STATEMENT OF DEPUTY INSPECTOR GENERAL DAVID CASE
OFFICE OF INSPECTOR GENERAL, DEPARTMENT OF VETERANS AFFAIRS
BEFORE THE
SUBCOMMITTEE ON TECHNOLOGY MODERNIZATION,
US HOUSE OF REPRESENTATIVES COMMITTEE ON VETERANS' AFFAIRS
HEARING ON
EHR MODERNIZATION DEEP DIVE: CAN THE ORACLE PHARMACY SOFTWARE BE MADE SAFE AND EFFECTIVE?
FEBRUARY 15, 2024

Chairman Rosendale, Ranking Member Cherfilus-McCormick, and Subcommittee members, thank you for the opportunity to discuss the Office of Inspector General's (OIG) oversight of the Department of Veterans Affairs' electronic health record modernization (EHRM) program's pharmacy functions. The OIG recognizes the enormity and complexity of converting VA's electronic health record (EHR) system for millions of veterans receiving VA care and acknowledges the significant work and commitment of VA staff to accomplish this task. For more than four years, OIG staff have been engaging with VA employees at EHRM deployment sites in Washington, Oregon, Ohio, Illinois, and other locations, and have observed their unwavering commitment to prioritizing the care of patients while mitigating implementation challenges.

The OIG has published 16 products addressing the EHRM program and system implementation between April 2020 and this hearing with a total of 70 recommendations for corrective action, not including the currently unpublished products that will be discussed at this hearing. Though this statement does not detail all of these previous reports and their findings, a comprehensive list of recommendations has been included as an appendix. Each oversight report is meant to help VA improve the new system's implementation and support prompt, quality health care for veterans. Failure to satisfactorily complete the corrective actions associated with these recommendations can increase risks to patient safety and the ability to provide high-caliber care at the new EHR sites. Fully addressing oversight recommendations can also help minimize considerable cost escalations and delays in potential future deployments. The OIG is therefore concerned about the 18 recommendations that have been open (not implemented or fully addressed) for longer than two years. While the OIG follows up with VA on open recommendations every 90 days, VA program officials can submit evidence of sustained progress or the completion of corrective actions at any time to facilitate closing recommendations. The statement that follows emphasizes the need to not only implement recommendations but sustain change by fully addressing the problems identified in OIG reports. For example, a March 2022 report is highlighted to

demonstrate that more work is required on VA's part to ensure that longstanding medication management issues have not yet been completely resolved.[1]

In addition, there are three forthcoming publications containing OIG findings about the operation of the new EHR system. One report will specifically address pharmacy-related patient safety issues. Although the other two are not related to pharmacy concerns, it is important to alert the members of this subcommittee that these upcoming reports will identify shortcomings in the appointment scheduling package of the new EHR that can affect veteran engagement and appointment wait times. Currently, these publications are in draft and, consistent with OIG practices, 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 any feedback into the final reports and publish them. While it is not the OIG's routine practice to testify regarding not-yet-published reports, due to the timing of this hearing and VA being in receipt of the drafts, the pertinent oversight findings will be generally discussed today.

This testimony will first focus on the OIG report under VA review that discusses pharmacy-related patient safety issues and users' challenges with the new EHR at the VA Central Ohio Healthcare System in Columbus (referred to as "Columbus" throughout this statement) and across the nation. This report underscores OIG concerns that pharmacy and medication management issues are not fully resolved, although highlighted in OIG reports as early as April 2020.[2] This statement will then discuss the pending publication that highlights continued issues with the new EHR's patient appointment scheduling package experienced by facility staff at EHR deployment sites. The last upcoming OIG report on the new EHR examines an appointment scheduling package failure that contributed to the death of a patient.

PHARMACY-RELATED PATIENT SAFETY ISSUES CONTINUE AT SITES USING THE NEW EHR

In May 2021, after VA's first deployment of the new EHR at the Mann-Grandstaff VA Medical Center in Spokane, Washington, a pharmacy patient safety team under the VA National Center for Patient Safety (NCPS) identified patient safety issues and staff experiencing multiple concerns regarding the system's usability. For example, updates to a patient's active medication list were not routinely reflected at the patient's next appointment. The OIG found that, despite being aware of users' ongoing challenges in 2021, VA leaders elected to deploy the new EHR at four more VA medical centers. Following subsequent deployment of the new EHR to Columbus in April 2022 (more than a year later), the OIG determined that previously identified NCPS-identified patient safety and usability issues were still a

[1] VA OIG, *Medication Management Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington*, March 17, 2022. This report focused on the challenges facing clinicians using the medication management system, not specifically on pharmacy operations.

[2] VA OIG, *Review of Access to Care and Capabilities during VA's Transition to a New Electronic Health Record System at the Mann-Grandstaff VA Medical Center in Spokane, Washington*, April 27, 2020.

factor in many of Columbus's pharmacy-related patient safety reports. Although Oracle Health has since resolved some of the NCPS-identified issues, the OIG is concerned that the new EHR will continue to be deployed at medical facilities prior to resolving the remaining issues related to inaccurate medication ordering, reconciliation, and dispensing that can affect patient safety.[3]

The most recent OIG work on pharmacy-related patient safety issues began with a review of an allegation that the new EHR's implementation led to a prescription backlog at Columbus after the system went live on April 30, 2022. The OIG found that facility leaders took timely and sustainable steps to manage the backlog issue. During its review, however, the OIG identified other unresolved high-risk patient safety issues, including patient medication inaccuracies, user challenges, inaccurate medication data, staff's creation of numerous work-arounds to provide patient care, a volume of staff educational materials for pharmacy-related functions that was overwhelming, and insufficient staffing.

National Pharmacy-Related Patient Safety Issues

EHR information is communicated between VHA facilities through different channels, including the Joint Longitudinal Viewer (JLV) and the Health Data Repository (HDR).[4] For patients who travel to receive care at any medical centers using the legacy EHR, the JLV application allows healthcare providers to access a "read only" version of a patient's medical record from both the legacy and new systems.[5] The HDR is a database that stores patient-specific clinical information, including medications and allergies, from both the new and legacy VA EHR systems.[6] Providers use this information to support treatment decisions. Every medication used in VHA has a VA Unique Identifier (VUID), which is an assigned, distinct number. Because veterans are eligible to receive health care at any VA facility, there must be accurate medication information available to providers at all facilities. In this case, when a patient is prescribed a medication at a new EHR site, that medication's unique identifier is sent to the HDR. If that same patient seeks care from a legacy EHR facility provider, and this provider enters a medication order, a legacy system software interface accesses the medication's VUID from the HDR database to perform a safety check. This process, which relies on the accuracy of the information in the HDR, verifies the medication being prescribed is safe and compatible with the medications and allergies previously documented in the patient's record, including medication orders coming from the new EHR.

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[3] Oracle acquired Cerner in June 2022, changing the name of the entity to Oracle Cerner and again to Oracle Health. The statement uses Oracle Health for readability, while some events occurred under prior business names.

[4] JLV is a read-only, noneditable, web-based application for viewing patient electronic health records from VA and community partners through a customizable interface. JLV plays an important role in VA's transition to the new EHR as it allows users to see EHR data at other sites, regardless of the system in place.

[5] The OIG uses the term "legacy EHR" to refer to Veterans Health Information Systems and Technology Architecture (VistA), the system used prior to the Oracle Health EHR product.

[6] Va.gov, *VistA Monograph*, July 18, 2023. The VA Health Data Repository (HDR) is "a national, clinical data storehouse that supports integrated, computable and/or viewable access to the patient's longitudinal health record."

Software Coding Errors Created Patient Safety Issues

An error in Oracle Health's software coding resulted in the widespread transmission of incorrect VUIDs from new EHR sites to legacy EHR sites. The OIG learned these unique identifiers became inaccurate during their transmission to the HDR when fills for certain prescriptions were processed through the Consolidated Mail Outpatient Pharmacy (referred to as the mail order pharmacy).[7] In short, this error created the potential for medication-related patient safety issues.

On March 31, 2023, staff from a legacy EHR site noted an incorrect medication order check when prescribing a new medication to a patient who had previously received care and medications at a new EHR site. This led to the discovery of the VUID transmission error, and an issue brief was sent later that same day toto VA and VHA leaders describing the event and the cause. VHA pharmacy leaders also alerted VHA personnel and leaders of the issue's potential clinical impact. The email provided specific instructions on how to mitigate the issue and requested recipients to "please share widely." Days later, patient safety managers across VHA were told that drug-to-drug interactions, duplicate medication orders, and allergy checks were not functioning as expected, and they were provided with remedial actions.

Oracle Health applied a successful software patch on April 7, 2023, to ensure accurate VUIDs were applied to all mail order pharmacy–processed prescriptions from that date forward. However, the OIG learned the incorrect VUIDs sent from new EHR sites and stored in the HDR from as far back as October 2020 were not corrected. A VHA leader shared that on November 29, 2023, the VHA Pharmacy Council reported withdrawing a request for Oracle Health to send corrected medication VUID data to the HDR. The council based its decision on the presumption that all remaining inaccurate medication VUIDs that were related to the mail order pharmacy prescriptions would expire in early April 2024, one year from the application of the patch, and the data would be corrected at that time.[8]

The OIG is concerned that patient medication data remains inaccurate almost a year after VA learned of the issue. The mail order pharmacy-related data generated from approximately 120,000 patients served by new EHR sites are still incorrect. These patients face an ongoing risk of an adverse medication-related event if they receive care and medications from a VA medical center using the legacy EHR system.

Other Medication-Related Data Transmission Issues Pose Threats to Patient Safety

The OIG learned that research into the cause of the mail order pharmacy–related VUID error described above led to the discovery of other problems associated with transmission of medication and allergy

[7] The Consolidated Mail Outpatient Pharmacy is a centralized automated pharmacy system comprised of seven pharmacies that provide mail order medications to VHA patients. The OIG did not find any errors on the part of mail order pharmacy staff or operations, and patients received their correct medications.

[8] In VHA, most prescriptions expire one year after the initial medication fill.

information from the new EHR to the HDR. On June 15, 2023, the NCPS sent a patient safety notice to VHA patient safety staff concerning data transmission issues and errors (mail order pharmacy-related and others), including missing, duplicate, or incorrect medication and allergy information being transmitted. The consequences of inaccurate medication information transmission to the HDR include

- patients' medications that have been discontinued or stopped by new EHR-site providers appear in the legacy EHR as active and current prescriptions;
- allergy warning messages not appearing when intended or inappropriately appearing for the wrong medication;
- duplicate medication order checks not appearing when intended or inappropriately appearing for the wrong drug; and
- patients' active medication lists having incomplete or inaccurate information, such as missing prescriptions, duplicate prescriptions, or incorrect medication order statuses.

VHA staff were told to remain aware that legacy EHR sites may have inaccurate medication information for patients treated at both legacy and new EHR sites. An Electronic Health Record Modernization Integration Office (EHRM-IO) data leader noted that EHRM-IO and Oracle Health's original testing focused on data transmission from the new EHR to the HDR, but no entity verified the data's accuracy when accessed by legacy EHR users.

When that June 15 notice was sent, there were no solutions and no clear determination of which patients were affected or may have experienced harm. As VHA cannot determine which patients were at risk of a patient safety event from the data transmission errors, a VHA leader informed the OIG that all patients who have been prescribed any medications at a new EHR site or have medication allergies documented at a new EHR site are "at risk." Per VHA data, as of September 2023, approximately 190,000 patients had a medication prescribed and 126,000 patients had an allergy documented at a new EHR site. Approximately 68,000 patients were in both groups, totaling about 250,000 unique patients.[9]

The OIG is concerned that patients served by a new EHR site who also receive care at a legacy EHR site may be prescribed contraindicated medications and that healthcare providers at legacy sites are making clinical decisions based on inaccurate data. Further, the OIG is not confident in EHRM-IO leaders' oversight and control of the new systems' HDR interface programming.

For example, the OIG learned of a patient with posttraumatic stress disorder and traumatic brain injury with adrenal insufficiency whose care was influenced by inaccurate medication data when the patient was not prescribed a critical lifesaving therapy upon admission to a residential rehabilitation treatment program at a legacy EHR site. Four days prior to admission, a legacy EHR site pharmacist used the

[9] The data represents the most recent update received by OIG from VHA of the number of unique patients who have had any medication prescribed or any allergy documented at a new EHR through September 29, 2023.

legacy EHR to perform a medication reconciliation for this patient. The data available to the pharmacist conducting the reconciliation did not include the patient's most recent prednisone prescription that had been ordered by a medical provider in a facility using the new EHR.

A nurse practitioner performed another reconciliation when the patient was admitted to the residential program, but the patient was unsure of all their medications. As the most recent prednisone prescription was not visible in the legacy EHR, the prednisone appeared to have been completed at least three months prior to admission and was therefore not prescribed in the admission medication orders.

On the fifth day in the residential program, the patient began exhibiting unusual behaviors associated with the lack of prednisone. The patient realized they needed more prednisone, but the nurse explained there was no prednisone on the patient's medication list. Eventually, the patient found the active prednisone order on their personal cell phone and had to be transferred to a local emergency room for care. This example also shows the difficulty with completing numerous, accurate manual reconciliations, particularly for patients with impaired cognition.

Patients at New EHR Sites Have Not Been Notified of the Risk of Harm Related to Data Transmission Issues

Per VHA policy, a disclosure is warranted for harmful or potentially harmful adverse events that "have a potential to affect, or may have already affected multiple patients at one or more VA medical facilities."[10] VHA leaders convened a Clinical Episode Review Team (CERT) to discuss the issues and errors related to the transmission of inaccurate pharmacy data from the new EHR to the HDR.[11] On June 21, 2023, the CERT executive director sent a memorandum addressed to the under secretary for health outlining the team's review and recommendations, which included a communication plan to patients who have received a prescription through a new EHR site. The memorandum and plan specified that the intended patient communication was not a "disclosure" but a "general patient safety/awareness communication" encouraging patients to collaborate with their providers during the medication reconciliation process. The memorandum also documented that the CERT was still determining the feasibility of doing a look-back review to identify patient harm.

A CERT leader emailed the communication plan to VHA, Veterans Integrated Service Networks (VISN) 10 and 20, and Columbus leaders on August 7, 2023. When asked, the CERT executive director told the OIG there was no assigned timeline and that it was left to leaders from VHA, VISNs, and Columbus to move forward with the plan or request changes. In late October 2023, a Columbus leader told the OIG,

[10] VHA Directive 1004.08, *Disclosure of Adverse Events to Patients*, October 31, 2018.

[11] The deputy under secretary for health for operations and management convenes a CERT to conduct a "coordinated triage process for review of each potential adverse event that may require large-scale disclosure." The CERT met between April 13 and May 15, 2023.

"there were no actions taken as it was not clear at the time of the CERT communication . . . that recommended communications were finalized."

As of September 2023, about 250,000 veterans—who either received medication orders or had medication allergies documented in the new EHR from October 2020—may be unaware of the potential risk for a medication- or allergy-related patient safety event if they receive care at a legacy EHR site.[12] A VHA leader told the OIG that, as of December 2023, they had no knowledge of the development of a comprehensive strategy to conduct a look-back of the care of the growing number of patients who have received and continue to receive services, including medication prescriptions, at legacy sites.

Risks to Patients from HDR Transmission Issues Remain Despite VHA's Mitigation Actions

As early as March 31, 2023, VHA leaders sent the series of notifications described above about the transmission issues and outlined actions to offset the risk of patient harm. These notifications included instructions for legacy site leaders to have medical providers perform multistep manual safety checks to replace automated software safety checks when prescribing new medications for patients previously cared for at a new EHR site. These manual safety checks are complex, time-consuming, and reliant on the vigilance of pharmacists and frontline staff. The OIG is concerned that this increased vigilance is unsustainable by pharmacists and frontline staff who are responsible for clinical decision-making, and it may lead to burnout and medication-related patient safety events.

The New EHR's Negative Effect on Columbus Pharmacy Staff

The OIG determined that Columbus's chief of pharmacy prepared for challenges during the transition, such as the pharmacy staff's increased workload due to the new EHR's operational inefficiencies. One mitigation was to hire nine full-time clinical pharmacists, which represented a 62 percent staffing increase, in order to reduce the backlog.

A VHA leader stated that challenges with the new EHR's usability also led to the creation of national and facility-level work-arounds and educational materials for pharmacy personnel. In May 2021, the NCPS pharmacy patient safety team created seven work-arounds for pharmacy staff. After going live at the Columbus facility, pharmacy leaders created approximately 29 additional work-arounds to support pharmacy staff and prevent delays. Facility pharmacy leaders also developed approximately 25 educational materials, such as tip sheets, reference guides, and job aids, to further support pharmacy staff. The OIG is concerned that the numerous work-arounds and educational materials are overwhelming for pharmacy staff to implement and may give rise to inconsistent practices, which increase risks to patient safety.

[12] September 29, 2023 was the last date that the OIG received updated information from CERT regarding the status of any patient communication mailings.

In addition, the new EHR's usability issues contributed to staff concerns about making errors that could result in patient harm—concerns linked to pharmacy staff burnout, low morale, and decreased job satisfaction. The OIG found that following implementation of the new EHR, burnout symptoms for pharmacy staff increased and the Best Places to Work score for pharmacy staff decreased from the previous fiscal year.[13] Additionally, Columbus pharmacy employees, including the chief of pharmacy, told the OIG that the new EHR negatively affected pharmacy staff morale. VHA pharmacy and patient safety leaders told the OIG of a need for increased staff vigilance to avoid patient harm.

Although the focus of this hearing is on pharmacy concerns with the new EHR, the OIG has been following up on other critical features of the Oracle Health system that affect veterans' ability to gain prompt access to quality health care. These include challenges with patient appointment scheduling that are the subject of upcoming oversight reports.

PATIENT APPOINTMENT SCHEDULING PROBLEMS HAVE NOT BEEN RESOLVED

In 2021 and 2022, the OIG reported on difficulties that employees experienced when using the patient appointment scheduling package at the Chalmers P. Wylie VA Ambulatory Care Center in Columbus and the Mann-Grandstaff VA Medical Center in Spokane.[14] The OIG found VHA and EHRM-IO did not fully resolve known limitations in the scheduling system, leading to reduced effectiveness and increased risk of patient care delays. The problems identified in 2021 persisted through the OIG's 2022 reports, such as schedulers developing work-arounds for unresolved issues and inaccurate data migrated from legacy systems. EHRM-IO leaders did not provide scheduling staff with adequate chances to identify limitations in the new scheduling system before implementation, nor did leaders assess Oracle Health's compliance with contract terms for handling tickets staff submitted on problems they experienced.

The OIG Determined Unresolved Scheduling Package Problems May Negatively Affect Future Sites

One of the draft OIG work products currently with VA for comment discusses the new EHR's scheduling package that has systemic, facility-level problems that will potentially be exacerbated at larger, more complex VHA medical facilities.

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[13] The OIG compared 2021 and 2022 facility All Employee Survey results. A Columbus leader informed the OIG that VA launched the 2022 AES on June 6, 2022, 37 days after the new EHR's implementation at the facility. Burnout is measured as a percentage score ranging from 0–100; lower percentages are more favorable. "Best Places to Work" is a summary measure of the group's satisfaction with the job, organization, and likelihood to recommend VA as a good place to work. The score ranges from 0–100 points; higher scores are more favorable.

[14] VA OIG, *Care Coordination Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington*; VA OIG, *New Patient Scheduling System Needs Improvement as VA Expands Its Implementation*, November 10, 2021.

The Displaced Appointment Queue Can Result in Appointments Not Being Rescheduled

The OIG determined that schedulers using the new EHR are experiencing difficulties with what is termed "the displaced appointment queue," which at times resulted in appointments not getting rescheduled. That queue is used by scheduling staff to identify appointments needing to be rescheduled if a healthcare provider has a schedule change. The new EHR handles these schedule changes by moving all affected appointments from the provider's schedule to the displaced appointment queue. Staff reported that the EHR does not always route appointments to the queue and that properly routed appointments sometimes disappeared from the queue. As a result, the schedulers could not rely on the queue for identifying appointments that needed to be rescheduled.

EHRM-IO said it was aware of the defects in the operation of the displaced appointment queue and that two system updates scheduled for issuance in February and April 2024 are intended to address the defects. While EHRM-IO stated the medical facilities were provided guidance informing schedulers how to reschedule patients without using the queue, EHRM-IO also stated that "the queues are intended to be a safety net, especially the displaced queue; if [schedulers] are following the right business rules, then nothing would fall to the displaced queue." However, the OIG noted that the defects in the operation of the displaced appointment queue made it an unreliable safety net as appointments may not reach the queue or disappear.

Despite EHRM-IO assertions that the queue should be used as a safety net, the review team found cases in which medical facility staff relied on the displaced queue to schedule appointments. The OIG could not definitively identify how many patients at new EHR sites were impacted. However, the problems could be much more pervasive and severe when the EHR is deployed at larger facilities, where greater numbers of personnel will have more schedule changes that require appointment rescheduling.[15]

Previously Documented Scheduling Inefficiencies and Errors Remain

The concerns identified above are compounded by the schedulers' perceptions that EHR patient information is still unreliable, ongoing difficulties in changing appointment types, and the inability to automatically mail appointment reminder letters.

OIG reports issued in 2021 and 2022 found that data migration errors caused outdated patient demographic information needed for scheduling, such as names and addresses, from the Department of Defense's (DoD) Defense Enrollment Eligibility Reporting System (DEERS) to override the more current and accurate patient data in VHA's legacy system.[16] As reflected in those reports, the OIG

[15] A separate issue impacting schedulers and providers is that they cannot easily share information about appointments, such as notes explaining why an appointment was canceled, which is a change from the legacy EHR system.

[16] VA OIG, *New Patient Scheduling System Needs Improvement as VA Expands Its Implementation*; VA OIG, *Care Coordination Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington*.

considered the problems associated with inaccurate DEERS information to be of significant concern for VA's plan to implement the EHR at other sites. EHRM-IO acknowledged issues with inaccurate patient information from DEERS, but these issues were fixed with a February 2023 software update. This update made VA's Veteran Enrollment System the source for patient data instead of DEERS. However, veterans still must update some information, such as name or gender, directly with DoD. Schedulers also continue to feel the effects of the inaccuracy of DEERS information. Some schedulers have spent additional time verifying information because they appeared unaware of the system update or that the update still required veterans to update some information with DoD.

In addition, the OIG's 2021 scheduling report found that VHA and EHRM-IO had not resolved many of the system and process weaknesses identified by pre-implementation assessments.[17] One system weakness identified was the new EHR's inability to change the appointment type (face-to-face, VA Video Connect, or telehealth) for an existing appointment without cancelling the appointment and reordering a new appointment. This process inevitably led to more burdensome work for schedulers and providers. In 2022, VHA planned on fixing this issue through a system update and was finalizing interim guidance for schedulers' mitigation strategies. However, schedulers from all five new EHR facilities confirmed that they still need to cancel existing appointments and manually create new ones when changing the type of appointment. Using manual processes could have a much more significant impact at larger medical facilities.

Another weakness the OIG previously identified was that the new EHR could not automatically send reminder letters to patients for upcoming appointments.[18] While not required by VA policy, veterans were accustomed to and relied on these letters from the legacy EHR. The letters also reduced "no shows" and missed appointments. The automated mailing of reminder letters is not a function within the new EHR, and during this review, the team determined that this system limitation still exists. In November 2023, EHRM-IO had planned to release an interface that would allow schedulers to automatically print appointment reminders. However, at the end of December 2023, they informed the OIG that this interface would not be ready before the planned March 2024 EHR go-live at the Captain James A. Lovell Federal Health Care Center in North Chicago.

Facilities that continue to mail appointment reminder letters must manually print and mail them to patients, which is a time-consuming process for staff.[19] One facility with the new EHR is estimated to have manually printed and mailed nearly 195,000 reminder letters for its appointments in fiscal year

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[17] VA OIG, *New Patient Scheduling System Needs Improvement as VA Expands Its Implementation*.

[18] VA OIG, *New Patient Scheduling System Needs Improvement as VA Expands Its Implementation*.

[19] The team also found that facilities continuing to routinely send reminder letters (or that did so at the veteran's request) also sometimes encountered problems in preparing the letters using the EHR. The OIG team's review of the "trouble" tickets disclosed that EHR-generated reminder letters sometimes printed the mailing addresses in places that would not be visible through the window of the mailing envelope, included extra information, or contained incorrect mailing addresses.

2023. The other four facilities using the new EHR have undertaken different solutions to address this system limitation. Some now rely instead on other methods, such as autogenerated text messages and emails or phone calls. Consequently, the VA should expedite the release of the interface to all the medical centers that have deployed the EHR. VHA should also consider whether that solution should be implemented uniformly at the facilities.

The OIG team also identified continued issues with schedulers feeling that training provided by Oracle Health was inadequate. Some new EHR sites have developed their own local practices and training to supplement the Oracle Health training, and VHA has provided facilities feedback on the supplemental training. However, some of the facilities' locally developed work-arounds do not adhere to VA's approved scheduling workflow processes, which can contradict VA policy. VHA is working on creating standard procedures for scheduling.

Based on the findings, facilities should assess staffing levels and overtime use prior to EHR deployment.

The New EHR's Scheduling Errors Contributed to a Patient Death

In the third EHR report that is currently with VA for review and comment, the OIG confirmed that a system error in the new EHR resulted in staff's failure to complete the minimally required scheduling efforts following a patient's missed mental health appointment. While a letter was sent and calls made on the day of the missed appointment, staff did not complete the telephone calls on separate days as required. The OIG found that the patient's missed appointment, although updated in the new EHR to no-show status, was not routed to a "request queue." As a result, schedulers were not prompted by the system to conduct the required rescheduling efforts. The OIG concluded that the lack of contact efforts may have contributed to the patient's disengagement from mental health treatment and, ultimately, the patient's substance use relapse and death.

As an additional matter, the OIG found that VHA was requiring mental health staff at new EHR sites to make two fewer attempts to contact no-show patients than at legacy EHR sites. The standard operating procedure for minimum scheduling efforts establishes a different standard of care based on which EHR system is in use at a facility, which could result in a disparity among veterans accessing care. Requirements for scheduling efforts are meant to maximize opportunities to engage patients. Further, the OIG would expect VHA leaders to focus on identifying strategies to address administrative barriers, such as software deficiencies, without compromising established VHA patient care standards.

CONCLUSION

This Subcommittee and VA have focused tremendous resources on the successful transition to the new EHR system. The OIG has published multiple reports identifying numerous patient safety issues related to the new EHR. While VHA paused deployments until the new EHR is "highly functioning at current sites and ready to deliver for Veterans and VA clinicians at future sites," the planned go-live at the Lovell Federal Health Care Center is still scheduled for March 2024, despite myriad unmitigated issues.

The OIG is committed to providing impactful and practical recommendations that flow from its oversight work to help VA deploy the new EHR efficiently and in a manner that improves veterans' experiences. At prior hearings, the OIG has identified deficiencies that affect the EHRM program's progress and its risk to patient safety. The reports in this statement show that many concerns remain unresolved. There are also higher-level questions that remain unanswered. It is unclear whether identified problems are being adequately resolved before additional deployments. There is also the question of whether there is sufficient transparency and communication among EHRM-IO, VHA and facility leaders, VA leaders, and Oracle Health needed for quality control and critical coordination. Trust in VA is also dependent on patients being fully and quickly advised when issues affecting them are identified and addressed. As VA moves toward its deployment next month at a complex facility jointly operated with the Department of Defense, transparency, communication, and program management will be essential to getting it right. Failures in these areas risk cascading problems. The OIG will continue to monitor EHRM efforts to help recommend improvements needed to fulfill its promise to the veteran community and make the most effective use of taxpayer dollars. Chairman Rosendale, this concludes my statement. I would be happy to answer any questions you or other members may have.

APPENDIX – ALL ELECTRONIC HEALTH RECORD MODERNIZATION PRODUCTS AND RECOMMENDATIONS

REVIEW OF ACCESS TO CARE AND CAPABILITIES DURING VA'S TRANSITION TO A NEW EHR SYSTEM AT MANN-GRANDSTAFF VA APRIL 27, 2020, 19-09447-136

1. The under secretary for health (USH), in conjunction with the Office of Electronic Health Record Modernization (OEHRM now EHRM-IO) evaluates the impact of the new EHR implementation on productivity and provides operational guidance and required resources to facilities prior to go-live. Status: Open. VA's targeted completion date: Initial response at Initial Operating Capability go-live; revised versions at subsequent go-live dates.

2. The USH, in conjunction with OEHRM, identifies the impact of the mitigation strategies on user and patient experience at go-live and takes action, as needed. Status: Closed 11/8/2022.

3. The executive director, OEHRM, in conjunction with the USH, ensures that clear guidance is given to facility staff on what EHR capabilities will be available at go-live. Status: Closed 1/13/2021.

4. The USH, in conjunction with OEHRM, reevaluates the EHRM deployment timeline to minimize the number of required mitigation strategies at go-live. Status: Open. VA's targeted completion date: May 2020.

5. The VISN director collaborates with facility leaders to implement VA-provided operational guidance and supports required resources needed throughout the transition to the new EHR system. Status: Closed 7/31/2021.

6. The VISN director ensures that positions required for the transition to the new EHR system are staffed and trained prior to go-live. Status: Closed 10/16/2020.

7. The Mann-Grandstaff VA Medical Center director ensures that community care consults are managed through go-live to ensure accuracy and completeness, and to avoid the need for manual reentry after go-live. Status: Closed 9/22/2021.

8. The Mann-Grandstaff VAMC director ensures that patients receive medication refills in a timely manner throughout the transition to the new EHR system. Status: Closed 9/22/2021.

DEFICIENCIES IN INFRASTRUCTURE READINESS FOR DEPLOYING VA'S NEW EHR SYSTEM APRIL 27, 2020, 19-08980-95

1. The executive director of OEHRM should establish an infrastructure-readiness schedule for future deployment sites that incorporates lessons learned from the DoD. Status: Closed 10/1/2020.

2. The executive director of OEHRM should reassess the enterprise-wide deployment schedule to ensure projected milestones are realistic and achievable, considering the time needed for facilities to complete infrastructure upgrades. Status: Closed 10/1/2020.

3. The executive director of OEHRM should implement tools to comprehensively monitor the status and progress of medical devices at the enterprise level. Status: Closed 9/21/2021.

4. The executive director of OEHRM should standardize infrastructure requirements in conjunction with the VHA and the OIT and ensure those requirements are disseminated to all necessary staff. Status: Closed 7/16/2021.

5. The executive director of OEHRM should evaluate physical infrastructure for consistency with OEHRM requirements and monitor completion of those evaluations. Status: Closed 11/9/2022.

6. The executive director of OEHRM should fill infrastructure-readiness team vacancies until optimal staffing levels are attained. Status: Closed 9/12/2022.

7. The executive director of OEHRM should ensure physical security assessments are completed and addressed at future EHR deployment sites. Status: Closed 11/9/2022.

8. The Mann-Grandstaff VAMC director should ensure all access points to physical infrastructure are secured and inaccessible to unauthorized individuals. Status: Closed 10/1/2020.

DEFICIENCIES IN REPORTING RELIABLE PHYSICAL INFRASTRUCTURE COST ESTIMATES FOR THE EHRM PROGRAM MAY 25, 2021, 20-03178-116

1. The executive director for OEHRM should ensure an independent cost estimate is performed for program life cycle cost estimates including related physical infrastructure costs funded by VHA. Status: Closed 11/9/2022

2. The VA assistant secretary for management and chief financial officer should ensure the Office of Programming, Analysis and Evaluation, or another office performing its duties, conducts independent cost estimates as required by VA financial policy, and performs an independent estimate of EHRM program life cycle cost estimates including physical infrastructure. Status: Closed 11/9/2022

3. The director of special engineering projects for VHA's Office of Healthcare Environment and Facilities Programs should develop a reliable cost estimate for EHRM program-related physical infrastructure in accordance with VA cost-estimating standards and incorporate costs for upgrade needs identified in facility self-assessments and scoping sessions. Status: Closed 7/26/2022.

4. The director of special engineering projects should also continuously update physical infrastructure cost estimates based on emerging requirements and identified project needs. Status: Closed 1/20/2022.

5. The executive director for OEHRM should ensure costs for physical infrastructure upgrades funded by VHA or other sources needed to support the EHRM program are disclosed in program life cycle cost estimates presented to Congress. Status: Open. VA's targeted completion date: July 31, 2021.

UNRELIABLE INFORMATION TECHNOLOGY INFRASTRUCTURE COST ESTIMATES FOR THE EHRM PROGRAM JULY 7, 2021, 20-03185-151

1. The executive director of OEHRM should ensure an independent cost estimate is performed for program life-cycle cost estimates related to IT infrastructure costs. Status: Closed 11/9/2022.

2. The executive director of OEHRM should reassess the cost estimate for EHRM program-related IT infrastructure and refine as needed to comply with VA's cost-estimating standards. Status: Open. VA's targeted completion date: Under active revision as part of the strategic review and will be provided as soon as information is available.

3. The executive director of OEHRM should develop procedures for cost-estimating staff that align with VA cost-estimating guidance. Status: Open. VA's targeted completion date: Under active revision as part of the strategic review and will be provided as soon as information is available.

4. The executive director of OEHRM should ensure costs for all IT infrastructure upgrades funded by OIT and VHA or other sources needed to support the EHRM program are disclosed in program life-cycle cost estimates presented to Congress. Status: Open. VA's targeted completion date: This is part of the strategic review and will be provided as soon as information is available.

5. The executive director of OEHRM should formalize agreements with OIT and VHA identifying the expected contributions from each entity toward IT infrastructure upgrades in support of the EHRM program. Status: Open. VA's targeted completion date: This is part of the strategic review and will be provided as soon as information is available.

6. The executive director of OEHRM should establish procedures that identify when life-cycle cost estimates should be updated and ensure those updated estimates are disclosed in the program's congressionally mandated reports. Status: Open. VA's targeted completion date: This is part of the strategic review and will be provided as soon as information is available.

TRAINING DEFICIENCIES WITH VA'S NEW EHR SYSTEM AT THE MANN-GRANDSTAFF VA JULY 8, 2021, 20-01930-183

1. The USH explores the establishment of a group of VHA staff composed of core user roles with expertise in VHA operations and Cerner EHR use with data architect level knowledge to lead the effort of generating optimized VHA clinical and administrative workflows. Status: Closed 1/23/2023.

2. The deputy secretary establishes an EHR training domain that ensures close proximation to the production environment and is readily available to all end users during and following training. Status: Closed 1/23/2023.

3. The deputy secretary ensures end users receive training time sufficient to impart the skills necessary to use the new EHR prior to implementation. Status: Closed 1/23/2023.

4. The deputy secretary ensures the user role assignment process addresses identified facility leaders and staff concerns. Status: Closed 1/23/2023.

5. The deputy secretary ensures Cerner trainers and adoption coaches have the capability to deliver end user training on Cerner and VHA EHR software workflows. Status: Closed 1/23/2023.

6. The deputy secretary evaluates the process of super user selection and takes action as indicated. Status: Closed 2/1/2022.

7. The deputy secretary reviews OEHRM's performance-based service assessments for Cerner's execution of training to determine whether multiple, recurrent concerns are being accurately captured and addressed. Status: Closed 1/23/2023.

8. The deputy secretary oversees the revision of an OEHRM training evaluation plan and ensures implementation of stated objectives. Status: Closed 1/23/2023.

9. The deputy secretary reviews the EHRM governance structure and takes action as indicated to ensure the under secretary for health (USH) role in directing and prioritizing EHRM efforts is commensurate with VHA's role in providing safe patient care. Status: Closed 2/1/2022.

10. The USH establishes guidelines and training to capture new EHR-related patient complaints, including patient advocacy. Status: Closed 8/5/2022.

11. The USH ensures an assessment of employee morale following implementation of a new EHR and takes action as indicated. Status: Closed 2/1/2022.

NEW PATIENT SCHEDULING SYSTEM NEEDS IMPROVEMENT AS VA EXPANDS ITS IMPLEMENTATION NOVEMBER 10, 2021, 21-00434-233

1. The USH coordinates with the OEHRM executive director (ED) to continue to make improvements to the scheduling training as needed to address feedback from schedulers. Status: Closed 12/21/2022

2. The USH coordinates with the OEHRM ED to require that some schedulers from each clinic fully test the scheduling capabilities of their clinics, solicit feedback from the schedulers to identify system or process issues, and make improvements as needed. Status: Closed 6/22/2023

3. The USH coordinates with the OEHRM ED to issue guidance to facility staff on which date fields in the new system schedulers should use to measure patient wait times. Status: Closed 1/2/2024.

4. The USH coordinates with the OEHRM ED to develop a mechanism to track and then monitor all tickets related to the new scheduling system, and ensure OEHRM evaluates whether Cerner effectively resolved the tickets within the timeliness metrics established in the contract. Status: Closed 10/27/2022.

5. The USH coordinates with the OEHRM ED to develop a strategy to identify and resolve scheduling issues in a timely manner as OEHRM deploys the EHR at future facilities. Status: Closed 10/27/2022.

6. The USH coordinates with the OEHRM ED to develop a mechanism to assess whether facility employees accurately scheduled patient appointments in the new scheduling system, and then ensure facility leaders conduct routine scheduling audits. Status: Closed 7/14/2023.

7. The USH coordinates with the OEHRM ED to evaluate whether patients received care within the time frames directed by VHA policy when scheduled through the new system. Status: Open. VA's targeted completion date: July 2022.

8. The OIG recommends that the VA OEHRM ED provide guidance to schedulers to consistently address system limitations until problems are resolved. Status: Closed 10/27/2022.

MEDICATION MANAGEMENT DEFICIENCIES AFTER EHR GO-LIVE AT THE MANN-GRANDSTAFF VAMC MARCH 17, 2022, 21-00656-110

1. The deputy secretary ensures that substantiated and unresolved allegations discussed in this report are reviewed and addressed. Status: Open. VA's targeted completion date: May 2022.

2. The deputy secretary ensures medication management issues related to the new EHR that are identified subsequent to this inspection be reported to the OIG for further analysis. Status: Closed – Not Implemented 9/28/2022.

CARE COORDINATION DEFICIENCIES AFTER THE NEW EHR GO-LIVE AT THE MANN-GRANDSTAFF VAMC MARCH 17, 2022, 21-00781-109

1. The deputy secretary ensures that substantiated and unresolved allegations noted in this report are reviewed and addressed. Status: Closed 10/3/2023.

TICKET PROCESS CONCERNS AND UNDERLYING FACTORS CONTRIBUTING TO DEFICIENCIES AFTER THE EHR GO-LIVE AT MANN-GRANDSTAFF VAMC MARCH 17, 2022, 21-00781-108

1. The deputy secretary completes an evaluation of the new EHR problem resolution processes and takes action as warranted. Status: Closed 2/7/2022.

2. The deputy secretary completes an evaluation of the underlying factors of substantiated allegations identified in this report and takes action as warranted. Status: Closed 10/19/2022.

3. The deputy secretary ensures the EHRM deployment schedule reflects resolution of the allegations and concerns discussed in this report. Status: Open. VA's targeted completion date: March 2022.

THE EHRM PROGRAM DID NOT FULLY MEET THE STANDARDS FOR A HIGH QUALITY, RELIABLE SCHEDULE APRIL 25, 2022, 21-02889-134

1. The EHRM program management office ED should comply with internal guidance and ensure the development of an integrated master schedule (IMS) that complies with standards adopted from GAO for scheduling, Status: Open. VA's targeted completion date: December 2022.

2. The EHRM program management office ED should take action to improve stakeholder coordination in the development of the program schedules to ensure activities from all relevant VA entities are included. Status: Open. VA's targeted completion date: August 2022.

3. The EHRM program management office ED should develop procedures for when and how staff should perform an initial schedule risk analysis and conduct periodic updates as needed. Status: Open. VA's targeted completion date: December 2022.

4. The EHRM program management office ED should ensure consistency between contract language and program office plans or other guidance identifying the entity or individuals responsible for developing and maintaining the program's work breakdown structure and IMS. Status: Open. VA's targeted completion date: November 2022.

5. The EHRM program management office ED should evaluate the contract requirements for schedule management and modify as needed to ensure clear roles and expectations for further development and maintenance of the IMS. Status: Open. VA's targeted completion date: December 2022.

6. The EHRM program management office ED should comply with the Federal Acquisition Regulation and issue guidance to accept deliverables not separately priced before invoice payment. Status: Closed 3/10/2023.

ACTIONS TAKEN BY VA, DOD, AND THE FEHRM IN RESPONSE TO RECS FROM *JOINT AUDIT OF THE DOD AND THE VA EFFORTS TO ACHIEVE EHR INTEROPERABILITY* MAY 5, 2022, 18-04227-91

1. We recommend that the deputy secretary of defense and deputy secretary of veterans affairs review the actions of the Federal Electronic Health Record Modernization Program Office (FEHRM) and direct the FEHRM to develop processes and procedures in accordance with the FEHRM charter and the National Defense Authorization Acts. Status: Closed 1/3/2023

We recommend that the director of the FEHRM, in coordination with the director of the Defense Health Agency; program executive director for EHRMI; and program manager for DoD Healthcare Management System Modernization:

2. Determine the type of patient health care information that constitutes a complete patient EHR. Status: Open. FEHRM's targeted completion date: August 31, 2022.
3. Develop and implement a plan for migrating legacy patient health care information needed for a patient's complete EHR once the FEHRM determines the health care data domains of patient health care information that constitutes a complete patient EHR. Status: Open. FEHRM's targeted completion date: August 31, 2022.
4. Develop and implement a plan for creating interfaces that would allow medical devices to connect and transfer patient health care information to Cerner Millennium. Status: Open. FEHRM's targeted completion date: One year after resources have been approved and allocated, the FEHRM will develop a plan to create interfaces between medical devices and the federal EHR.

***DEFICITS WITH METRICS FOLLOWING IMPLEMENTATION OF THE NEW EHR AT THE MANN-GRANDSTAFF VAMC* JUNE 1, 2022, 21-03020-168**

1. The deputy secretary completes an evaluation of gaps in new EHR metrics and takes action as warranted. Status: Open. VA's targeted completion date: October 2022.

2. The deputy secretary completes an evaluation of factors affecting the availability of metrics and takes action as warranted. Status: Open. VA's targeted completion date: October 2022.

***SENIOR STAFF GAVE INACCURATE INFORMATION TO OIG REVIEWERS OF EHR TRAINING* JULY 14, 2022, 21-02201-200**

1. Issue a clarifying communication to the office's personnel that all staff have a right to speak directly and openly with OIG staff without fear of retaliation, and that, irrespective of any processes established to facilitate the flow of information, EHRM-IO personnel are encouraged to communicate directly with OIG staff when needed to proactively clarify requests and avoid confusion. Status: Closed 9/7/2022.

2. Provide clear guidance that the office's personnel must provide timely, complete, and accurate responses to requests for all data or information without alteration, unless other formats are requested, with full disclosure of the methodology, any data limitations, or other relevant context. This includes prompt OIG access to entire datasets consistent with the Inspector General Act of 1978, as amended. Status: Closed 9/7/2022.

3. Determine whether any administrative action should be taken with respect to the conduct or performance of the executive director of Change Management. Status: Closed 8/2/2023.

4. Determine whether any administrative action should be taken with respect to the conduct or performance of Change Management's director for training strategy. Status: Closed 8/15/2022.

THE NEW EHR'S UNKNOWN QUEUE CAUSED MULTIPLE EVENTS OF PATIENT HARM
JULY 14, 2022, 22-01137-204

1. The deputy secretary reviews the process that led to Cerner's failure to provide VA substantive information of the unknown queue and takes action as indicated. Status: Closed 2/13/2023.

2. The deputy secretary evaluates the unknown queue technology and mitigation process and takes action as indicated. Status: Closed 2/13/2023.

VA SHOULD ENSURE VETERANS' RECORDS IN THE NEW ELECTRONIC HEALTH SYSTEM ARE REVIEWED BEFORE DECIDING BENEFITS CLAIMS
AUGUST 30, 2023, 22-03806-162

1. The OIG recommended the under secretary for benefits conduct national refresher training on the EHRM National Process Memorandum and assess training effectiveness. Status: Open. VA's targeted completion date: March 2024.

2. The OIG recommended the under secretary for benefits consider updating VA Manual 21-4 to reflect that quality assurance measures include addressing failures to consider all VHA records as directed in the Adjudication Procedures Manual that are subject to an enterprise-wide search in the Compensation and Pension Records Interchange system whether or not directed to those records by the claimant and ensure staff are advised of the changes. Status: Closed 1/2/2024

THE ELECTRONIC HEALTH RECORD MODERNIZATION PROGRAM COULD STRENGTHEN ITS PROCESS FOR REVIEWING TASK ORDER PROGRESS
SEPTEMBER 6, 2023, 21-03290-159

No recommendations were issued in this Management Advisory Memorandum.