believe they had oversight responsibilities, and did not always guide Lovell staff. VA also initially created an organizational structure involving multiple offices with no decision-making authority, a move that delayed early efforts. The program office was eventually realigned from the VHA Procurement and Logistics Office to the Office of Acquisition, Logistics, and Construction (OALC) in December 2019. VALOR requested to officially become a directorate within the Assistant Under Secretary for Health for Support Services Division in May 2021.

Furthermore, at the outset, VALOR did not coordinate and involve other key national program offices and local staff early enough in the assessment and development of functional requirements to help identify needed capabilities and features and prevent operational problems. VALOR primarily focused on getting the DMLSS system's procurement and logistics functions ready for deployment. The VALOR executive director hired in March 2021 (who was the sixth program manager) stated that VALOR needed staff with the appropriate subject matter expertise to work with facility staff to determine and confirm operational requirement needs. Additionally, the executive director's assessment confirmed the review team's observations that VALOR did not have the staffing levels necessary to provide the required oversight of implementation.

Conclusion

VA failed to follow its acquisition framework and use the business requirements document at Lovell to ensure user needs were met. Instead, managers expected users to submit to the change control board any requests for modifications to meet their needs, prolonging fulfillment. As of June 2021, VALOR had not ensured the implementation of any of the 40 unmet high-priority business needs, and staff had to use 34 work-arounds to fill functional gaps. VALOR leaders

[12] VA memo, March 2019 Decision Document.

expect future DMLSS system upgrades or the upgrade to LogiCole to address the operational gaps discussed in this report. Inefficient work-arounds, including the continued use of VHA legacy systems, do not meet VA's intent to modernize its supply chain system. The unresolved deficiencies identified at Lovell will likely occur at subsequent sites, setting off a cascade of problems that could push back the recently accelerated rollout schedule developed after Congress inquired about a faster deployment.[13] Future sites would need to continue employing work-arounds for unaddressed DMLSS system issues, increasing costs, workload, and reliance on aging legacy systems. VHA program offices would also lack timely access to data needed for system-wide decision-making. More importantly, supply chain management breakdowns can impede the delivery of prompt, quality patient care and services and disrupt medical facility operations.

What the OIG Recommended

The OIG made three recommendations to improve DMLSS system implementation across VHA. Specifically, the OIG recommended that the program office revisit its oversight and deployment processes to bring the DMLSS system deployment in line with VA's acquisition framework policy, develop processes to better identify unmet high-priority business requirements and post-deployment challenges at Lovell and future sites so that solutions are implemented, and obtain adequate staffing and maintain stable leadership for the VALOR program office as implementation continues.

VA Management Comments

The principal executive director of OALC and the chief acquisition officer, in collaboration with VHA, concurred with all of the report's findings and recommendations and submitted action plans for recommendations 1 through 3. Appendix C provides the full text of their comments.

OIG Response

The OIG incorporated clarifying information in the report where appropriate from OALC's comments that were provided in coordination with VHA, particularly their 12 technical comments. The OIG updated the narrative in the results and recommendations section of the report to incorporate new information provided in VA's technical comments 2, 4, and 5.

[13] VALOR had initially planned for the deployment of the system at all VA medical centers by late 2028, but in October 2020 it developed a proposed accelerated schedule for the end of 2025. As of July 2021, however, future deployments could be delayed by litigation. The executive director of VALOR informed the OIG on June 29, 2021, that the DMLSS system implementation had been paused until further notice due to litigation regarding VA's engagement of the Defense Logistics Agency. The DMLSS system is dependent on the Defense Logistics Agency to purchase medical and surgical supplies, so an alternative is needed if VA is not given that support at future deployment sites.

The OIG added footnotes to address VA technical comments 1 and 12. VA's assertions are incorrect that the acquisition framework was optional because its personnel followed the Joint Incentive Fund legal requirements (comment 1) and VA Performance and Accountability Reporting System (comment 12). Regardless of other standards that may have been followed, the March 2019 decision memo from the VA Secretary states that DMLSS system deployment must follow the acquisition framework requirements. The OIG also added footnotes for VA technical comments 3, 6, 7, and 8 to reflect corrective actions that VA initiated after the OIG's review period. Lastly, the OIG added footnotes for VA technical comments 9, 10, and 11 because decisions and changes made, or planned, to the DMLSS system's requirements were not previously discussed with the OIG during its review.

The OIG will assess the satisfactory completion of these claimed actions in conjunction with its routine recommendation follow-up. Overall, the proposed corrective measures in VA's action plans appear to be responsive to the recommendations and the OIG will monitor the implementation of the recommendations until all stated actions are documented as completed.

LARRY M. REINKEMEYER
Assistant Inspector General
for Audits and Evaluations

Contents

Abbreviations

DMLSS	Defense Medical Logistics Standard Support
EHRM	Electronic Health Records Modernization
FY	fiscal year
GAO	Government Accountability Office
IT	information technology
JMLFDC	Joint Medical Logistics Functional Development Center
OALC	Office of Acquisition, Logistics, and Construction
OIG	Office of Inspector General
VALOR	VA Logistics Redesign
VHA	Veterans Health Administration

Introduction

Patient care and safety depend on supplies and equipment being efficiently ordered, tracked, and available for use whenever and wherever needed. A critical component in supply chain management is effective information technology (IT) that can meet VA's demands as the nation's largest integrated healthcare system.[14] VA manages about $10 billion each year in medical supplies and equipment inventory.[15] VA has attempted in the past to update IT systems, such as supply chain management, that support medical facility operations. However, governance and contractor performance problems have often caused VA to abandon these modernization efforts.

The VA Office of Inspector General (OIG) previously identified ongoing supply chain management inefficiencies and challenges.[16] In response to those reports and VA's IT challenges, which have been on the Government Accountability Office's (GAO) high-risk list since 2015, the then VA Secretary signed two decision memos in August 2018 and March 2019, emphasizing the need to transform VA's supply chain management.[17] The August 2018 memo directed the Veterans Health Administration (VHA) to adopt the Department of Defense's Defense Medical Logistics Standard Support (DMLSS) system at a pilot site. The March 2019 memo authorized the use of the system agencywide to update and standardize supply chain management processes. VA chose the DMLSS system in part to allow data sharing with Department of Defense systems and to interface with other systems that VA is modernizing, such as the electronic health record and financial management systems.

VA selected the Captain James A. Lovell Federal Health Care Center in North Chicago, Illinois, as the pilot site for DMLSS system implementation because of the center's unique standing as a joint VA and Department of Defense medical facility that serves both veterans and active-duty military personnel. The findings in this report detail the OIG's review of VA's oversight and

[14] "About VHA," Veterans Health Administration, accessed March 24, 2021, https://www.va.gov/health/aboutVHA.asp.

[15] VA, *Enterprise Supply Chain Modernization (ESCM) Implementation Plan: DMLSS/LogiCole IOC to Full Deployment*, January 10, 2019. This document states that VHA's supply chain consists of $5 billion for consumable supplies (expendable supplies that are disposable and typically used one time) and $5 billion in equipment costs (nonexpendable supplies that cost $300 or more, or have a life expectancy of two years or more).

[16] VA OIG, *Fiscal Year 2020 Inspector General's Report on VA's Major Management and Performance Challenges*, 2020. The 2020 VA OIG report on VA's major management and performance challenges also highlighted challenges VA has had in the planning and execution of new information technology systems. Appendix A lists prior VA OIG reports regarding IT and supply chain inefficiencies and the GAO High-Risk List.

[17] VA memo, "Decision Document— Enterprise-wide Adoption of a VA Health Care Logistics and Supply Chain Solution (VIEWS #62001)," July 20, 2018, signed by VA Secretary August 2, 2018; VA memo, "Decision Document—Enterprise-wide Adoption of Defense Medical Logistics Standard Support (DMLSS) as VHA's Health Care Logistics and Supply Chain Solution (VIEWS 151651)," March 11, 2019, signed by VA Secretary March 27, 2019.

coordination of the implementation of the DMLSS system at Lovell to identify any functionality and management challenges that could affect successful deployment at future VHA sites.[18]

Defense Medical Logistics Standard Support System Overview

The DMLSS system was developed as an integrated and comprehensive logistics and supply chain management system for the Department of Defense. The Department of Defense has used the DMLSS system for decades to meet its logistical support needs. VA adopted the DMLSS system as an off-the-shelf system to meet its own operational needs and to help improve the effectiveness, efficiency, and quality of healthcare delivery. The Joint Medical Logistics Functional Development Center (JMLFDC) maintains the system.[19] VA expects the DMLSS system to replace multiple legacy systems with a single, streamlined automated solution to manage supplies and equipment throughout their life cycles.[20] It is also designed to improve supply chain management processes, including the visibility of all related activities and the standardization of business processes and data across VA. The DMLSS system is supposed to provide VHA with integrated and comprehensive supply chain, equipment, pharmaceutical, and facilities management capabilities.[21]

The March 2019 decision memo stated VA's initial deployment of the DMLSS system would focus on enabling the Department of Defense's medical supply business processes to improve the efficiency of access, quality, and cost of health care. The memo required that an assessment of the DMLSS system's functionalities be conducted to ensure users' operational needs were met. These needs included areas beyond just purchasing and logistics, such as management of data and information sharing, and healthcare technology. It also stated that additional analysis of other available DMLSS system capabilities would be conducted to replace aging VA legacy supply chain systems. However, the memo did not elaborate on what analysis should be completed, and program officials stated that they could not conduct a thorough assessment of

[18] This report uses the term "implementation" to include all activities leading up to system activation and the term "deployment" includes all activities after activation. This report focuses on VA's initial implementation of the DMLSS system and does not consider whether VA's use of the DMLSS system to procure or acquire supplies and equipment complies with all applicable and relevant laws, rules, regulations, and policies.

[19] The Department of Defense has used the DMLSS system for approximately 20 years. DMLSS is expected to transition to an internet-based system in 2023 at the Department of Defense. Once this occurs, the DMLSS system will be known as LogiCole.

[20] VA, *ESCM Implementation Plan*; VA Handbook 7002, *Logistics Management Procedures*, January 8, 2020; VA Logistics Redesign (VALOR), *Capability Shortfall Assessment*, ver. 2.2, June 21, 2019; Joint Medical Logistics Functional Development Center (JMLFDC), *Defense Medical Logistics Standard Support (DMLSS) Overview*, ver. 1.3, April 30, 2019.

[21] VHA deployed the pharmacy module at Lovell in September 2020 on a one-year trial basis as a pilot to determine if it should be deployed VHA-wide. Additionally, VHA plans eventually to order patient-specific prosthetic items through the DMLSS system; however, at the time of this review there was no scheduled deployment date due to concerns about maintaining patient privacy. Facilities management refers to maintaining and repairing buildings and space management functions within VA medical facilities.

DMLSS functionality because VA had not been provided detailed information at that time on the functionality of the system.

Additionally, the memo stated VA should replace its legacy supply chain systems for safety and cost efficiency and ensure the new system integrates with the new electronic health record system being implemented.

VA expected the DMLSS system to

- replace up to 12 VHA legacy systems and their functionalities;[22]
- meet VHA user needs for medical supply chain management in a cost-effective manner;
- leverage the DMLSS/LogiCole system's ability to interface with the electronic healthcare record system; and
- advance compliance with a law, executive order, and guidance that promote interagency coordination and sharing for acquiring major equipment and technology, and require agencies to identify and implement methods that improve efficiency and effectiveness.[23]

VA estimated the DMLSS system implementation efforts would cost about $176 million for fiscal year (FY) 2021.[24] The system is set to be upgraded to LogiCole in a "technical refresh" that will transition DMLSS to a cloud-based system in 2022.[25] VHA-wide implementation, which includes the transition to LogiCole, was expected to cost a total of $2.2 billion over 15 years (FYs 2019–2033). This initial estimate included about $721 million for JMLFDC to assist in deployment, with approximately $412 million for recurring training and just over $357 million for program management. VA had accelerated its deployment schedule to shorten the completion of the deployment by three years, from FY 2028 to FY 2025. The full implementation of the DMLSS system, including sustainment activities such as continuous DMLSS system training, was expected to continue through the end of FY 2033 even with the accelerated deployment. As

[22] These legacy systems include the Generic Inventory Package, the Automated Equipment Management System/Medical Equipment Reporting System, and the Maximo asset and service management system.

[23] National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, § 320 (2003); Office of Management and Budget (OMB) Memo M-17-22, "Comprehensive Plan for Reforming the Federal Government and Reducing the Federal Civilian Workforce," April 12, 2017; Exec. Order No. 13781, 82 Fed. Reg. 50 (March 13, 2017).

[24] VHA, VALOR DMLSS/LogiCole Life-Cycle Cost Estimate, ver. 1.0, May 10, 2019.

[25] LogiCole is the cloud-based version of DMLSS and stores information on the internet instead of individual servers at each facility.

of April 2021, the VA Logistics Redesign (VALOR) office expected the system implementation to cost a total of $2.8 billion, about $600 million more than the initial estimate.[26]

Deployment Management

Starting in 2012, Lovell requested to implement the DMLSS system at their facility as part of a VA and Department of Defense initiative under the Joint Incentive Fund, which is special funding developed by Congress to encourage development of sharing initiatives and new approaches between both departments. Lovell originally developed and owned business requirements for the system, but two decision memos in August 2018 and March 2019 redirected implementation efforts from the facility to a VA program office. The March 2019 memo (reiterating the August 2018 decision memo) recommended the formation of that program office. VA therefore created the VALOR office in early 2019 to manage the implementation of the DMLSS system. However, VALOR did not begin hiring staff until December 2019 and did not receive funding until January 2020 even though the initial site deployment schedule indicated DMLSS was to be deployed at Lovell in October 2019. VALOR's program charter states that they are responsible for managing the interagency agreement between VA and the Department of Defense and for coordinating with JMLFDC, whose staff are expected to provide the technical expertise required to install, test, and perform post-deployment activities.[27] During the period of the OIG's review, VALOR was under the authority of VA's chief acquisition officer, who oversees compliance with VA's acquisition policies, discussed further below.[28] The program charter also states the chief acquisition officer has program decision authority and is responsible for overseeing data migration efforts and leading the overall coordination and implementation of the DMLSS system—aided by an executive steering committee.[29] As of August 2021, VA officials stated that VALOR had been moved under the assistant under secretary for health for support, and VALOR's executive director reports directly to that office.[30]

Deployment Schedule

VALOR initially planned to deploy the DMLSS system at Lovell in October 2019 and then at two additional sites in the state of Washington—the Mann-Grandstaff VA Medical Center and

[26] VA initially planned for DMLSS deployment to span 10 years from FY 2019 through FY 2028. On April 27, 2021, VALOR provided the OIG with a presentation titled, *DMLSS/LogiCole Deployment Activities, House Veterans Affairs Committee Briefing*, dated October 28, 2020, which showed that DMLSS deployment plans had been accelerated. The presentation estimated the total cost of the deployment at $2.8 billion and indicated that deployment activities would continue from FY 2020 through FY 2025, with sustainment activities starting in FY 2026 and continuing through FY 2033.

[27] VHA, Veterans Affairs Logistics Redesign (VALOR) Acquisition Program Charter, ver. 3.0, January 14, 2020.

[28] VHA, VALOR; VA Handbook 7402, VA Acquisition Program Management Framework (APMF) Procedures, June 2, 2017.

[29] VHA, VALOR Acquisition Program Charter.

[30] See VA technical comment 2 on page 45.

Puget Sound Health Care System—in December 2019. However, VALOR pushed back Lovell's deployment to August 2020 because financial system interfaces needed to be developed for the DMLSS system to be able to make purchases. Deployment does not mean the full DMLSS system is functional, but that specified system capabilities will be available for use at the facility.

VALOR also rescheduled the deployment of the system at the Mann-Grandstaff and Puget Sound sites to June and July 2021, respectively, because of the impact of the COVID-19 pandemic and to incorporate lessons learned from Lovell's deployment.[31] VALOR had initially planned for full implementation of the system at all 170 VA medical facilities by late 2028, but members of Congress clearly communicated to VA that they wanted a faster deployment.[32] On April 6, 2021, VALOR issued a memorandum with a new FY 2021–2022 deployment schedule. The memorandum stated that the synchronization of the DMLSS system deployment with the Electronic Health Records Modernization (EHRM) was a primary consideration for VALOR. VALOR's stated objective was to precede EHRM implementation by at least 120 calendar days but that in a limited number of locations, DMLSS system deployment will occur after EHRM deployment.[33] Furthermore, VALOR stated that the schedule was based on the VA Office of Electronic Health Record Modernization's published deployment schedule. As seen in table 1, VALOR planned, after Lovell, to deploy the system at 26 additional sites between June 2021 and June 2022.[34]

Table 1. Facility Deployment Dates for the DMLSS System

Facility name	Location	Initial planned deployment	Deployment delayed
1. Mann-Grandstaff VA Medical Center	Spokane, WA	December 2019	June 2021
2. VA Puget Sound Health Care System	Seattle, WA	December 2019	July 2021

[31] VALOR reported to the OIG on June 29, 2021, that deployment at these sites may be delayed by the litigation and pause in the deployment.

[32] Hearing on Building a More Resilient VA Supply Chain, Before the Senate Committee on Veterans' Affairs, 116th Cong. (June 9, 2020).

[33] The VALOR executive director stated that EHRM implementation needs patient care information residing in the DMLSS system and that was why the DMLSS system originally was supposed to be activated 120 days before the EHRM system. The new electronic health record system can be activated before the DMLSS system by extracting patient care information using health record legacy systems and then again from the DMLSS system when it is implemented—doubling the information extraction work from the different systems.

[34] As of July 2021, however, future deployments may be delayed by litigation. On June 29, 2021, the executive director of VALOR reported to the OIG that the DMLSS system implementation was on hold until further notice due to litigation related to VA's planned engagement with the Defense Logistics Agency as the new prime vendor for its purchase of medical and surgical supplies. The DMLSS system is dependent on the Defense Logistics Agency to purchase medical and surgical supplies, so an alternative is needed if VA is not given that support at future deployment sites.

Facility name	Location	Initial planned deployment	Deployment delayed
3. Roseburg VA Health Care System	Roseburg, OR	April 2021	August 2021
4. Chalmers P. Wylie Ambulatory Care Center	Columbus, OH	February 2021	October 2021
5. VA Northern Indiana Health Care System	Fort Wayne, IN	June 2021	November 2021
6. VA Southern Oregon Rehabilitation Center	White City, OR	March 2021	November 2021
7. VA Portland Health Care System	Portland, OR	May 2021	December 2021
8. Boise VA Medical Center	Boise, ID	April 2021	January 2022
9. Jonathon M. Wainwright Memorial VA Medical Center	Walla Walla, WA	March 2021	January 2022
10. Alaska VA Health Care System	Anchorage, AK	April 2021	January 2022
11. Chillicothe VA Medical Center	Chillicothe, OH	June 2021	February 2022
12. Cincinnati VA Medical Center	Cincinnati, OH	August 2021	February 2022
13. Dayton VA Medical Center	Dayton, OH	July 2021	February 2022
14. Aleda E. Lutz VA Medical Center	Saginaw, MI	July 2021	March 2022
15. Battle Creek VA Medical Center	Battle Creek, MI	July 2021	March 2022
16. John D. Dingell VA Medical Center	Detroit, MI	July 2021	March 2022
17. Ann Arbor VA Medical Center	Ann Arbor, MI	July 2021	March 2022
18. Louis Stokes Cleveland VA Medical Center	Cleveland, OH	July 2021	April 2022
19. Richard L. Roudebush VA Medical Center	Indianapolis, IN	August 2021	April 2022
20. Jesse Brown VA Medical Center	Chicago, IL	September 2021	May 2022
21. VA Illiana Health Care System	Danville, IL	September 2021	May 2022
22. Edward Hines Jr. VA Hospital	Hines, IL	September 2021	May 2022
23. Oscar G. Johnson VA Medical Center	Iron Mountain, MI	October 2021	June 2022
24. William S. Middleton Memorial Veterans Hospital	Madison, WI	October 2021	June 2022

Facility name	Location	Initial planned deployment	Deployment delayed
25. Clement J. Zablocki Veterans Affairs Medical Center	Milwaukee, WI	October 2021	June 2022
26. Tomah VA Medical Center	Tomah, WA	October 2021	June 2022

Source: VA ESCM Implementation Plan: DMLSS/LogiCole to Full Deployment, January 10,2019; VALOR–DMLSS Deployment Presentation, DMLSS Deployment Scenarios, EHRM Adjusted, September 9, 2020; and Fiscal Year 2021-2022 DMLSS Deployment Schedule Memorandum, April 06, 2021.

If VALOR is able to maintain the schedule above, it will have just over three years to deploy the DMLSS system at VHA's remaining 143 medical facilities and meet the accelerated deployment schedule end date of FY 2025.

VA's Acquisition Program Management Framework and the Business Requirements Document

As a result of several federal laws and regulations, VA mandated the implementation of its Acquisition Program Management Framework (acquisition framework) in May 2013 and issued a related directive and handbook outlining policies and procedures for the acquisition framework in June 2017.[35] This framework is intended "to provide a governed, repeatable, consistent, efficient, and transparent life cycle process for the management and oversight of acquisition programs that support the Department in executing its mission as effectively and efficiently as possible within fiscal and operational constraints."[36] The acquisition framework enhances VA's ability to acquire business capabilities within the established cost, schedule, and scope.

According to VA's acquisition framework, any VHA acquisition program expenditure "shall comply with APMF [acquisition program management framework]" if "the program is estimated to exceed $100M in one year."[37] The deployment of the DMLSS system is estimated to cost about $176 million for FY 2021 and over $2.2 billion in total, which exceeds the minimum expenditure threshold set by the policy. In addition, the March 2019 decision memo from the VA Secretary that directs the enterprise-wide adoption of the DMLSS system also mandates use of the acquisition framework.[38] This memo states that "OALC [Office of Acquisition, Logistics, and Construction] shall…ensure that the DMLSS/LogiCole Program uses…the VA Acquisition

[35] Services and Acquisition Reform Act of 2003 (SARA), Pub. L. No. 108-136, (2003); OMB Circular A-123, "Management's Responsibility for Enterprise Risk Management and Internal Control," July 15, 2016; FAR 34.2; VA Directive 7402, *VA Acquisition Program Management Framework (APMF) Policy*, June 2, 2017; VA Handbook 7402.

[36] VA Directive 7402; VA Handbook 7402.

[37] VA Handbook 7402. An acquisition program is defined by the acquisition framework policy as "a program that is achieving its goal through the purchase of a new or enhanced capability or capabilities."

[38] VA memo, March 2019 Decision Document; VA Handbook 7402.

Program Management Framework."[39] The acquisition framework policy also states that preexisting acquisition programs (programs that are retroactively onboarded after the initial planning phases) that also meet the framework criteria must also comply with the policy.[40] There is no language in the acquisition framework policy or decision memo that can reasonably be interpreted as saying that following these requirements is not mandatory. Figure 1 details the acquisition framework process that consists of five phases and includes key "decision events."

Figure 1. *Acquisition Program Management Framework (APMF) phases and decision events.*

Source: VA Handbook 7402.

Note: The Pre-APMF stage refers to relevant program planning activities that occur before decision event 0, which is when the program demonstrates it aligns to a strategic goal, has been allotted funding, and has completed required program documentation. Key decision events 0–5 are milestone reviews that occur after each phase in the acquisition framework process. The program decision authority assesses the program to determine if exit criteria have been met to enter subsequent phases.

The framework requires oversight activities early in the acquisition planning process. The *Verify* phase "verifies that an approach is achievable and appropriate given the level of funding received during budgeting" and at decision event 1, the program must verify the legitimacy of the need to fill a capability gap and the readiness to begin acquisition planning activities.[41] During the *Initiate* phase, VA staff are required to develop key planning documents to effectively define the scope, identify resources, and plan the acquisition. One key planning activity is the development of the business requirements document that outlines the functional requirements, including users' needs and expectations.[42]

In the *Obtain* phase, VALOR and the chief acquisition officer are required to obtain confirmation that the system has met identified business needs and that all identified risks and issues have been resolved or a response strategy is in place. During the *Deploy* phase, the system is deployed, and VALOR and the chief acquisition officer also need to validate the system met identified business needs and all identified risks and issues were resolved or that there is a response strategy in place. Lastly, the *Operate & Maintain* phase involves operating and

[39] See VA technical comment 1 on page 45. VALOR claims that the DMLSS system adhered to all applicable requirements under the Joint Incentive Fund, the controlling authority for piloting the DMLSS system at Lovell prior to the VA Secretary's August 2018 and March 2019 decision memos. The OIG maintains its position that when the VA Secretary signed the March 2019 decision memo to deploy the DMLSS system as VA's enterprise-wide supply chain solution, VA was required to ensure that all DMLSS system implementations, including the existing DMLSS system at Lovell, adhered to the acquisition framework policy requirements.

[40] VA Handbook 7402.

[41] VA Handbook 7402.

[42] VA Handbook 7402; VA Directive 7402.

maintaining the system by monitoring ongoing performance and preventing failures through routine maintenance until the system is no longer in use.[43]

Lovell's High-Priority Business Requirements

As mentioned earlier, a business requirements document should be developed during the *Initiate* phase of the acquisition framework. Additionally, the business requirements document should be evaluated and updated as necessary to ensure all requirements are identified and addressed. The proper and timely identification of business requirements allows for the early detection of functionality gaps and the development of adequate solutions, either within the system itself or through the use of mitigation strategies. A clear and well-developed business requirements document is important to implementation planning. VALOR's Program Management Plan states that the business requirements document "[d]etails the critical activities of an enterprise that must be performed to meet the organizational objective(s) while remaining solution independent including the documentation of customer needs and expectations."[44]

In August 2018, VHA supply chain officials, the Lovell medical facility director, the head of JMLFDC, and various other Lovell and Department of Defense personnel developed Lovell's business requirements document establishing the system requirements for the deployment of the DMLSS system.[45] The document included 110 high-priority business requirements—capabilities and features that needed to be operational in the DMLSS system to fulfill VA's expectations. At the time of deployment in September 2020, Lovell staff deemed 90 of the 110 identified requirements as still necessary to the medical facility's operations. Figure 2 describes six major operational areas within which the 90 high-priority business requirements can be categorized.[46]

[43] VA Handbook 7402.

[44] VALOR, Defense Medical Logistics Standard Support (DMLSS)/LogiCole Enterprise Deployment, Program Management Plan, December 2019.

[45] Lovell's business requirements document, August 2018, consolidated all of the changes and enhancements requested after the establishment of the business requirements in July 2012.

[46] More detailed information on the number of unmet requirements within each of these operational areas and examples are provided in table 2 of this report.

Figure 2. *High-priority business requirements classified by operational areas.*

Sources: OIG review of Captain James A. Lovell Federal Health Care Center Business Requirements Document (August 2018) and VA's website for the DMLSS Resource Center.

Change Control Board

In February 2020, VALOR established a change control board to evaluate and approve users' requests for modifications that address their concerns about operations. While this process does not replace the requirements for a business requirements document, the acquisition framework also does not prohibit VALOR from developing additional processes to mitigate implementation and deployment challenges.

Change control board solutions may include changes to the DMLSS system itself, or changes in facility practices or processes. Accordingly, program office personnel from Healthcare Technology Management, Finance, or other offices must identify their needs and submit change

requests to the board (which includes subject matter experts) for their evaluation and approval. If approved, the change requests are submitted to two more boards—the JMLFDC Defense Medical Logistics-Enterprise Solution Change Control Board (consisting of VA and Department of Defense senior service representatives) and then to the Joint Control Board (a JMLFDC-only board) for review and final approval before making the change in production. The VALOR change control board charter requires VALOR to track all approved changes.[47]

VALOR leaders expect all requests to follow this process for any business requirements that still need to be met after the deployment of the DMLSS system. From February 2020 through June 2021, the board received 35 change requests in areas such as data and information sharing, financial management, and materials management.[48] VALOR leaders planned to address some requests that have been approved for action with the LogiCole upgrade.[49]

[47] VA, VA Logistics Redesign (VALOR) Defense Medical Logistics Standard Support (DMLSS)/LogiCole Implementation, VALOR Change Control Board (ChCB) Charter, sec. 3, February 7, 2020.

[48] See figure 2 for a description of the six major operational areas.

[49] See VA technical comment 3 on page 46. VA claims that the change control board's evaluation of user-requested changes will ensure the standardization of business practices. Further, it stated it does not want to modify the DMLSS system to continue using VHA's current ineffective processes and, instead, plans to implement the best practices found within the DMLSS system to standardize processes nationally. Those plans were not detailed in the body of this report because these changes were not assessed by the team or fully implemented at the time of its review. They have been included in appendix C.

Results and Recommendations

Finding: Operational Gaps in the Initial Deployment of the DMLSS System Should Be Addressed to Avoid Reoccurrence and Delays at Future Sites

Deployment of the DMLSS system at the initial site had its challenges. The review team found that when the system deployed on August 4, 2020, the DMLSS system could not provide 40 of Lovell's 90 high-priority business requirements (44 percent) as reflected in table 2. Lovell staff employed work-arounds to perform key functions, such as manually extracting equipment information from the DMLSS system and sending it outside the system to facility managers and the national program office. This was due to the DMLSS system's inability to interface with the corporate data warehouse and provide standard automated information. VHA program offices and local managers need accurate, timely national information from the corporate data warehouse to provide oversight and make critical decisions. For example, the Healthcare Technology Management office requires that every medical device's nomenclature information (classifications) be put into the corporate data warehouse for standardization. Facility staff indicated that the collection and standardization of this information in the corporate data warehouse allowed the program office to quickly identify the number of items within VHA's ventilator fleet during the COVID-19 pandemic. Without this classification system and a metric to monitor compliance, categorization of medical devices could not be conducted nationally. Work-arounds as a result of the DMLSS system implementation issues, such as manual data entry, increase the risk of errors and the use of incomplete and inaccurate information. VALOR leaders anticipated implementing a permanent solution for the VA medical equipment asset classification operational gap in the next DMLSS upgrade.

Although VA's acquisition framework outlined a process to ensure the DMLSS system met the high-priority requirements necessary for it to function successfully, the VALOR program manager in place at the time of the Lovell deployment did not follow this process. The manager stated he skipped some critical phases specified in the framework because he interpreted the decision memo as authorizing him to bypass the first three acquisition framework phases and respective requirements, including updating the business requirements document and ensuring that user needs were met. The review team did not find language in VA's acquisition framework or the decision memo to indicate the DMLSS system deployment was exempt from VA acquisition framework requirements, and the team evaluated the deployment accordingly.[50]

VALOR was also behind schedule from the start in addressing requirements because VA did not establish VALOR in a timely fashion nor give the office the staffing or organizational support

[50] VA Directive 7402; VA Handbook 7402.

necessary for effective program management. In March 2021, VA hired an executive director for VALOR who is serving as the permanent VALOR program manager. The new executive director is the sixth DMLSS program manager in just over two years since VA decided to adopt the DMLSS system. VALOR did not coordinate with and involve other key national program offices, such as those overseeing healthcare technology and financial management, and local staff early enough in the assessment and development of functional requirements for the DMLSS system. For example, VA did not initially coordinate with the Healthcare Technology Management national program office to ensure that biomedical equipment used for patient care could be maintained or that the Finance national program office could initially use the DMLSS system to purchase expendable equipment and supplies for patients.

Functionality problems revealed during the deployment of the DMLSS system at Lovell can occur at other facilities if VA does not resolve these issues. VALOR does not plan to address any system performance gaps unless the program offices or users take the initiative to submit these unmet business requirements for review and approval through the change control board process. The acquisition framework does not prohibit this process. However, the change control board is not a replacement for developing the business requirements document and ensuring users' needs are met. By deferring remediation of the known performance gaps, VALOR did not ensure DMLSS system deployment at the initial site and at future sites would be successful. Although VALOR states that the DMLSS system is a government off-the-shelf, "as-is" product that has been used at the Department of Defense, it may not meet VA organizational needs unless DMLSS system changes and VA operational process changes are developed and implemented. These modifications may require policy changes as well.

Unaddressed issues could increase the risk that important business processes are interrupted, such as the ability to track maintenance of equipment used for patients. Staff may also incur overtime costs because of work-arounds to maintain operations and continue to use legacy systems that the DMLSS system was meant to replace—scattering needed information across multiple systems. This could eventually lead to program deployment goals not being met and delays in future deployments.

This finding discusses the following determinations:

- The DMLSS system did not meet nearly half of all high-priority needs at Lovell.
- VA did not follow its acquisition framework.
- Delays in establishing VALOR and its structure hampered deployment management.
- VALOR did not effectively coordinate DMLSS system deployment.

What the OIG Did

The review team assessed relevant information about VA's oversight and coordination of the implementation of the DMLSS system at Lovell to identify any functionality or management challenges that could affect future deployments. The team reviewed the business requirements document for Lovell and interviewed staff to assess the success of the deployment and implementation of the DMLSS system to meet VA's user needs. The review team also obtained and reviewed applicable VA, VHA, and system acquisition policies, procedures, memorandums, and guidelines. Additionally, the team interviewed staff from VA, VALOR, JMLFDC, and Lovell who were involved in the implementation of the system. Appendix B provides additional details on the audit's scope and methodology, including scope limitations related to the COVID-19 pandemic.

The DMLSS System Did Not Meet Nearly Half of All High-Priority Needs at Lovell

The DMLSS system was intended to be a comprehensive, streamlined system that could manage supplies and equipment throughout their life cycle and replace multiple legacy systems with only one system. VA expected to have a modern, full-spectrum management system that would support VA's supply chain. The system would allow VA to realize future acquisition and delivery methods and life cycle management efficiencies in the areas of medical supply and equipment purchasing and logistics (such as the ability to buy and receive items at the right time and place and to track equipment in order to maintain accountability and accurate inventory levels). It is also meant to facilitate VA-wide integration and data sharing with systems supporting its electronic health record and financial management systems. With the acquisition of the DMLSS system, VA expected to address multiple supply chain and information technology-related issues discussed in multiple government reports in prior years. These included the inability to produce high-quality data on supply chain utilization, the need to transform the management of the supply chain, and the high cost to maintain legacy information technology (IT) systems. As mentioned earlier, however, the review team found the system did not fully meet 40 of 90 high-priority requirements (44 percent) identified by Lovell staff as essential to successful operations. As shown in table 2, these unmet capabilities and features fell into six operational areas: management of data and information sharing, healthcare technology, equipment, facilities maintenance and repair, financial, and materials as of September 23, 2020.

Table 2. Unmet DMLSS System Requirements at Lovell by Operational Area (as of September 2020)

Operational area	High-priority business needs met	High-priority business needs not met	Total business needs	Percent not met
Data and information sharing	0	6	6	100%
Unmet requirements included functions to share information with the corporate data warehouse and National Acquisition Center; monitor and manage biomedical equipment; report on equipment, healthcare technology, and financial operations for national program office oversight; and track product recalls.				
Healthcare technology management	10	28	38	74%
Unmet requirements included functions to manage work orders for biomedical equipment and track maintenance work orders, equipment recalls, and preventive maintenance.				
Equipment management*	4	2	6	33%
Unmet requirements included functions to support perpetual equipment inventories of about 12,000 IT equipment items (such as laptops) and generate policy-compliant forms to track loaned equipment that also promote accountability for items.				
Facilities management	5	1	6	17%
The one unmet requirement was for the ability to control locks and keys for the facility in the DMLSS system.				
Financial management**	16	2	18	11%
Unmet requirements included the ability to transmit data from the financial management system to the DMLSS system.				
Materials management	15	1	16	6%
The one unmet requirement was for the ability to map the expendable supplies catalog with the prime vendor.				
Total	**50**	**40**	**90**	**44%**

Source: VA OIG assessment of Lovell staff responses to VA OIG questionnaire of which high-priority requirements were met, based on the Lovell business requirements document, as of September 2020.

**This item includes all nonexpendable equipment at the facility, with the greatest operational gaps identified as related to the management of IT equipment such as laptops and monitors.*

***Users considered this an unmret requirement. However, VALOR reported that VA made a conscious decision to not expend funds to modify the Integrated Funds Distribution Control Point Activity Accounting and Procurement system to interface with the DMLSS system. Thus, VA is developing and implementing*

macros to transmit the minimum essential information between the two systems until the Integrated Funds Distribution Control Point Activity Accounting and Procurement system can be replaced.[51]

Note: The change control board has approved some change requests for action. However, some corrective actions were still under development at the time of the OIG's review, and according to VA, others have been developed, but will not be implemented until the next DMLSS system update.[52]

The operational areas for facilities, financial, and materials management had the most successful deployments with the fewest proportionately missing capabilities and features in comparison to the other areas. Facility staff indicated these outstanding issues minimally affected day-to-day operations because of work-arounds. For example, although certain expendable supply item information could not yet be put into the DMLSS system, the facility can still use different prime vendor systems to identify the source of supplies for purchase. Facility staff will also continue to use a legacy system to maintain control of locks and keys. Also, staff will be able to transmit data to the DMLSS system manually for reconciliations using macros—keystroke shortcuts used to automate repetitive tasks.

The review team found that the operational areas for data and information sharing, healthcare technology management, and equipment management were the most deficient. Specifically, as explained in more detail in the sections that follow, the DMLSS system did not

- meet any of Lovell's key requirements for data and information sharing;
- adequately perform routine healthcare technology management functions, such as tracking and monitoring biomedical equipment; and
- manage equipment for information technology accountability.

The DMLSS System Did Not Meet Lovell's Key Data and Information-Sharing Requirements

At the time it was deployed at Lovell, the DMLSS system could not meet any of the six high-priority business requirements identified by the facility's staff for sharing data and information referred to in table 2. The system could not

- share information with the corporate data warehouse;
- meet internal reporting requirements for monitoring and managing biomedical equipment;

[51] See VA technical comment 5 on page 47.

[52] See VA technical comment 4 on pages 46–47 for some of the priorities advanced since September 2020.

- meet external reporting requirements for equipment, healthcare technology, and financial management operations so national program offices can monitor facility performance;[53]
- interface with the National Acquisition Center to share information;[54]
- exchange data with the Electronic Contract Management System to initiate contracts and provide project management and oversight; and
- track product recalls so needed inspections, replacements, or repairs can be made.[55]

The problems associated with users' inability to share information with the corporate data warehouse demonstrate the types of challenges Lovell staff encountered when the deployment of the DMLSS system did not meet high-priority data and information-sharing business requirements. The corporate data warehouse is a national repository, with thousands of VA users, that allows data from different VA medical facilities, such as historical appointments and prescription information, to be aggregated, standardized, and extracted for use at the national and local program office levels. Access to information in VA's corporate data warehouse is key to VA's efforts to comply with other business requirements within this area. These data are essential to monitoring and managing biomedical equipment, facility performance, and tracking recalls. For example, the Healthcare Technology Management program office uses these data to oversee the management of biomedical equipment across VHA, such as the maintenance and repair of defibrillators, that has to be available for use to patients, and requires medical facilities to report these data into the corporate data warehouse. However, the DMLSS system was not able to interface with the corporate data warehouse as of June 2021, and therefore this information could not be provided for Lovell from DMLSS.

As a result, Lovell staff have developed work-arounds such as manually extracting information from parallel legacy systems maintained to provide program offices with information needed for their personnel's decision-making, including changes to policies, procedures, and purchasing

[53] See VA technical comments 6–8 on pages 47–48. VA provides updated information for the first three bulleted items. The OIG, however, did not make changes to the report because these updates were not in effect during the review period.

[54] See VA technical comments 9 and 10 on pages 48–49. VALOR provided updated information for this bullet and the next, stating the interface and data exchange are now planned for the new financial system VA plans to implement instead of using the National Acquisition Center and Electronic Contract Management System. The OIG acknowledged the change but did not revise this information further in the report narrative because the team used the requirements presented in the business requirements document that governed at the time of its review.

[55] See VA technical comment 11 on page 49. VALOR states it has made a business decision to not use the Hazard Alert and Recall Management system and to continue to use the National Center for Patient Safety portal for product recalls. The team was not informed of this decision until VA provided its technical comments to the OIG's draft report. The OIG acknowledged VA's decision. However, no revisions were made to its finding because any such change should have been reflected in the business requirements document that governed the DMLSS system implementation at the time of the review. The decision and the change in the business requirement were not in fact included. VA appeared to make this decision after the completion of the review.

based on national and local performance metrics. They had to manually extract biomedical equipment information from the DMLSS system, such as inventory counts and quality data, as well as performance metrics and employee work hours, and then send the information outside the system to facility managers and the national program office.

VA has known since 2013 that it needed to create an interface between the corporate data warehouse and the DMLSS system or to develop an alternative solution. VALOR was still considering two possible solutions: (1) establish an interface between the DMLSS system and the corporate data warehouse, or (2) replace the corporate data warehouse functions used by VHA with the Joint Medical Asset Repository system—a web-based data warehouse within the DMLSS system that captures inventory data and transactions and lets users query data and generate reports. The corporate data warehouse interface requirement was the only one of the six unmet data and information-sharing requirements brought to the change control board. The change control board approved the interface for action in May 2020.

Providing important data to the program office manually instead of in a standard, automated format makes reviewing and analyzing the data more difficult for managers, requires additional staff time, and creates potential reliability issues. Many VHA program offices and local managers need accurate, timely national information from the corporate data warehouse to provide oversight and make critical decisions. Unless VALOR implements a permanent solution to this issue quickly, before further deployments of the DMLSS system, the problems stemming from continued manual input of data will multiply as implementation continues across VHA's 170 medical facilities.[56] The VALOR executive director stated on June 29, 2021, that a permanent solution to address the corporate data warehouse integration operational gap is expected to be completed in October 2021.

The DMLSS System Could Not Adequately Perform Routine Healthcare Technology Management Functions

Deployment of the DMLSS system has made routine healthcare technology management functions, such as required tracking and monitoring of biomedical equipment throughout their life cycle, more difficult.[57] As described in table 2, the system did not meet 28 (74 percent) of Lovell's 38 identified high-priority healthcare technology management requirements. As a result, Lovell staff continued to use legacy systems or developed supplemental manual monitoring and

[56] "Providing Health Care for Veterans," VA Medical Centers, accessed October 14, 2020, https://www.va.gov/health/.

[57] The Joint Commission, *Environment of Care 02.04.01*, Element of Performance 4, October 31, 2016; VHA, Healthcare Technology Management Service Bulletin 2017-002, "VHA Planned Maintenance Programs," April 2017.

tracking processes using spreadsheets to perform key functions. Some of the unmet 28 requirements include

- managing biomedical engineering services, such as work orders for specialized medical equipment;
- categorizing and recording maintenance work orders;
- tracking equipment recalls; and
- tracking preventive maintenance on equipment consistent with timeliness standards.

The reliance on work-arounds has increased operating costs and staffing needs. Managers at Lovell were authorized to hire two additional employees to support the additional workload, and other employees worked overtime hours to fix data migration issues identified after the DMLSS system was deployed. The following example demonstrates how the introduction of manual processes in important areas also increases safety risks and made it more difficult for Lovell to meet preventive maintenance standards for all medical equipment.

Example 1

Lovell has about 3,000 medical equipment items, such as ventilators and defibrillators, that require routine preventive maintenance. However, the DMLSS system does not allow Lovell staff to track preventive maintenance work orders when the maintenance has been deferred or not performed because work orders are maintained in either an "open" or "closed" status. The deferred status indicator used in the legacy system is important because preventive maintenance can be deferred for various reasons such as when the equipment is in use, cannot be located, or cannot be serviced until staff and resources are available. Lovell staff using the DMLSS system must close work orders when the preventive maintenance has been deferred, annotate the information in a separate field, and run a separate report periodically to identify those comments. This work-around relies on manual processes to track deferred maintenance, which is prone to errors that can result in missed preventive maintenance targets and increased risks for related equipment malfunctions or failures.

Though Lovell staff identified preventive maintenance work order tracking as a high priority, VALOR did not address this need in the DMLSS system deployment. Lovell staff asked the change control board on September 28, 2020, to add deferred status indicators to the DMLSS system, and the board approved the change on October 30, 2020. VALOR leaders stated on June 29, 2021, that a permanent solution was part of the DMLSS system upgrade scheduled for June 2021.

Lovell Healthcare Technology Management staff also identified two separate data migration issues when looking at monthly preventive maintenance schedules: (1) incomplete and inaccurate inventory records from the failure to transfer some biomedical equipment data into the DMLSS system and (2) inaccurate information from the improper migration of these schedules into the DMLSS system.

Lovell staff estimated they would continue to rely on legacy system data for a year after deployment of the DMLSS system to ensure the proper completion of scheduled preventive maintenance. Using only the DMLSS system increases the chance of medical equipment not receiving preventive maintenance, either because the equipment is not in the DMLSS system or is not on the correct preventive maintenance cycle, and significantly increases the risk of unsafe or unreliable medical equipment being used. Although the DMLSS system is expected to replace legacy systems as part of VA's efforts to modernize its supply chain system and achieve cost efficiencies, the office staff indicated they will continue to use both systems until the data are validated.

Furthermore, a data limitation in the DMLSS system truncates biomedical equipment part numbers, and the facility cannot readily identify equipment that has been recalled. As of June 2021, VALOR's change control board has approved the request to fix the issue but had not implemented a final solution.

The DMLSS System Lacks Key Equipment Management Functions Needed for Information Technology Accountability

As configured at the time of the review, the DMLSS system did not have the capability to address two high-priority needs in IT equipment management. The system was not set up to support the performance of perpetual equipment inventories and did not allow IT staff to issue and track loaned VA-owned property in accordance with VA policy.[58] Although the DMLSS system supports inventory management, it was not designed to maintain the necessary logistics for the continuous performance of inventories throughout each year. Moreover, unlike the prior system, the DMLSS system did not generate forms that VA staff are required to use to maintain accountability over loaned equipment. The facility's use of overtime or additional staff to address these functionality gaps and meet VA inventory and logistics management policy requirements can increase overall program costs, contrary to the goal of federal and VA acquisition regulations to achieve quality equipment management at the lowest total cost.[59]

The review team confirmed with Lovell staff that the DMLSS system does not allow a perpetual inventory of its approximately 12,000 IT equipment items, including laptops and monitors. Perpetual inventories provide better management of large quantities of supplies and equipment

[58] VA Handbook 7002.

[59] FAR 1.101, 1.02-2; VA Acquisition Regulation, 801.101.

because they allow facility staff to track inventory at all times in order to provide the correct items whenever and wherever they are needed. VA policy requires a complete physical inventory of IT items to be conducted using a perpetual inventory cycle where assets are inventoried in small batches of about 10 percent every month.[60] Lovell staff also indicated this was more manageable because of the sheer amount of IT equipment that must be inventoried. However, the DMLSS system was not designed to conduct perpetual inventories because the Department of Defense only requires assets to be inventoried at least triennially, or annually if the property is considered sensitive or classified.[61]

Lovell staff stated they were developing a work-around, but it will require the addition of several steps and increase the amount of time spent performing inventories. Employees interviewed by the review team anticipate this will lead to an estimated 50 percent increase in their workload, thus increasing overtime or additional staffing costs. At the time of this review, VALOR has no plans to modify the DMLSS system to accommodate a perpetual inventory system.

The DMLSS system also does not allow IT staff to issue and track VA-loaned property to VA staff and nonemployees, such as contractors, in accordance with VA's logistics management policy.[62] Previously, IT staff were able to generate VA-compliant property loan forms using the Veterans Health Information Systems and Technology Architecture legacy system. Those forms provided a record that the borrower accepted responsibility for the equipment, a property pass for the borrower, and a return receipt that is signed when the borrower returns the equipment.

The form generated by the DMLSS system at the time of this review does not satisfactorily address VA's policy requirements.[63] For example, the form lacks identifying information such as the model, serial number, justification for use, and a description of the item. Without this identifying information it would be difficult to properly identify and track items that have been loaned to staff and account for the items during an inventory count. As a result, IT staff had to manually complete this form for each loaned item, increasing the staff's workload and the risk of equipment being lost or misplaced. At the time of this review, VALOR had no plans to address these requirements because they had not been brought to the attention of the change control board by the national program offices. Both of these functionality gaps increase personnel workload and overall program costs. Without remediation, VA cannot ensure the DMLSS system provides low-cost quality equipment program management.

[60] VA Handbook 7002; VA memo, "Perpetual Inventory of Information Technology Assets (VAIQ# 7379589)," May 22, 2014.

[61] DoD Instruction 5000.64, Accountability and Management of DoD Equipment and Other Accountable Property, April 27, 2017.

[62] VA Handbook 7002.

[63] VA Handbook 7002.

VA Did Not Follow Its Acquisition Framework

The requirements set by the acquisition framework and the 2019 decision memo language state that VA must use this framework for the implementation of the DMLSS system, starting with the deployment at Lovell. As previously stated, any VHA acquisition program expenditure that is estimated to exceed $100 million in one year shall comply with the acquisition framework policy.[64] The 2019 decision memo from the VA Secretary also reiterates that the DMLSS system shall follow this policy. However, VA did not comply with its acquisition framework during the implementation of the DMLSS system at Lovell.[65] The use of the framework ensures that acquisition standards are consistently applied, and regular reporting and review procedures are followed.[66]

The acquisition framework requires that VALOR and VA's chief acquisition officer demonstrate and validate that business requirements are identified, documented, and updated as necessary; the DMLSS system capabilities meet those business needs; and all identified risks and issues are resolved or there is a response strategy in place.[67] In addition, the 2019 decision memo reiterates that part of the VHA-wide supply chain management transformation includes ensuring user needs are addressed, and if not, that alternatives are identified.[68] Both forms of guidance clearly require the use of the acquisition framework, and emphasize the importance of meeting user needs or identifying alternatives for system deployment.

VALOR's program manager at the time of the review stated that he interpreted the decision memo as having already adopted the DMLSS system and therefore the memo superseded the need to complete the first three acquisition framework phases and respective requirements. Specifically, the manager said, "This decision made the first three phases on the APMF [acquisition framework] no longer relevant. We [VALOR] had been given directions to move past the *Obtain* phase and move right into final assimilation of the product for VA use and planning to deploy the product." Thus, he skipped the first three phases, (*Verify, Initiate,* and *Obtain)*, and did not evaluate Lovell's high-priority requirements and ensure that business needs

[64] VA Directive 7402; VA Handbook 7402.

[65] VA Handbook 7402.

[66] See VA technical comment 12 on pages 49–50. VA claims that it used the VA Performance and Accountability Reporting System (VAPARS) to manage the DMLSS system deployment, but agreed to apply Acquisition Program Management Framework standards going forward. However, VA qualifies its statement by proposing that the acquisition framework be applied "where it does not duplicate the VAPARS framework requirements" and as required for a government off-the-shelf system. The OIG maintains its position that adherence to the acquisition framework policy is not optional. The acquisition framework applies to government off-the-shelf systems when the system requires operational testing, modifications, or integrations with existing or new systems to successfully meet VA mission requirements. It is also required during deployment to leverage acquisition and program practices within established cost, schedule, and scope. VA should ensure that each DMLSS system, including the system at Lovell, adheres to all acquisition framework requirements, irrespective of adherence to any other requirements.

[67] VA Handbook 7402.

[68] VA memo, March 2019 Decision Document.

were met. However, the acquisition framework states that VA staff must still comply with policy requirements when a system meets the framework criteria and is acquired by VA after the *Verify* phase.[69] Furthermore, the team did not identify any language in the framework policy or decision memo stating that the DMLSS system can be excluded from following the framework requirements. Therefore, the OIG concluded that the program manager had erred in not complying with the framework's requirements.

VALOR leaders also stated that the DMLSS system is a government off-the-shelf, "as-is" product intended to standardize VA's supply chain management processes, and losing some functionality and efficiency is just a byproduct of implementing a new system. While VA may have adopted the DMLSS system as a government off-the-shelf product and accepted that its implementation may result in the loss of functionality and efficiency, VA's acquisition framework policy still requires VALOR to ensure the system has met identified business needs and that all identified risks and issues have been resolved or a response strategy is in place.[70]

In addition, VALOR's program manager acknowledged that he did not evaluate and use the business requirements document to meet the identified high-priority capability requirements due to tight implementation deadlines and VALOR's many organizational challenges. He stated that his priority when he joined VALOR was to ensure the DMLSS system's procurement components were completed and that VA's financial system and the DMLSS system were connected so Lovell staff could purchase equipment and supplies, and that he did not have plans to review the business requirements document. The executive director, who was brought on in March 2021, further acknowledged that implementation at Lovell was primarily focused on the financial system functioning in order for equipment and supplies to be purchased. As a result, VALOR is not using a locally or nationally developed business requirements document to guide the DMLSS system implementation, specifically at Mann-Grandstaff and Puget Sound, to ensure users' needs are met, as required by the acquisition framework.

VALOR established a change control board to evaluate and approve users' requests for modifications that address their concerns about operations. However, the change control board process removes VALOR's responsibility to identify and coordinate unmet requirements. Instead, it places the responsibility on the users' program offices to identify their needs at various points in the deployment process. Although the change control board complements the acquisition framework, it requires the use of several layers of approval, including non-VA entities such as the Department of Defense and JMLFDC, which allows an outside authority to potentially veto solutions and hinder or slow the implementation of mitigation strategies. The multiple layers of review create additional processes that can result in lengthy delays before solutions are authorized and implemented. The control board process may be an acceptable

[69] VA Handbook 7402.

[70] VA Handbook 7402.

solution for additional issues that can arise during system implementation. However, it does not remove the responsibility for the program office to ensure users' business requirements are met nor does it replace or satisfy the framework's policy to develop, use, and update the business requirements document.

As of June 2021, the 40 unmet high-priority business requirements the OIG identified after the activation at Lovell still did not have permanent solutions in place. The change control board has received nine requests related to seven unmet business requirements and approved six of them for action.[71] However, solutions for all unmet high-priority requirements had either not yet been identified or implemented.[72] In addition, VALOR had not ensured that the remaining 33 unmet business requirements had been submitted for review and approval through the change control board process. VALOR is responsible for reassessing these outstanding issues and working with the facility to identify permanent solutions under VA's acquisition framework. Until all 40 outstanding needs are addressed and permanent solutions are applied, facility staff will continue to employ work-arounds and experience operational inefficiencies using the DMLSS system.

VALOR program office documents created as early as 2019 demonstrated management's knowledge of and responsibility to use the acquisition framework. VALOR's Program Management Plan, which outlines the organizational structure and oversight responsibilities in the execution of the VALOR DMLSS implementation efforts, states that "the VALOR program is being executed in accordance with VA Policy 7402, *Acquisition Program Management Framework*."[73] VALOR's program charter states that the chief acquisition officer manages the direction of VA acquisition policy and oversees alignment of the acquisition framework with leading industry program management best practices, federal acquisition policies, and legislation, and provides statutory oversight of acquisition activities and programs.[74] The OIG found no support for the former VALOR manager's position that adherence to the acquisition framework was not required or that skipping acquisition framework phases and not applying framework requirements were allowed. The decision to forgo these requirements contributed to the significant number of unmet requirements for Lovell's DMLSS system deployment that required facility staff to develop their own inefficient work-arounds to address these gaps and maintain their operations.

[71] The change control board received a total of 35 requests to address deficiencies in areas such as financial management, data and information sharing, and materials management. Twenty-six of the 35 requests were related to new needs identified and are not part of the 40 unmet requirements, and the remaining nine were related to unmet requirements defined before deployment.

[72] VALOR plans to begin implementing some of these changes during the LogiCole upgrade.

[73] VHA, Veterans Affairs Logistics Redesign (VALOR) Defense Medical Logistics Standard Support (DMLSS)/LogiCole Enterprise Deployment Program Management Plan, August 26, 2019.

[74] VHA, *VALOR Acquisition Program Charter*. VA's chief acquisition officer during the OIG's review retired in January 2021.

Delays in Establishing VALOR and Its Structure Hampered Deployment Management

Delays in properly establishing VALOR with adequate funding and staffing weakened VA's oversight of the deployment of the DMLSS system. The August 2018 decision memo on the acquisition of the system established a program executive office.[75] The memo and the acquisition framework also required oversight of the acquisition planning and implementation of the DMLSS system. Yet VA did not fund VALOR to oversee those activities until January 2020, about 17 months after VA authorized VALOR's establishment and three months after the initial planned deployment of the DMLSS system at Lovell in October 2019.

Before VALOR's official establishment, VA relied on a limited number of temporary staff borrowed from the Procurement and Logistics Office and the Office of Information and Technology to make progress on the deployment. Interviews by the review team revealed that some of these temporary staff had a limited understanding of their roles and responsibilities, did not believe they had oversight responsibilities, and did not always guide Lovell staff. Furthermore, VA initially aligned staff assigned to DMLSS system implementation under VHA's Procurement and Logistics Office, which created a protracted, multilayered organizational structure involving multiple offices (such as the offices of procurement and logistics, deputy undersecretary for health, and undersecretary for health) with no direct authority to make decisions on DMLSS system implementation. This multilayered organizational alignment limited the staff's actions and delayed early deployment decisions. These problems prompted the first program manager to request a change in the governance structure alignment out of VHA to VA's central office under the Office of Acquisition, Logistics, and Construction (OALC) in May 2019. In December 2019, almost seven months after the program manager's request, staff assigned to DMLSS system implementation started reporting to OALC.[76] VALOR requested to officially become a directorate within the Assistant Under Secretary for Health for Support Services Division in March 2021.

By the time VA provided the VALOR program office with funding and staff, the office was already on its third program manager, only had temporary staff, and had already missed the initial October 2019 DMLSS system deployment date for Lovell. According to VALOR's program manager who held the position during most of the OIG review, VA brought him on board in November 2019 and he began hiring staff when VA funded the VALOR program office in January 2020. Since his arrival, VALOR filled many of the vacancies, but that same program manager left VALOR at the end of November 2020 to return to his previous position in VA. As a result, VALOR lost significant institutional knowledge. As of May 26, 2021, VALOR still had

[75] VA memo, July 2018 Decision Document.

[76] The chief acquisition officer, within OALC, has direct authority over acquisitions, including the DMLSS system, per VA Directive 7402.

seven vacancies remaining, with 24 of the 31 authorized positions filled.[77] After the departure of the VALOR program manager in November 2020, VALOR hired two additional interim program managers. In March 2021, VA appointed a VALOR executive director to function as the permanent VALOR program manager. The executive director became the deployment's sixth manager since VA made the decision to adopt the DMLSS system nationwide in 2019, about two years ago.

VALOR Did Not Effectively Coordinate DMLSS System Deployment

The review team found that VALOR and JMLFDC did not effectively coordinate with key stakeholders in deploying the DMLSS system at Lovell. JMLFDC is expected to assist VHA and provide the technical expertise required to install and monitor the DMLSS system at VHA sites, test the system, and provide additional site support after deployment. VALOR, in coordination with JMLFDC, primarily focused its efforts during initial implementation on making the DMLSS system's procurement and logistics operational areas work, such as financial and materials management.

VALOR did not engage local staff and other key national program offices, such as Healthcare Technology Management and Finance, early enough in the assessment and development of functional requirements for the DMLSS system to help minimize operational issues when deploying the DMLSS system at Lovell. Some of these issues included the inability to ensure the maintenance of biomedical equipment used for patient care or initially be able to purchase expendable equipment and supplies for patients in the DMLSS system. One national program office director said he did not understand how all the key functional requirements for his operational area could have been collected without contacting his staff first given their expertise in identifying the necessary DMLSS system requirements for their department. Lovell facility staff told the review team that VALOR and JMLFDC were not always open to addressing facility subject matter experts' input, requests, and operational concerns. For example, facility staff asked for a trial period of almost a month before deployment to ensure the DMLSS system met their operational needs and to give them time to resolve any problems. VALOR and JMLFDC denied their request and gave them four days because they had to meet deployment deadlines. VALOR and JMLFDC had teams on-site at the facility from a week before and two weeks after the system's August 4, 2020, deployment date for support, but facility staff stated they were not given sufficient time to address all the functionality issues found during the trial period. Facility staff stated that VALOR continued to support them after the deployment of the DMLSS system, including having JMLFDC remotely provide day-to-day service desk operational and technical assistance to facility staff as needed.

[77] VHA Support Services Division, "Government manpower model (as-is)," May 26, 2021.

The executive director stated he assessed the condition of his office and the DMLSS system implementation efforts upon his arrival at VALOR and noted that VALOR needed staff with the appropriate subject matter expertise to work with facility staff from other user communities to determine and confirm operational requirement needs. The prior borrowed staff from other offices did not have the subject matter expertise to properly accomplish this task. Additionally, the executive director's assessment was consistent with the review team's observations that VALOR did not have the staffing level necessary to provide the required oversight of the implementation efforts and ensure business requirements were effectively coordinated with key facility staff to review user needs, validate that business requirements were needed for operations, and determine that the DMLSS system met functionality requirements.

Conclusion

If VA does not fix the deficiencies identified at Lovell, it risks reoccurring or exacerbating issues with modernizing and standardizing business processes, increasing costs, and failing to complete the transition from legacy systems to the DMLSS system at other medical centers. VALOR did not comply with the acquisition framework and the use of the business requirements document to ensure users' needs were met. Instead, VALOR expects all modification requests for the review and approval of unmet or new requirements to go through the change control board process. However, 33 of 40 outstanding business requirements had not been submitted for review and approval through this lengthy process. After request approvals, VALOR still needed to ensure the implementation of the solutions, but as of June 2021, there were no permanent solutions applied for any of the 40 unmet high-priority business requirements. Instead, Lovell staff had to use 34 work-arounds to fill functional gaps created by those 40 unmet requirements to maintain day-to-day operations. The use of inefficient work-arounds, which includes the continued use of legacy systems, does not meet VA's intent to modernize its supply chain system and replace up to 12 VHA legacy systems and their functionalities. VALOR leaders anticipated implementing permanent solutions to address operational gaps discussed in this report either through DMLSS system upgrades, scheduled for June through July and October 2021, or the upgrade to LogiCole.

At the time of the review, the prior VALOR program manager had no plans to revisit the business requirements document to ensure all operational needs were met at deployment, stating that a March 2019 memo superseded the initial framework acquisition phases and those activities did not need to be completed.[78] The OIG found to the contrary that the memo provided additional guidance that required the use of the acquisition framework and therefore did not relieve VALOR of the responsibilities to comply with the acquisition framework requirements. Additionally, the change control board process may be used to complement the framework. Using that process does not, however, excuse VALOR from using and updating a business

[78] VA claimed that corrective actions for some of the unmet capabilities and features identified during the review were under development or had been developed and would be implemented during the next DMLSS system update.

requirements document and meeting user operational needs when implementing the DMLSS system at Lovell and future sites.

VA's failure to meet acquisition framework requirements at Lovell led to a series of cascading problems that undermined supply chain modernization goals. These issues could push back the rollout schedule that was recently accelerated in response to Congress's request for a faster deployment.[79]

Unless VALOR develops a process to effectively and promptly address the problems identified at Lovell, VA will remain dependent on legacy systems and manual work-arounds that can increase costs and errors. VHA program offices will also lack timely access to data needed for making decisions to improve system-wide effectiveness and efficiency. More importantly, as prior OIG reports have demonstrated, supply chain management breakdowns can affect the delivery of prompt high-quality patient care and services and significantly disrupt medical facility operations.

Recommendations 1–3

The OIG made the following recommendations to the principal executive director of the Office of Acquisitions, Logistics, and Construction:

1. Ensure the VA Logistics Redesign office revisits its Defense Medical Logistics Standard Support system oversight and deployment processes to align them with VA's acquisition program management framework requirements.
2. Develop processes to better identify unmet high-priority business requirements and post-deployment challenges at the Captain James A. Lovell Health Care Center and future sites and to make certain that solutions are developed and implemented.
3. Properly staff the VA Logistics Redesign office with personnel who possess the appropriate subject matter expertise and employ measures to improve continuity in the project management team that oversees the Defense Medical Logistics Standard Support system's implementation.

VA Management Comments

The principal executive director of OALC and the chief acquisition officer, in collaboration with VHA, concurred with all of the report's findings and recommendations and submitted action plans for recommendations 1 through 3. Appendix C provides the full text of their comments.

[79] Future deployments may be delayed, however. The executive director of VALOR informed the OIG on June 29, 2021, that the DMLSS system implementation had been paused until further notice due to litgation regarding VA's use of the Defense Logistics Agency as a medical and surgical supply prime vendor.

In response to recommendation 1, OALC is collaborating with VHA to establish a governance model and create a formal VALOR charter to clearly describe and define roles and responsibilities of various offices, including VALOR, Office of Information and Technology, and the Medical Logistics Information Technology program office.

For recommendation 2, OALC and VHA plan on addressing unmet high-priority business requirements with the upcoming DMLSS system software releases.

For recommendation 3, VALOR will continue to work with Workforce Strategy and Standardization to address staffing needs and organizational alignment. VALOR plans to onboard three key personnel by the end of fiscal year 2021.

OIG Response

OALC in coordination with VHA provided 12 technical comments in its response to this report. The OIG incorporated clarifying information in the narrative of the report where appropriate and added explanatory footnotes as needed to address these technical comments. Specifically, the OIG updated the narrative and added footnotes in the results and recommendations section to incorporate new information provided in VA technical comments 2, 4, and 5. The OIG did not revise the narrative and only added footnotes to the appropriate sections of the report to address the nine remaining technical comments. The OIG provides the following explanations for why it addressed these technical comments in the footnotes.

The OIG added footnotes for VA technical comments 1 and 12 as well. VA's assertions are incorrect that the acquisition framework was optional because it had followed Joint Incentive Fund legal requirements (comment 1) and VA Performance and Accountability Reporting System (comment 12) in its implementation of the DMLSS system. There is no language in the acquisition framework's policies and procedures that remove the mandatory requirement to comply with the framework, even if other standards may have been applied. The March 2019 decision memo from the VA Secretary clearly states the DMLSS system deployment must follow acquisition framework requirements. Moreover, Lovell's application of Joint Incentive Fund requirements to manage the DMLSS system implementation was before the OIG's review period. VA's position on the use of the Joint Incentive Fund and VA Performance and Accountability Reporting System was not raised with the OIG team at the entrance conference, during interviews, or when presented with the OIG's statement of findings. VA only raised these requirements for the OIG's consideration after it was provided the draft report for comment.

The OIG also added footnotes for VA technical comments 3, 6, 7, and 8 to reflect corrective actions that VA initiated after the OIG's review period. The technical comments discuss planned remedial actions that VA asserts will address some of the issues identified in this report. This information is presented in full in VA's technical comments. (See appendix C).

Lastly, the OIG included footnotes to address VA technical comments 9, 10, and 11. They capture decisions and changes VA asserts it has made, or has planned, to the DMLSS system's requirements. VA asserts that the requirements for the DMLSS system to interface with the National Acquisition Center and the Electronic Contract Management System have been replaced by the need going forward to interface with VA's Financial Management Business Transformation system. VA also asserts in comment 11 that it has decided not to use the Hazard Alert and Recall Management System and will continue to use the National Center for Patient Safety portal to conduct product recalls. VA did not discuss these decisions or planned changes during the course of its review, so they were not assessed.

The OIG will assess the satisfactory completion of these claimed actions in conjunction with its routine recommendation follow-up. Overall, the proposed corrective measures in VA's action plans appear to be responsive to the recommendations, and the OIG will monitor the implementation of the recommendations until all actions are documented as completed.

Appendix A: Background

Executive Decision Documents

In August 2018, the Secretary of VA signed *Decision Document–Enterprise-wide Adoption of a VA Health Care Logistics and Supply Chain Solution,* a decision memo noting that the transformation of VA's supply chain management had been a longstanding priority and that a long-term strategy should be developed. The decision memo requires the completion of a capabilities analysis to include alternatives that would be able to satisfy VA's needs, and identified the DMLSS system as a possible solution. The decision memo also identifies Lovell as the pilot site and requires the establishment of a program office that would be tasked with leading the implementation of the DMLSS system there.

In March 2019, the Secretary of VA signed *Decision Document–Enterprise-wide Adoption of Defense Medical Logistics Standard Support as VHA's Health Care Logistics and Supply Chain Solution*, a decision memo directing VHA to adopt and implement the DMLSS system VHA-wide. This decision memo again directs VHA to establish a program office to lead the implementation at Lovell and apply the lessons learned from Lovell to the VHA-wide deployment of the DMLSS system. This decision memo also requires VA to follow its acquisition framework policy for the deployment of the DMLSS system.

Prior Reports

Listed below are prior audits relevant to either VA's supply chain inefficiencies or previous implementation challenges with other system modernization efforts.

Supply Chain Inefficiencies

- VA OIG report, *Equipment and Supply Mismanagement at the Hampton VA Medical Center, Virginia,* 19-00260-215 (September 26, 2019), found that inappropriate inventory management practices resulted in equipment having incorrect location information in the Automated Engineering Management/Medical Equipment Reporting System, missing from the inventory system, or improperly disposed. The report also found that facility staff were not fully using the Generic Inventory Package to manage or order expendable operating room supplies, resulting in an overstock and supplies expiring. The report did not identify patient risk; however, the report did convey that inventory management concerns are potentially systemic at other VA facilities because of similar findings in a previous report.
- VA OIG report, *Expendable Inventory Management System, Oversight of Migration from Catamaran to the Generic Inventory Package,* 17-05246-98 (May 01, 2019), found that most of the facilities had not conducted a physical inventory to verify information after

migrating from Catamaran back to the Generic Inventory Package, and data were incorrect for all facilities one year after the migration. VA planned for Catamaran to replace the Generic Inventory Package; however, VA allowed the contract to expire in 2017 because the contractor failed to meet VHA's medical supply needs, and facilities had to migrate back to the Generic Inventory Package. This audit was initiated because of a prior VA OIG report, *Critical Deficiencies at the Washington DC VA Medical Center,* 17-02644-130 (March 7, 2018), which found that the medical center underutilized the Generic Inventory Package after migration from Catamaran and could not rely on the system to identify when supplies were running low or out of stock. The audit team also found that all facilities had inaccurate supply level information caused by the facilities' failure to follow required inventory management procedures. Specifically, the facilities failed to properly distribute, document, secure, and label expendable supplies. While the audit team did not identify direct risks to patients, the team noted the issues found created risks with understocking, which could lead to supply shortages, or overstocking, which could lead to supplies expiring before use.

- VA OIG report, *Critical Deficiencies at the Washington DC VA Medical Center,* 17-02644-130 (March 7, 2018), found that patients were placed at risk because important supplies and instruments were not consistently available. The inventory inefficiencies affected patients when their medical procedures were canceled because items could not be located in time for scheduled surgeries. It also impeded healthcare providers' ability to deliver quality care because of inaccurate inventory and difficulty locating supplies and equipment. Additionally, the audit team also found an increased risk of fraud, waste, and abuse due to ineffective controls over inventory systems, which resulted in mismanagement of over 500,000 items that were stored in an unsecured off-site location, and that nonexpendable items valued at over $150 million were unaccounted for during the previous 12 months. The medical center implemented the Catamaran inventory system in 2015; however, the facility migrated back to the Generic Inventory Package. The facility was not adequately supported in the transition back to the Generic Inventory Package and the facility was not fully using the inventory system at the time of the OIG's review, even though migration had started four months earlier.

Previous VA Information Technology Acquisition Challenges

- VA OIG report, *Deficiencies in Infrastructure Readiness for Deploying VA's New Electronic Health Record System*, 19-08980-95 (April 27, 2020), found that critical physical and IT infrastructure upgrades had not been completed at the Mann-Grandstaff VA Medical Center two months before the scheduled go live date of March 2020, and some of the required modifications would not be completed until four months after the scheduled go live date. The audit team found that the infrastructure upgrades had not been completed on time because VA lacked initial comprehensive site assessments to

determine a realistic go live date, appropriate monitoring mechanisms, and adequate staffing. After the audit team conducted its work, VA postponed the deployment date for Mann-Grandstaff, and postponed the first three waves of site deployments that were to follow the Mann-Grandstaff deployment, until 2021.

- VA OIG report, *VA's Implementation of the Veterans Information Systems and Technology Architecture Scheduling Systems Enhancement Project Near Completion,*16-03597-171 (August 20, 2019), found that the VistA Scheduling Enhancement project, which included Office of Information and Technology program and project managers and VHA project managers, did not effectively manage the project to ensure scheduling enhancements were adequately developed and met users' needs. Specifically, the audit team determined that VHA requirements for the scheduling enhancement project were inadequate and that the approved requirements specification documents were insufficient to help ensure the scheduling enhancements would meet VHA's needs. While the scheduling enhancement project was to serve as an interim solution as the long-term solution was pursued, delays in deployment persisted until the final contract modification ended in September 2017.
- VA OIG report, *Review of Alleged Mismanagement of the Real Time Location System Project*, 15-05447-383 (December 19, 2017), substantiated an allegation that VA managers failed to comply with VA policy and guidance when they deployed assets of the Real Time Location System without appropriate project oversight. Specifically, the project management office did not follow guidance from VA's Technology Acquisition Center to use an incremental project management approach to compensate for numerous known project management risks during the acquisition and deployment of system assets. In addition, the project management office did not comply with VA policy requiring the use of Project Management Accountability System incremental oversight processes for all acquisitions and delivery of the system's assets. Despite the guidance, management failed to provide effective oversight of the project from acquisition through development and implementation and the program office did not ensure that the vendor could meet contracted functionality requirements on the initial task order, before committing a total of $431 million to the same vendor for further deployments. Specifically, VA's Office of Planning and Policy Enterprise Program Management provided minimal oversight of the Real Time Location System's project management activities, never successfully establishing an advisory council to provide overall governance for the project. Furthermore, the project management office lacked the oversight authority and training to ensure success of an IT-based VA-level deployment.
- VA OIG report, *Review of Alleged Mismanagement of the Service-Oriented Architecture Research and Development (SOARD) Pilot Project*, 14-00545-343 (August 5, 2015), found that the Service-Oriented Architecture Research and Development pilot project

was initiated as a result of the cancellation of the strategic asset management project. However, the OIG team substantiated an allegation that VHA misused Medical Support and Compliance appropriations to pay for this pilot project instead of congressionally mandated IT systems appropriations. The review found that there were insufficient controls to detect and prevent VHA's improper use of Medical Support and Compliance appropriations to fund the project. The pilot project was ended in August 2013 due to lack of funding.

- VA OIG report, *Audit of the FLITE Strategic Asset Management Pilot Project*, 09-03861-238 (September 14, 2010), found that Financial and Logistics Integrated Enterprise program managers did not effectively control project cost, schedule, and performance, and ensure timely deliverables due to shortfalls in program management. As a result, VA considered extending the strategic asset management pilot project by 17 months, potentially more than doubling the original contract. Some of the cost, schedule, and performance issues could have been avoided if program managers had ensured adequate contractor involvement and effective processes to identify and manage risks associated with the pilot project. The project was ultimately canceled in October 2011 after missing three deliverables.
- VA OIG report, *Review of Alleged Improper Management within the FLITE Strategic Asset Management Pilot Project*, 10-01374-237 (September 7, 2010), substantiated that Financial and Logistics Integrated Enterprise program managers needed to improve their overall management of the strategic asset management pilot project and that program managers did not adequately monitor the contractor's performance and ensure the Office of Information and Technology assigned legacy system programmers to the project in a timely manner. The review also noted that VA decided to terminate the Financial and Logistics Integrated Enterprise program except for the strategic asset management pilot and national deployment project.

GAO High-Risk List

- GAO Report, *Report to Congressional Committees, High-Risk Series–An Update*, GAO-15-290 (February 2015), included IT challenges as part of its Managing Risks and Improving VA Health Care risk area because GAO identified limitations in the capacity of VA's existing IT systems. The outdated and inefficient nature of certain systems along with a lack of the ability to exchange information presented risks to the timeliness, quality, and safety of VA health care.
- GAO Report, *Report to Congressional Committees, High-Risk Series–Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others,* GAO-17-317 (February 2017), acknowledged that VA had partially met one criterion (leadership commitment)

for IT challenges related to Managing Risks and Improving VA Health Care, but had not met the four remaining criteria for removing IT challenges from the high-risk list.

Appendix B: Scope and Methodology

Scope

The review team conducted its work from February 2020 through June 2021. The team assessed relevant information about VA's implementation of the DMLSS system, the deployment of the system at Lovell, and challenges that could affect future implementations and its VHA-wide deployment. The team reviewed Lovell's business requirements document and queried Lovell staff, as of September 23, 2020, using interviews and a questionnaire to assess the success of VALOR's implementation efforts based on the number of high-priority business requirements that were met after the DMLSS system deployed on August 4, 2020.[80] Business requirements are operational capabilities necessary to transition from VA's current supply chain management legacy systems and provide performance parameters for successful deployment of the DMLSS system at Lovell.

For the purpose of this report, "facility operational areas" refers to the various key supply chain management or associated departments the DMLSS system will affect upon deployment and includes six major areas: data and information sharing, healthcare technology management (biomedical engineering), equipment management, financial management, materials management, and facilities management.

Methodology

The review team gathered and reviewed applicable policies, procedures, and guidelines, including VA's acquisition program management framework and business requirements documents. The team also interviewed staff from VHA, VALOR, JMLFDC, and Lovell responsible for the DMLSS system application as it was deployed at Lovell.

To assess if the DMLSS system was deployed successfully and is operating as intended, the review team prepared a questionnaire with the 110 high-priority business requirements for the six major operational areas identified in the Lovell business requirements document. The questionnaire asked facility staff from each of their respective operational areas to provide the status of the system's functionality for each of the 110 high-priority requirements. Six questionnaires, one for each operational area, were received with responses from 17 facility staff. The review team analyzed all the questionnaire responses returned by September 23, 2020.

[80] Not all operational areas in the DMLSS system were fully deployed on August 4, 2020. The first operational area, facilities management, was deployed August 4, 2020, with the remaining operational areas deployed between August 10, 2020, and September 21, 2020. Pharmacy, which deployed on September 21, 2020, was not part of this review's scope.

Internal Controls

The review team assessed the internal controls of VA and VALOR significant to the review objective. This included an assessment of the five internal control components for each of the two entities to include control environment, risk assessment, control activities, information and communication, and monitoring. In addition, the review team evaluated the principles of internal controls as associated with the review objective. The review team identified the following four components and seven principles as significant to the review objective. The review team identified internal control weaknesses during this review and proposed recommendations to address the following control deficiencies:

- Component: Control Environment
    - Principle 2: The oversight body should oversee the entity's internal control system.
    - Principle 3: Management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objective.
    - Principle 4: Management should demonstrate a commitment to recruit, develop, and retain competent individuals.
- Component: Risk Assessment
    - Principle 7: Management should identify, analyze, and respond to risks related to achieving the defined objectives.
- Component: Information and Communication
    - Principle 13: Management should use quality information to achieve the entity's objective.
- Component: Monitoring
    - Principle 16: Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.
    - Principle 17: Management should remediate identified internal control deficiencies on a timely basis.

Scope Limitations

The team reviewed the business requirements document for Lovell; prepared a questionnaire with Lovell's high-priority business requirements to capture facility staff responses for the status of the system's functionality for each of the requirements; and interviewed staff from VA, VALOR, JMLFDC, and Lovell to assess the success of the deployment and implementation of the DMLSS system to meet VA's user needs. The OIG could not conduct site work or extensive

inspections to verify information provided by VA and Lovell staff due to COVID-19 restrictions and the limited availability of facility staff during the pandemic. The OIG made efforts to minimize any burdens on facility staff to prevent interfering with VA's pandemic efforts. Thus, the OIG could not physically visit Lovell to assess controls and verify that the DMLSS system had been successfully implemented to meet users' needs; confirm if supply chain processes were fully functional, were used, and that staff were not reverting back to using old processes; and confirm whether facility staff were using work-arounds to address functional gaps. Instead, the review team conducted extensive document reviews and multiple interviews with key VA, VALOR, JMLFDC, and Lovell officials and staff and, where possible, used multiple documents and interviews to corroborate the information presented in the report and to form the basis for its conclusions. Despite the limitations posed by the pandemic, the review team obtained sufficient information to achieve the review's objectives.

Fraud Assessment

The OIG was alert to any indicators for fraud, other illegal acts, and abuse during this review. OIG staff exercised due diligence in staying alert to these indicators. A standardized checklist was not utilized during the review. The OIG did not identify any instances of fraud or potential fraud during this review.

Data Reliability

The OIG did not use computer-processed data during the performance of this review.

Government Standards

The OIG conducted this review in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation.*

Appendix C: Management Comments

Department of Veterans Affairs Memorandum

Date: September 21, 2021

From: Principal Executive Director, Office of Acquisition, Logistics, and Construction and Chief Acquisition Officer (003)

Subj: Office of Inspector General (OIG) Draft Report: DMLSS Supply Chain Management System Deployed with Operational Gaps That Risks National Delays (Project Number 2020-01324-R7-0001) (VIEWS 05444683)

To: Assistant Inspector General for Audits and Evaluations (52)

1. The Office of Acquisition, Logistics, and Construction (OALC) and the Veterans Health Administration (VHA), collaboratively responds to OIG's request to provide comments on the subject draft report. OALC and VHA concurs with all the findings and recommendations in the report, and will complete the actions referenced in the revised implementation plan by the suggested target completion dates. Additionally, OALC and VHA submits general and technical comments for review.

The OIG removed point of contact information prior to publication.

(original signed by)

Michael D. Parrish

Attachments: (4)

Attachment 1

Department of Veterans Affairs (VA) Comments to

Office of Inspector General (OIG) Draft Report

DMLSS Supply Chain Management System Deployed with Operational Gaps That Risks National Delays *(*Project Number 2020-01324-R7-0001)

The OIG made the following recommendations to the Principal Executive Director of the Office of Acquisitions, Logistics, and Construction:

Recommendation 1: Ensure the VA Logistics Redesign office revisits its Defense Medical Logistics Standard Support system oversight and deployment processes to align them with VA's acquisition program management framework require.

Comment: Concur.

The Office of Acquisition, Logistics, and Construction (OALC) and the Veterans Health Administration (VHA) concur with the findings and the recommendations contained within the draft report.

OALC in collaboration with VHA is creating a formal VA Logistics Redesign (VALOR) Charter that will clearly describe and define roles and responsibilities for VALOR, Office of Information and Technology (OIT), and Medical Logistics Information Technology (MEDLOG IT) Program Management Office (PMO) in addition to establishing a governance model.

Status: In progress Target Completion Date: December 2021

Recommendation 2: Develop processes to better identify unmet high-priority business requirements and post-deployment challenges at the Captain James A. Lovell Health Care Center and future sites and to make certain that solutions are developed and implemented.

Comment: Concur.

OALC and VHA concur with the findings and the recommendations contained within the draft report.

The upcoming Defense Medical Logistics Standard Support (DMLSS) software releases are expected to address the unmet high-priority business requirements identified by the Federal Health Care Center. See Attachment 4.[81]

Status: In progress Target Completion Date: October 2021

Recommendation 3: Properly staff the VA Logistics Redesign office with personnel who possess the appropriate subject matter expertise and employ measures to improve continuity in the project management team that oversees the Defense Medical Logistics Standard Support system's implementation.

Comment: Concur.

OALC and VHA concur with the findings and the recommendations contained within the draft report.

VALOR continues to work with Workforce Strategy and Standardization to appropriately address staffing needs and organizational alignment. On July 18, 2021, onboarded a Senior Service Representative

[81] Attachment 4 provides the details of each software release and the high-priority business requirements it will potentially address. Attachment 4 was not included in appendix C because of the size and formatting of the attachment.

(detail, not to exceed 120 days). As of September 2, 2021, three key personnel (Director of Technology, Chief of Staff/Executive Assistant, and an Executive Secretary) will onboard the end of Fiscal Year 2021.

Status: In progress Target Completion Date: December 2021

Attachment 2

VHA General Comments

OIG Draft Report –DMLSS Supply Chain Management System Deployed with Operational Gaps That Risks National Delays

(Project Number 2020-01324-R7-0001)

Comment 1: The Department of Veterans Affairs (VA) Logistics Redesign (VALOR) Program Management Office (PMO) agrees with Recommendations 1-3 on page 26 of the OIG Draft- Defense Medical Logistics Standard Support (DMLSS) Implementation at Federal Health Care Center (FHCC) report.

Comment 2: VA acquired the DMLSS system as an out-of-the box logistics and support service management Automated Information System (AIS) that provides integrated supply chain and life cycle management for pharmaceuticals, medical supplies, equipment, and facilities. VA's primary goal in using DMLSS is to improve the effectiveness, efficiency, quality and safety of healthcare delivery. Today, DMLSS provides all Department of Defense (DOD) medical facilities with a standardized application that supports integrated and comprehensive end-to-end total supply chain, equipment and facilities management and support across the continuum of care. DMLSS provides a modern, fully automated and integrated solution to enable VA to replace its fragmented unsustainable legacy systems.

Comment 3: DMLSS supports the following core business functions: Acquisition, accountability, maintenance, and distribution of materiel and equipment use, maintenance and repair of facilities supporting the medical mission. Specifically:

- Catalog research and purchase decisions; strategic sourcing; physical and customer inventory management; biomedical equipment maintenance; property management; facility management; distribution and transportation management; and mobile device technology to complement benchmark processes. Further, DMLSS complies with Federal regulations including Food, Drug and Cosmetic Act, The Joint Commission, Federal Acquisition Regulations, and other mandatory Federal and congressional mandates.
- Enterprise-wide data visibility, business intelligence and decision support, total asset visibility, metrics, critical equipment and medical materiel reporting, supply chain/contingency/disaster response dashboards, and ad hoc reporting.

Comment 4: The out-of-the box DMLSS AIS interfaces with several commercial systems that provide additional supply and medical equipment/maintenance management. The Joint Medical Logistics Functional Development Center has created a standard interface that supports transactional level data exchange between commercial point of use systems, real time locator system and carousel systems. DMLSS functions include:

- Customer Support (CS): Provides automated capabilities to research information from commercial and government sources and stocked items from the hospital/treatment facility. Forwards New Item Requests electronically through the levels of approving authorities; initiates work requests for both Facility Management and Medical Equipment Maintenance and provides an automated replenishment process for restocking customer supply.
- Customer Area Inventory Management (CAIM): Provides the ability to manage an individual stockroom or area. CAIM assists in identifying materiel items required in patient care and clinical support, providing an automated tool for requesting materiel items, physical inventory, credit card

ordering, credit card reconciliation location management, receipt, and tracking of patient care related materiel to the point of use. CAIM functionality allows ordering supplies directly to a prime vendor, commercial vendor or a CAIM source of supply (SOS), or to the hospital's Logistics Division.

- CAIM Source of Supply (SOS): Provides the ability to sell items to other internal CAIM customer areas as well as managing its own perpetual inventory. As with CAIM, the CAIM SOS assists the customer in identifying materiel items required in patient care and clinical support. It provides an automated tool for requesting materiel items; performing a physical inventory; location management; receipts; and tracking of patient care related materiel to the point of use. CAIM SOS also has the capability to issue (cost reallocate) to its CAIM customers.
- Inventory Management (IM): Provides a standardized, integrated management system, which includes formal accountability and facilitate materiel management and administration. Functions of this module include cataloging, excess reporting, credit card ordering and reconciliation, physical inventory, online and offline ordering, transaction history, location management, and delivery and pick lists. IM implements a simple automated quality assurance program covering Hazards, Alerts, and Recalls (HAR), destructions, and the safe medical devices act. This module also supports electronic commerce requisitioning capabilities as well as the Extensible Markup Language (XML) interfaces. IM is the only DMLSS module which can do a formal sales transaction to external customers.
- Equipment and Technology Management (ETM): Groups together two equipment functions, equipment maintenance and equipment management.
- Equipment Maintenance (MA): Provides the user with a systematic approach to equipment maintenance, simplifying the maintenance request process and tracking the progress of requested work. The work order system schedules maintenance procedures and facilitates collection of historical maintenance data, which support the equipment management and budgeting process. A repair parts module interfaces to the supporting supply activity and the work order system.
- Equipment Management (EM): Enables equipment managers to manage equipment assets from the time a customer starts researching an equipment item to the point at which the equipment is processed for redistribution or disposal. It also enables the logistician to acquire equipment, track inventory, and dispose of assets through an automated and integrated process.
- Assemblage Management (AM): Provides a standardized and integrated management information system to support assemblage management functions.
- Facilities Management (FM): Provides a powerful computer-aided FM for standardizing facility management programs. It provides comprehensive automated management capabilities ranging from scheduled maintenance and project tracking to regulatory compliance and space management.
- Systems Services (SS): Manages the supported customer data and includes DMLSS Communication Manager, Table Maintenance Utility, Military Treatment Facility/Organization, Funds Management, Point of Contact, User Privilege, End of Period and Record Management.
- System Administration (SA): Provides the DMLSS SA with a tool to manage the DMLSS system including User Management, Security Management, Server Management, Device Management,

Database Management, Facilities Management, DMLSS Server Database Backups Management and Universal Data Repository Delta Process.

- Reporting – Business Objects (BO): Allows the user to access the DMLSS database and provide managerial information using queries and reports. This powerful business intelligence software can be used to develop daily, monthly, and quarterly reports. While many reports are already preformatted, the module provides the capability to create ad-hoc reports as required.

Comment 5: DMLSS is a proven DOD AIS that provides integrated supply chain and life cycle management for pharmaceuticals, medical supplies, equipment, health facilities and services. DMLSS supports the complete continuum of care and range of core business functions, including acquisition, accountability, maintenance, distribution of materiel and equipment; and use, maintenance and repair of facilities supporting the medical mission. DMLSS allows logistics personnel to be responsive to customer requirements, focused on improving the effectiveness, efficiency, and quality of healthcare delivery.

Attachment 3

VA Technical Comments

OIG Draft Report: DMLSS Supply Chain Management System Deployed with Operational Gaps That Risks National Delays

(Project Number 2020-01324-R7-0001)

Comment 1

Draft location: Page 4, Paragraph 1 [Final report location: page 4, paragraph 2]

The Department of Veterans Affairs (VA) finds the draft report is missing important information regarding the legal requirements that apply to Joint Incentive Fund (JIF) projects. Absent this information, the report misleads the reader by implying VA was not following inapplicable legal requirements from the Federal Acquisition Regulations. VA asks OIG to include the following explanatory language regarding JIF law and acquisitions for purposes of clarity and accuracy.

"Federal Health Care Center (FHCC) implementation was a Joint Incentive Fund (JIF) effort under the Department of Veterans Affairs (VA)/Department of Defense (DOD) Joint Executive Committee (JEC) and Health Executive Committee (HEC). As a JIF project, it was performed under the laws according to JIF and the requirements were owned by FHCC.

JIF was established under § 721 of the fiscal year (FY) 2003 National Defense Authorization Act to provide seed money and incentives for innovative DOD/VA joint sharing initiatives to recapture. It is the services "purchased" through the managed care support contracts. The Enterprise JIF initiative for FHCC provided a Proof of Concept/Pilot for one comprehensive medical asset management system across VA and DOD Departments."

Comment 2

Draft location: Page 4, Paragraph 1 [Final report location: page 4, paragraph 2]

The language in the draft paragraph no longer accurately represents the state of the VA Logistics Redesign (VALOR) program. VA asks OIG to revise the paragraph for purposes of accuracy, suggested revisions below:

"The March 2019 memo (reiterating the August 2018 decision memo) recommended the formation of a program office. VA therefore created the VA Logistics Redesign (VALOR) office in early 2019 to manage the implementation of the DMLSS system. However, VALOR did not begin hiring staff until December 2019 and did not receive funding until January 2020 even though the initial site deployment schedule indicated DMLSS was to be deployed at Lovell in October 2019. VALOR is responsible for managing the interagency agreement between VA and the Defense Department and for coordinating with JMLFDC, whose staff are expected to provide the technical expertise required to install, test, and perform post-deployment activities. The VA Logistics Redesign (VALOR) Program Management Office (PMO) is a new office charged with deploying DMLSS across Veterans Health Administration (VHA). VALOR is under the authority of the Assistant Under Secretary for Health for Support (AUSH-S) and the Executive Director (SES) reports directly to the AUSH-S for operational issues. VALOR is also under the authority of VA's chief acquisition officer, who oversees compliance with VA's acquisition policies, discussed further below.

Comment 3

Draft location: Page 10, Paragraph 3 [Final report location: page 11, paragraph 2]

Current language: VALOR leaders expect all requests to follow this process for any business requirements that still need to be met after the deployment of the DMLSS system.

Additional Information for OIG consideration: VA provides additional information regarding this process moving forward.

"VHA is standardizing its logistics and support service business practices and the VALOR Change Control Board (ChCB) will evaluate user-requested changes in the context of VHA requirements for supply chain and support system process standardization, including the timing of accepted user change requests (e.g., if the change will be made to DMLSS or to its technical refresh system, LogiCole). VHA's intent is not reengineer DMLSS to duplicate existing VHA processes, as those processes are proven to be inefficient, ineffective, and highly variable from one facility to another. Rather, VHA intends to implement the federal sector best practices resident within DMLSS, standardized across the enterprise."

Comment 4

Draft location: Page 13, Paragraph 1, Line 14 [Final report location: page 14, paragraph 2, line 14]

Current language: As mentioned earlier, however, the review team found the system did not fully meet 40 of 90 high-priority requirements (44 percent) identified by Lovell staff as essential to successful operations. As shown in table 2, these unmet capabilities and features fell into six operational areas: management of data and information sharing, healthcare technology, equipment, facilities maintenance and repair, financial, and materials as of September 23, 2020.

Additional Information for OIG consideration: The draft report accurately represents a prior point in time. Subsequently to OIG's audit, the state of the VALOR program has changed, the current state is reflected below.

Table 2 in the OIG report reflects some of the priorities advanced through the VALOR ChCB since September 2020 and includes:

- Data Information and Sharing – VALOR (VLR) addressing enterprise reporting for the communities: VLR 20, 73, 88, 89, 104
- Equipment Management – VLR 114 addressing Hand Receipt functionality migration into DMLSS as Loan Assignments
- Financial Management – VLR 6 and 7 addressing the reduced use of the macro workaround functionality for interfaces with VHA's legacy financial management system.

Change Request	Title	ChCB Decision	Status
VLR-6	Automated Payment History in DMLSS	Approved with condition for the next planned release (Desirable)	Development and Testing complete by JMLFDC.
VLR-7	Automated Funds Control in DMLSS	Approved with condition for the next planned release (Desirable)	Development and Testing complete by JMLFDC.

VLR-20	DMLSS Data for Enterprise Reporting (Healthcare Technology Management)	Approved with condition for the next planned release (Desirable)	Submitted to JMLFDC
VLR-73	DMLSS Feed to Corporate Data Warehouse (CDW) for Continued Functioning of Strategic Equipment Planning Guide (SEPG)-Enterprise Equipment Request (EER)	Approved with condition to be implemented immediately (Urgent)	Submitted to JMLFDC
VLR-88	Maintain Enterprise Reporting (Supply Chain Management)	Approved (Resolve Immediately)	Submitted to JMLFDC
VLR-89	Maintain Enterprise Reporting Office of Information and Technology (OIT)	Approved (Resolve Immediately)	Submitted to JMLFDC
VLR-104	Maintain Enterprise Reporting - (OIT), Development, Security and Operations (DevSecOps)	Approved (Resolve Immediately)	Submitted to JMLFDC
VLR-114	Hand Receipt functionality migration into DMLSS as Loan Assignments	Approved (Give High Attention/Essential)	Currently under Technical Elaboration

Comment 5

Draft location: Page 14, Table 2 [Final report location: page 15, Table 2]

VA finds OIG draft does not accurately convey the transition of the FMBT system that will be replacing, Integrated Funds Distribution, Control Point Activity, Accounting and Procurement (IFCAP); VA asks OIG to include the following explanatory language

Current language: "VA made a conscious decision not to expend funds in modifying a 50-year old legacy financial system, Integrated Funds Distribution Control Point Activity Accounting and Procurement (IFCAP), to enable it to interface with DMLSS. VA is developing and implementing macros to deliver the minimum essential financial capability until such time as IFCAP is replaced by the FMBT system. The VA VALOR PMO and FMBT PMO work together to ensure a mutual understanding of VA user requirements and system interface requirements for future implementation."

Comment 6

Draft location: Page 15, Paragraph 2 [Final report location: page 16, paragraph 1, under header "The DMLSS System Did Not Meet Lovell's Key Data and Information-Sharing Requirements, first bullet]

Current language: At the time it was deployed at Lovell, the DMLSS system could not meet any of the six high-priority business requirements identified by the facility's staff for sharing data and information referred to in table 2. The system could not:

1. share information with the corporate data warehouse;

Additional Information for OIG consideration: The draft report accurately represents a prior point in time; the current state is reflected below.

"DMLSS interface to CDW is in process, targeting completion for October 2021."

Comment 7

Draft location: Page 15, Paragraph 2 [Final report location: page 16, paragraph 1 under header "The DMLSS System Did Not Meet Lovell's Key Data and Information-Sharing Requirements", second bullet]

Current language:

2. meet internal reporting requirements for monitoring and managing biomedical equipment;

Additional Information for OIG consideration: The draft report accurately represents a prior point in time; the current state is reflected below.

"When combined with the forthcoming CDW interface and the implementation of Service Now (SNOW), biomed users will have robust reporting capability and will meet or exceed user validated needs."

Comment 8

Draft location: Page 15, Paragraph 2 [Final report location: page 17, first bullet]

Current language:

3. meet external reporting requirements for equipment, healthcare technology, and financial management operations so national program offices can monitor facility performance;

Additional Information for OIG consideration: The report accurately represents a prior point in time; the current state is reflected below.

"In addition to DMLSS reports (standard and ad hoc), the DOD Joint Medical Asset Repository (JMAR) provides a robust reporting capability that can be leveraged by Veterans Integrated Service Networks (VISN) and national program offices to monitor the operations described. DMLSS does have standard reports and it has a very robust ad hoc reporting capability through Business Objects. When combined with the forthcoming CDW interface, this provides exceptionally robust reporting capability for all users, to include VISNs and national program offices."

Comment 9

Draft location: Page 15, Paragraph 2 [Final report location: page 17, second bullet]

The language in the draft paragraph no longer accurately represents the state of the VA Logistics Redesign (VALOR) program. VA asks OIG to revise the statement for purposes of accuracy since National Acquisition Center (NAC) requirements should be documented and addressed by the VA Financial Management Business Transformation, suggested revisions and additional information below:

Current language should be revised to read:

4. share asset information ~~with the National Acquisition Center~~ by the VA Financial Management Business Transformation;

Additional Information for OIG consideration: VA provides additional information regarding this process.

"VALOR was not required by the 2018 FHCC Business Requirements Document (BRD) to share asset information with the National Acquisition Center (NAC). The BRD references a business need to

"interface to the National Acquisition Center (NAC) for sourcing information" (Appendix A; 8.5). The VA Financial Management Business Transformation (FMBT) system is intended to replace VA legacy acquisition systems used by the NAC. NAC requirements will be documented and addressed by FMBT. At that point, FMBT and VALOR will determine the best way to meet the validated user requirements when developing the interfaces between FMBT and DMLSS."

Comment 10

Draft location: Page 15, Paragraph 2 [Final report location: page 17, third bullet]

The language in the draft paragraph does not accurately convey the transition of the FMBT system. VA asks OIG to revise the statement for purposes of accuracy since these are FMBT requirements and not DMLSS requirements, suggested revisions and additional information below:

Current language should be revised to read:

5. exchange data with ~~the Electronic Contract Management System~~ FMBT to initiate contracts and provide project management and oversight; and

Additional Information for OIG consideration: VA provides additional information regarding this process.

"The FMBT system is the system identified to replace VA's legacy Electronic Contract Management System (eCMS). VA does not intend to duplicate capability in FMBT and DMLSS. Contract initiation, project management, and oversight are FMBT requirements; they are not DMLSS requirements."

Comment 11

Draft location: Page 15, Paragraph 2 [Final report location: page 17, fourth bullet]

The language in the draft paragraph no longer accurately represents the state of the VA Logistics Redesign (VALOR) program. VA asks OIG to revise the statement for purposes of accuracy since it was a VHA business decision to not leverage Hazardous Alert and Recall Management (HARM) capability, suggested revisions below:

Recommended language: "DMLSS has the capability to leverage Hazardous Alert and Recall Management (HARM) system to receive and process recall notifications for devices, drugs, biologics vaccines and pharmaceuticals. However, it was a VHA business decision to not leverage the HARM capability, but to continue with use of the National Center for Patient Safety portal for product recalls."

Comment 12

Draft location: Page 20, top of the page [Final report location: page 22, VA Did Not Follow It's Acquisition Framework]

Current language: VA Did Not Follow Its Acquisition Framework

Additional Information for OIG consideration: VA provides additional information that details how VALOR will follow the Acquisition Framework moving forward. VA asks OIG to include the following explanatory language:

"VA used the IT acquisition framework and system, the VA Performance and Accountability Reporting System (VAPARS) and VAPARS predecessor systems to manage DMLSS deployment in VA. VA will ensure that the VA Acquisition Program Management Framework is applied where it does not duplicate the VAPARS framework requirements and as required for deployment of a Government Off-The Shelf system."

VHA is prepared to provide the following supporting documents to OIG and under separate cover:

10NA2 VHA Supply Chain Program Office Organizational Charts Dated 01_31_2018_With Names.pdf

2018-BRD-Final-signatures-1-2019v1.pdf

DMLSS EDM SECVA Signed Final 03272019.pdf

VA-DMLSS_ICD_PDF version 2.3_20180330.pdf

For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.

OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
Review Team	Janet Mah, Director Rhiannon Barron Kelly Perry Michael Reyes Daniel Rico Tanya Zapanas
Other Contributors	Glenn Dawkins Charles Hoskinson Michael Martin Adam Sowells Michael Soybel Rachel Stroup

Report Distribution

VA Distribution

Office of the Secretary
Veterans Benefits Administration
Veterans Health Administration
National Cemetery Administration
Assistant Secretaries
Office of General Counsel
Office of Acquisition, Logistics, and Construction
Board of Veterans' Appeals

Non-VA Distribution

House Committee on Veterans' Affairs
House Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies
House Committee on Oversight and Reform
Senate Committee on Veterans' Affairs
Senate Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies
Senate Committee on Homeland Security and Governmental Affairs
House Subcommittee on Technology Modernization
House Subcommittee on Oversight and Investigations
National Veterans Service Organizations
Government Accountability Office
Office of Management and Budget