



# DEPARTMENT OF VETERANS AFFAIRS OFFICE OF INSPECTOR GENERAL

STATEMENT OF DEPUTY INSPECTOR GENERAL DAVID CASE  
OFFICE OF INSPECTOR GENERAL, DEPARTMENT OF VETERANS AFFAIRS  
*BEFORE THE*  
SUBCOMMITTEE ON TECHNOLOGY MODERNIZATION  
COMMITTEE ON VETERANS' AFFAIRS, U.S. HOUSE OF REPRESENTATIVES  
*HEARING ON*  
GETTING IT RIGHT: CHALLENGES WITH THE GO-LIVE OF  
ELECTRONIC HEALTH RECORD MODERNIZATION  
MARCH 5, 2020

Madam Chair, Ranking Member Banks, and members of the Subcommittee, thank you for the opportunity to discuss the Office of Inspector General's (OIG's) oversight of the Department of Veterans Affairs' electronic health record modernization (EHRM) program. The OIG recognizes the significant level of effort and commitment required by VA to manage and facilitate this massive and complex system implementation, including the tremendous work already conducted by VA staff to date. The OIG's initial oversight efforts of the EHRM program have been primarily focused on the planning, preparation, and other activities related to the initial deployment location—the Mann-Grandstaff VA Medical Center (Mann-Grandstaff VAMC) in Spokane, Washington, and its affiliated facilities.<sup>1</sup> The lessons learned by OIG audit and healthcare teams about VA's preparation and other aspects of implementation related to infrastructure, access to care, and EHRM risk mitigations at this first site will help assess what works and where there are deficiencies that must be addressed as additional facilities go live. Our findings focus on decisions and actions leading up to the initial site deployment and, when the related reports are released, are meant to serve as a roadmap for aspects of future VA implementation efforts. Failure to redress identified issues puts VA at risk for cascading failures, breakdowns, and delays when deploying the new electronic health record (EHR) system nationwide in the years to come.

There are two forthcoming reports with the OIG's findings about the deployment of the new EHR system at the Mann-Grandstaff VAMC. Currently, both are in draft and, consistent with our practices,

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<sup>1</sup> On February 11, 2020, the Executive Director of the Office of Electronic Health Record Modernization (OEHRM) confirmed to OIG staff that the go-live date at Mann-Grandstaff VAMC was delayed. Because the new deployment date is unknown, the go-live date referred to in this statement is the prior VA target of March 28, 2020. Mann-Grandstaff VAMC, part of Veteran Integrated Service Network (VISN) 20, has a medical center and four community clinics located in Ponderay and Coeur d'Alene, Idaho; Libby, Montana; and Wenatchee, Washington.

are being reviewed by the Department. These reviews allow VA offices to comment on OIG findings and recommendations, as well as to provide responsive action plans to implement the recommendations. After receiving VA's responses, OIG staff will integrate that feedback into the final reports and publish them. While it is not the OIG's practice to testify regarding not-yet-published reports, due to the timing of this hearing and VA being in receipt of the reports, the findings will be generally discussed today.

The first OIG report discusses the potential impact of the transition to the new EHR system on patient access to care and the initially available capabilities. The issues go beyond technical concerns, however. For example, the OIG healthcare team found that the Mann-Grandstaff VAMC lacks adequate staffing to navigate the additional strains of the transition and had not received formal, written guidance on minimizing obstacles to patients' access to care. The OIG also found that the risk mitigations facility leaders would employ during the go-live period with incomplete capabilities present a significant risk to patient safety. The second OIG report focuses on the progress and gaps in VA's efforts to update the Mann-Grandstaff VAMC's physical and information technology (IT) infrastructure. The OIG audit team found critical physical and IT infrastructure upgrades have not been completed at the Mann-Grandstaff VAMC in line with VA's own timelines. On February 10, 2020, a VA spokesperson announced that the new EHR's deployment scheduled for March 28, 2020, would be postponed indefinitely because at six weeks prior to go-live, it was only 75–80 percent ready.

## **BACKGROUND**

The OIG's mission is to conduct effective oversight of VA programs and operations to help make certain that veterans receive access to quality health care and benefits in a timely manner, as well as ensure VA funds are appropriately spent. The OIG is conducting early oversight of EHRM because of the tremendous cost and scale of the effort and because prior modernization efforts by VA have been unable to achieve seamless interoperability with the Department of Defense (DoD). Since 2000, the OIG has identified VA's information management as a "major management challenge" because VA has a history of not always properly planning, overseeing, and implementing updates to its critical IT investments.<sup>2</sup>

The VA's legacy EHR system, VistA, has served the department for more than 40 years but lacks needed interoperability and is too costly to maintain. While VA has taken steps to modernize VistA, these attempts have not resulted in a single, interoperable EHR system with DoD. Moreover, the Government Accountability Office (GAO) previously reported that these prior efforts have cost VA over a billion dollars.<sup>3</sup> VA determined that using a common EHR system with DoD will drive better clinical

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<sup>2</sup> Department of Veterans Affairs, "Inspector General's VA Management and Performance Challenges," Fiscal Year (FY) 2019 Agency Financial Report, sec. III, (2019). The OIG is required to report annually on VA's major management challenges.

<sup>3</sup> Government Accountability Office, "[VA Health IT Modernization: Historical Perspective on Prior Contracts and Update on Plans for New Initiative](#)," July 25, 2019.

outcomes by giving healthcare providers a more comprehensive picture of the veteran's medical history and enhance collaboration with VA's community healthcare partners.

On June 1, 2017, then VA Secretary David Shulkin signed a "determination and findings" document declaring VA would acquire the new EHR system from Cerner Corporation using an exception to the Federal Acquisition Regulation requirement for full and open competition. Cerner developed the core platform of DoD's new EHR system, Military Health System (MHS) GENESIS.

The determination and findings provided several rationales for why the acquisition of the new EHR system was in the public's interest. The reasons included the ability for VA to gain efficiencies from DoD lessons learned, accelerated delivery of a modern EHR to support improved health care, and the facilitation of a more consistent patient experience between VA and DoD. In May 2018, VA awarded Cerner an almost \$10 billion contract to replace VistA.

In addition to the Cerner contract, VA estimated also needing \$6.1 billion for program management and infrastructure-related costs during the new EHR's 10-year-deployment. Of the \$6.1 billion, about \$4.3 billion is for infrastructure-related costs, such as IT infrastructure and interfaces. The infrastructure cost estimates do not cover, however, some physical infrastructure upgrades, such as cabling, ventilation, air conditioning, and physical security, to be funded by the Veterans Health Administration's (VHA's) nonrecurring maintenance budget. While the OIG is not aware of any VA estimate for these costs at the current time, VHA has requested facility assessments be completed at all sites by March 31, 2020. Once those are done, VA may have a better idea of gaps between the current and necessary future state of facilities nationwide and be able to develop informed cost estimates. The remaining \$1.8 billion is for program management.

In FY 2020 alone, the OEHRM was appropriated \$1.5 billion in program funding. Of this amount, approximately \$328 million is estimated for infrastructure costs, such as IT infrastructure end-user device upgrades. VHA and OEHRM officials told OIG staff that funding for some of the physical infrastructure upgrades to facilities will come from VHA's nonrecurring maintenance budget, which is in addition to the \$328 million. These infrastructure upgrades have the potential to represent a significant cost to VA, as these upgrades at the Mann-Grandstaff VAMC alone are estimated by VA to cost about \$23.2 million.

### **Developing the New EHR**

OEHRM and Cerner worked with various VA offices to develop the required clinical, technical, and structural readiness deployment requirements for the new EHR. VA established 18 clinical councils composed of subject matter experts from VA, VHA, Cerner, and DoD. These experts reviewed MHS GENESIS's functions and determined which ones needed to be further developed to meet VHA's clinical and administrative requirements.

At eight national and eight local workshops, clinical councils configured the new EHR. Within a workshop session, each council compared VHA's standards with the commercial Cerner software. If the council identified gaps, the council worked with Cerner to design a specific workflow that best met VA needs. A workflow describes business or clinical steps from beginning to end, including key tasks and the roles of the individuals who perform the tasks.<sup>4</sup> Cerner groups related workflows into a capability. For example, the separate functions of medication refills and renewals are part of the outpatient pharmacy capability, whereas inpatient pharmacy functions would be considered a different capability. Capabilities are further organized under a series of "solutions," such as the pharmacy solution that contains all inpatient and outpatient pharmacy functions.

As Mann-Grandstaff VAMC approaches going live, Cerner will train clinical and administrative staff on how to use the new EHR. The two-part integration and validation testing, based on actual patient scenarios, was intended to ensure the new EHR will function correctly. The testing also serves as a rehearsal for going live and provides information for readiness assessments.

## Governance

There are two entities responsible for making the EHRM effort a success. The first is VA's OEHRM, which was established in June 2018. The OEHRM is responsible for ensuring VA properly prepares for, deploys, and maintains the new EHR. This office is also responsible for coordinating with DoD on numerous issues, including applying DoD's lessons learned during its system implementation. While executive leaders from the OEHRM report directly to the VA Deputy Secretary, the office collaborates with VHA and the Office of Information and Technology (OIT).<sup>5</sup> All three VA entities are supposed to work together to upgrade the infrastructure needed to deploy the new EHR system. For example, the OEHRM developed the technical requirements for the new system, while OIT and VHA shared the responsibility to define the requirements for proper IT and physical infrastructure. OIT also aligns projects and plans to support IT infrastructure upgrades and uses local staff for surge support during the transition from VistA to Cerner's system. VHA is responsible for decisions related to medical devices and facility upgrades, and maintenance of the physical infrastructure. The OEHRM has a director of infrastructure readiness who provides oversight of the infrastructure upgrades related to EHRM, but this position was vacant until August 2019.

On March 1, 2019, DoD and VA jointly established the Federal Electronic Health Record Modernization (FEHRM) Program Office. This office replaced the Interagency Program Office as the single decision-

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<sup>4</sup> A specific workflow might describe the entire process from the time a patient comes to the outpatient pharmacy window in need of a prescription refill to the successful completion of the task. A different workflow might describe, from start to finish, the steps required by both patient and provider to renew a prescription.

<sup>5</sup> On February 21, 2020, VA Secretary Robert Wilkie signed a memo designating the Office of Enterprise Integration as the integrator of the EHRM project, reporting progress and challenges directly to him. The memo did note that the Office of Deputy Secretary will retain responsibility for fiscal oversight as required by the *Further Consolidated Appropriations Act, 2020*, Public Law 116-94.

making authority for all future EHRM efforts for VA and DoD. As of December 2019, many details of this Office were still being determined, but Section 715 of the conference report to the *National Defense Authorization Act for Fiscal Year 2020* states that the Offices' Director and Deputy Director will serve four-year terms with DoD and VA alternating as the selecting agencies for both positions.

### **Deployment Schedule**

VA's deployment schedule includes three Initial Operating Capability (IOC) sites followed by 47 additional cycles, which OEHRM calls "waves," for the remaining sites VA-wide through FY 2027. The three IOC sites are Mann-Grandstaff VAMC and two sites in the Puget Sound Health Care System in Washington—the Seattle VAMC and American Lake VAMC in Tacoma along with their associated facilities. For the IOC sites to be effective learning grounds, infrastructure upgrades should be in place six months before the go-live date so that weaknesses can be identified and addressed. This is a clear takeaway from the DoD experience. OEHRM leaders have testified to this Subcommittee their commitment to making timely infrastructure upgrades six months before going live as a standard.<sup>6</sup>

### **Go-Live Date & EHR Capabilities**

The day that a site turns on the new EHR system at the IOC site for personnel to use is being referred to as the go-live date. However, going live does not mean that the full system with all functionalities will be up and running. As early as July 2019, OEHRM determined that not all EHR functions would be available for the planned March 2020 go-live date. In response, OEHRM leaders made the decision to deploy EHR functions in separate blocks at different times. These separate blocks are called "capability sets." Capability Set 1 was scheduled to be deployed in March 2020, with Capability Set 2 scheduled for deployment approximately six months later. The new EHR has more than 300 capabilities in total, and while the majority are included in Set 1, there are some significant functions missing. For example, cardiology and some aspects of telehealth are in Set 2. As discussed later in this testimony, the absence of an online patient portal in Set 1 for medication refill requests is a significant concern.

Once Mann-Grandstaff VAMC goes live with the new EHR system, care providers and administrators will use it for clinical and administrative work, while relying on the Joint Longitudinal Viewer (JLV) to view records not contained in the new EHR. These include records from VA medical centers not yet

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<sup>6</sup> In November 2018, the OEHRM's Chief Technology Integration Officer told this Subcommittee that the office planned to have technology readiness done six months before going live. On June 12, 2019, the OEHRM's Executive Director confirmed to the Subcommittee VA's plan for infrastructure to be ready six months prior to the go-live date. Later in the hearing, OEHRM's Chief Technology Integration Officer admitted that not all infrastructure would be completed by the go-live date. In November 2019, in an interview with OIG staff, the OEHRM's Executive Director confirmed that VA's objective to have infrastructure completed six months before the system is deployed at the IOC sites is "critical" to mitigating setbacks that occurred at DoD's sites. Additionally, OEHRM's integrated infrastructure plan, dated November 2018, stated infrastructure upgrades are "expected to be complete no later than six months prior to the go live event."

using the new EHR.<sup>7</sup> Similarly, all VA staff who do not have the new EHR will be required to view facilities' patient information through JLV. Facility staff will be required to switch back and forth between the new EHR and JLV to correctly capture all clinical and administrative information.

When IOC sites go live, providers will need to adjust to using the new EHR for tasks associated with taking care of patients. They also will have to view consult referrals, active inpatient orders, and active outpatient laboratory and imaging orders in JLV, and then manually reenter the information into the new EHR to ensure action. For example, if a clinician ordered an x-ray in VistA for a patient, and that x-ray has not been acted upon by the go-live date, the clinician must find the order in JLV and manually reenter it into the new EHR so that the study is documented, scheduled, and completed.

In July and August 2019, OEHRM presented the capabilities in Set 1 and Set 2 to leaders at the Mann-Grandstaff VAMC and the VA Puget Sound Health Care System, the initial operating locations originally scheduled for spring 2020 deployment. Due to the absence of some required functions in Set 1, VA Puget Sound Health Care System leaders decided to delay their IOC rollout until the completion of Set 2 out of concern for the clinically sophisticated nature of their healthcare system. Mann-Grandstaff VAMC leaders decided to continue with the March 2020 go-live date and began developing mitigation strategies for the clinical and administrative function gaps between the deployments of Set 1 and Set 2.

The first report in this testimony discusses VA's work to mitigate risks during the new EHR's transition that will impact the facility's ability to provide timely care.

## **REVIEW OF ACCESS TO CARE AND CAPABILITIES DURING THE TRANSITION TO VA'S NEW EHR**

The OIG focused this review on the initially available capabilities and the potential impact of the EHR transition on access to care at the Mann-Grandstaff VAMC.

### **Facility Management of Access to Care Risks**

The OIG found that Mann-Grandstaff VAMC leaders consulted with DoD staff who transitioned to the Cerner system in 2017 and experienced a 30-percent decrease in productivity for 18 months following the transition. This reduction will generate access-to-care risks that require mitigation strategies. Thus, facility leaders used a 30-percent decrement in productivity over a 12-to-24-month period as a measure when generating a mitigation plan. The Mann-Grandstaff VAMC's mitigations include adding facility staff, enhancing clinical space, changing clinic processes, and increasing the use of community care.

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<sup>7</sup> The JLV is a web application that provides an integrated, read-only view of EHR data from VA, DoD, and some community partners through the Veterans Health Information Exchange, a program that allows participating community providers to securely share health information.

Facility leaders told OIG staff that VHA's Office of Healthcare Transformation (OHT) gave strong support to help prepare for decreased access to care. However, the OIG's review of OEHRM activities during the last two years did not reveal evidence of final operational guidance to the Mann-Grandstaff VAMC on the matter. Absent that evidence of written guidance, facility leaders utilized a self-designed mitigation plan.

In June 2018, facility leaders told the VISN Director that a projected staffing shortage might prevent Mann-Grandstaff VAMC from meeting the access to care challenges of the new EHR implementation. Thus, in September 2018, facility leaders requested hiring 102 employees (over time this request increased to 108). In April 2019, despite Mann-Grandstaff VAMC leaders' concerns regarding staffing levels for the new EHR implementation, VISN 20 conducted an analysis of fiscal resources, which led facility leaders to initiate a hiring pause, with an aim to meet the VISN's goal to decrease overall staffing by 88 positions.<sup>8</sup> The hiring pause continued until October 2019. As of February 5, 2020, 48.5 of 108 new staff had been onboarded.

The OIG identified that Mann-Grandstaff VAMC leaders addressed recent in-house access to care challenges within primary care, but a significant backlog of 21,155 community care consults remained as of January 9, 2020. The OIG found that while facility staff have been working additional hours since December 2019 to reduce the open community care consult backlog, that same staff will face other obstacles when going live due to the increased manual work needed to schedule community care owing to Set 1's limited capabilities. VHA and the facility are also aware that community care access will be challenged by increasing demand and limited supply in the Spokane area.

### **Capability Limitations**

OEHRM and Cerner determined in July 2019 that not all anticipated capabilities of the new EHR would be available for the initially proposed go-live date. Mann-Grandstaff VAMC leaders worked with OHT and OEHRM to generate mitigations for the incomplete capabilities in Set 1 at the go-live date.

By August 2019, both OHT and facility staff developed processes to track mitigation efforts. The facility mitigation tracker has 84 strategies for minimizing the impact of the missing capabilities classified as moderate and high risk. Since then, facility risks and mitigations have been regularly updated and tracked with progress updates reported to the wider group of project stakeholders.

Facility leaders and staff told the OIG healthcare team of concerns related to the deployment of capability sets including

- Not knowing what capabilities would be available at the IOC;

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<sup>8</sup> A VISN leader reported that in the 2018 fiscal year, substantial hiring by Mann-Grandstaff VAMC led to a budget deficit. Facility leaders acknowledged to the OIG that budget planning errors for the 2019 fiscal year led to a projected deficit, which exceeded \$20 million for personnel. These events complicated planning for adequate staff hires during the EHR transition.

- Changing capabilities to meet the go-live timeline, instead of changing the go-live timeline to meet the completion of capabilities;
- Challenges in developing training due to incomplete information regarding which capabilities would be available at the IOC;
- Limitations in Set 1 that present as “significant handicaps at day zero;”
- Requiring staff to access two systems (JLV and the new EHR) while providing patient care;
- Feeling compelled to go-live in March 2020, without the full capability being ready; and
- Inability to accurately predict patient safety risks because of incomplete information about which capabilities would be available at the IOC.

For example, online prescription refills, the most popular mechanism for refilling prescriptions at the Mann-Grandstaff VAMC, was identified as a capability that would be absent at the go-live date.

Examples of mitigation plans include the need for

- Care in the community staff to navigate between the new EHR, JLV, and other third-party software to determine patient eligibility, and track consult approval and status;
- Primary care teams to manually enter all non-VA patient medications to ensure a complete record of active medications in the new EHR; and
- Patients who previously ordered refills of medications through the MyHealtheVet portal to use alternative means for refill requests.<sup>9</sup>

The OIG reviewed facility refill requests during calendar year 2019 and found the MyHealtheVet portal was the most frequently used method for patients to request prescription refills.<sup>10</sup> Facility leaders and staff told the OIG of safety concerns related to losing the MyHealtheVet electronic refill portal and that mitigation strategies seemed insufficient to meet patient needs. This mitigation plan requires patient involvement, and as of January 15, 2020, facility leaders had not yet communicated with patients about the new electronic prescription refill process.

The OIG determined that the work-arounds needed to address the removal of the online prescription refill service create additional barriers for patients to refill medications. The barriers created by these processes present a patient safety risk and the mitigation strategies are insufficient to significantly reduce those risks should a decision to go live at a future date involve only Set 1. The OIG was unable to determine all patient safety risks associated with the new EHR, but the work-around for the electronic

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<sup>9</sup> MyHealtheVet is an online personal health portal in which patients can schedule appointments, view medical records, refill prescriptions and send secure messages to their providers.

<sup>10</sup> My HealtheVet, *Get to Know Rx Refill Options*, <https://www.myhealth.va.gov/mhv-portal-web/ss20180423-prescription-refill-options-for-veterans>. (The website was accessed on January 17, 2020.) VA medical facilities provide patients with several methods to refill VA prescribed medications: online through the MyHealtheVet portal, by phone through the automated telephone refill line, in person at a VA pharmacy, and by mail through the VA mail order pharmacy.

prescription refill process alone presents significant concerns as it may impact a patient's ability to fill a life-sustaining medication.

## **DEFICIENCIES IN INFRASTRUCTURE READINESS FOR DEPLOYING VA'S NEW ELECTRONIC HEALTH RECORD SYSTEM**

In order to deliver patient care using the new EHR, significant infrastructure upgrades are needed to VA's physical and IT infrastructure. The OIG conducted an audit to determine whether VA's infrastructure readiness activities are on schedule at the Mann-Grandstaff VAMC and associated facilities. The audit team examined physical and IT infrastructure to determine VA's readiness to proceed with system implementation and to identify infrastructure challenges that could impact the overall system deployment schedule.

Physical infrastructure refers to the underlying foundation that supports the system, such as electrical; cabling; and heating, ventilation, and air-conditioning. IT infrastructure includes network components such as wide and local area networks, end-user devices (e.g., desktop and laptop computers, and monitors), and medical devices.

VA has recognized the need to apply lessons learned from DoD to avoid deployment setbacks, and as discussed earlier, OEHRM leaders testified before this Subcommittee in June 2019 that having the infrastructure in place six months before system deployment to sites was a program goal, meaning that infrastructure upgrades should have been completed by the end of September 2019.

The OIG found critical physical infrastructure upgrades had not been completed at the Mann-Grandstaff VAMC as of the audit team's site visit in October 2019—less than the six months prior to the go-live date. The lack of important upgrades jeopardizes VA's ability to properly deploy the new EHR system and increases risks of delays to the overall schedule.

### **Physical Infrastructure Was Not Upgraded Timely, with Many Upgrades Pending Completion After Going Live**

The audit team found some infrastructure upgrades intended to mitigate diminished system performance are not projected to be completed until months after going live. For example, modifications to telecommunications rooms were not estimated to be completed until up to four months after March 2020. Furthermore, the audit team followed up with VA and confirmed that as of February 25, 2020, contracts had yet to be awarded for some critical physical infrastructure upgrades. Until modifications are complete, many aspects of the physical infrastructure existing in the telecommunications rooms (such as cabling) and data center do not meet national industry standards or VA's internal requirements.

On the week of October 7, 2019, less than six months prior to go-live, the audit team found that all 24 telecommunications rooms and the data center at the Mann-Grandstaff VAMC and associated facilities still needed work completed in order to meet industry and VA standards. Table 1 illustrates the findings from these telecommunications rooms' inspections.

**Table 1. Summary of Telecommunications Room Deficiencies Identified at the Mann-Grandstaff VA Medical Center and Two Associated Facilities (October 7–11, 2019)**

	Cabling Upgrades Needed	Patch Panel Upgrades Needed	Equipment Rack Clearance Not to Standard	Poor Cable Management	Improper Grounding of IT Equipment	Proper Power Supply Lacking
<b>Rooms with deficiencies</b>	22	4	20	19	16	4
<b>Number of rooms inspected</b>	24	19	21	24	24	24
<b>Percent not compliant</b>	91.7%	21.1%	95.2%	79.2%	66.7%	16.7%

*Source: OIG inspections of telecommunications rooms at Mann-Grandstaff VAMC and two associated facilities*

The Mann-Grandstaff VAMC’s data center will house Cerner’s servers and act as the main computer room. The audit team identified issues with data center infrastructure, including substandard cabling and improper management, inadequate fire sprinkler systems clearance, and the potential for leaks from the facility’s cafeteria located above the data center.

Finally, properly controlling operating temperature in telecommunications rooms helps ensure equipment longevity. An OEHRM official stated that increased temperature in the telecommunications rooms when going live was his biggest concern. Installation of additional equipment will increase the rooms’ temperatures, requiring more cooling. The interim solution to prevent increased temperatures was to place temporary exhaust fans in rooms, replacing them later with a permanent cooling system. The audit team also found the potential for additional costs by using the temporary exhaust fans only to replace them later with a permanent cooling system.

**Critical IT Infrastructure Was Not Upgraded Six Months Before Going Live and Medical Devices May Not Be Able to Connect to the New System**

The audit team also identified deficiencies with the preparedness of IT infrastructure and found the medical center and its associated facilities did not have critical IT infrastructure upgrades completed six months before the March 2020 go live date. For example, as of the week of the audit team’s site visit in October 2019, about 31 percent of the needed end-user computing devices had yet to be received. And, as recently as early January 2020, VA had yet to receive about 51 percent of the medical devices needed for going live as well as an approval from DoD to connect the medical devices to the new system.

**The Infrastructure Upgrade Schedule Was Likely Unrealistic for the March 2020 Go-Live Date and Could Contribute to Further System Deployment Delays**

Infrastructure upgrades were not completed at the Mann-Grandstaff VAMC in a timely manner to properly prepare for the new EHR deployment primarily because VA lacked

- Comprehensive site assessments to determine a realistic go-live date,

- Requisite specifications for infrastructure and appropriate monitoring mechanisms, and
- Adequate staffing.

The OIG concludes in its upcoming report that VA committed to an aggressive, but likely unrealistic, deployment date of March 2020 without having the necessary information on the facility's infrastructure. Specifically, on June 26, 2018, VA announced the medical center's go-live date of March 2020; however, it was not until nearly a year later in May 2019 that an assessment was performed identifying physical infrastructure needs. Also concerning is that OEHRM first made infrastructure requirements for physical infrastructure available to VHA at a technical design session in April 2019, just five months before the necessary infrastructure was supposed to be ready for the go-live event.

In June 2019, OEHRM leaders told Congress that infrastructure upgrades would not be complete before going live and indicated the infrastructure upgrades were not necessary to support the March 2020 go-live event. In addition, as of November 1, 2019, the infrastructure requirements specifications document was still not approved by VHA. While OEHRM, VHA, and OIT share the responsibility for infrastructure readiness upgrades, disagreements on specific standards contributed to delays.

Similarly, for IT infrastructure, the Current State Reviews were completed in July 2018, which first identified the need for end-user device upgrades to support the new system.<sup>11</sup> This gave VA about 14 months (until September 2019) to achieve its goal for the completion of IT infrastructure upgrades. This was about eight fewer months than the approximately 22 months the OEHRM Infrastructure Readiness Planner estimated that it takes from the time the need for a device is identified to delivery to an end user. Also, VA did not begin procuring end-user devices until April 2019, leaving only about five months for delivery to the Mann-Grandstaff VAMC and for the actions needed for end-user readiness such as configuring. Finally, it is evident that VA needed more time than allotted to complete actions necessary for receiving approval from DoD for the authority to have medical devices connect to the new system.

Despite OEHRM's Executive Director confirming to OIG staff in November 2019 the criticality of infrastructure upgrades being completed six months prior to the go-live date, it is evident that OEHRM and VHA personnel knew that physical and IT infrastructure upgrades could not be completed within this time frame. Therefore, the infrastructure schedule that was developed was unrealistic.

### **Management Controls Were Lacking and Key Staffing Positions Were Vacant**

VA lacked some management controls needed to effectively monitor infrastructure readiness at the Mann-Grandstaff VAMC. For example, the OEHRM internal tracking tool was not put into use until June 2019, only three months before VA's goal to have infrastructure upgrades complete. As of November 2019, an OEHRM employee reported that no comprehensive tool existed at the national

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<sup>11</sup> Among other reasons, the Current State Reviews were conducted by Cerner to assess gaps in the facility's IT infrastructure and provide VA leaders with finding and recommendations. The Current State Reviews did identify the need for significant IT infrastructure upgrades, such as new computers, monitors, printers, scanners, and bar code readers.

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program level to monitor upgrades to critical patient care medical devices. Although OEHRM was conducting internal briefings that included infrastructure readiness, the lack of a comprehensive, effective tracking mechanism increases the risk that milestones will not be achieved.

The OIG team found VA lacked staff to oversee the program's infrastructure readiness. As of November 2019, four of six staff positions on the infrastructure readiness team were still unfilled, and the infrastructure readiness director position was vacant until filled in August 2019, or about two months before VA's goal of having infrastructure upgrades complete six months prior to the go-live date. Without this dedicated position being filled early in the infrastructure planning process, VA would be less likely to spot potential issues stemming from deficient infrastructure.

Because the second IOC site will not deploy the new EHR until November 2020, the first three waves of site deployment, scheduled to go live in August, October, and November 2020, have also been postponed until 2021. By not having infrastructure ready for the deployment of the new EHR, VA could experience issues like those encountered by DoD and have less time to respond to and correct infrastructure-related deficiencies before deploying the system at future sites. In turn, this could delay advancing VA's goal of improving patient care through the modernization initiative.

### **Inadequate Safeguarding of Critical Physical Infrastructure at the Mann-Grandstaff VAMC Increases Risks to System Security**

The OIG staff also found, while not directly affecting system deployment, some security vulnerabilities at the Mann-Grandstaff VAMC. Neither Cerner nor VA identified these vulnerabilities because their assessments do not call for identification of physical security concerns. A Mann-Grandstaff VAMC employee recognized that damage to physical infrastructure due to unauthorized access could result in campus-wide loss of connectivity and patient care downtime for an extended period.

## **CONCLUSION**

This Subcommittee and VA have made it a priority to improve VA's IT systems. The OIG's work highlighted in this statement reveals there are still considerable challenges, particularly regarding plans to ensure continued access to timely health care for veterans and incomplete critical physical and IT infrastructure upgrades at the Mann-Grandstaff VAMC and associated facilities. The OIG is committed to providing practical recommendations that flow from our oversight work to help VA deploy the new EHR efficiently and in a manner that improves veterans' experiences. The OIG will continue to monitor aspects of VA's EHRM effort to help realize the improvements sought by Congress and our nation.

Madam Chair, this concludes my statement. I would be happy to answer any questions you or other members of the Subcommittee may have.