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Statement of the Honorable Seema Verma, Executive Vice President and General Manager, Oracle Health and Life Sciences, Oracle Corporation

Before the

U.S. House
Committee on Veterans' Affairs
Subcommittee on Technology Modernization

Hearing on:
"Report Card: Assessing Electronic Health Record Modernization at the Captain James A. Lovell Federal Health Care Center"

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Introduction

Chairman Rosendale, Ranking Member Cherfilus-McCormick, and members of the Subcommittee, thank you for the opportunity to speak with you today about Oracle's work with the Department of Veterans Affairs' (VA) Electronic Health Record Modernization (EHRM) program.

I am Seema Verma, Executive Vice President and General Manager for Oracle Health and Life Sciences. I am a former Administrator of the Centers for Medicare and Medicaid Services and have focused on healthcare throughout my career. At Oracle, I am responsible for the company's healthcare business, including Oracle's work to modernize the Electronic Health Record (EHR) for VA and other federal customers such as the Department of Defense (DoD), Coast Guard, National Oceanic and Atmospheric Administration (NOAA), and the Indian Health Service (IHS).

Oracle has served as a technology partner for the federal government since our founding in 1977. Though we operate globally and in fact maintain the largest global EHR market share, we are an American company. We take our work for the United States government very seriously and feel privileged to contribute to our veterans' health along with supporting defense, intelligence and other critical departments and agencies.

The work of modernizing healthcare technology for VA, DoD and other federal partners is a key mission of the company, and we are devoting substantial engineering, healthcare expertise, and other resources to this specific project that is intended to improve the VA provider experience as well improve the delivery, efficiency and outcomes of the care provided by the VA.

We continue to strongly support the VA EHRM program's mission to ensure that service members have a single, lifelong health record from their first day of service through their lifetime care at VA. The modern EHR we are delivering to VA, DoD, the Coast Guard, NOAA, and IHS eliminates the need for patients to rely on memory or outdated, sometimes missing or incomplete paper records. With an interoperable health record, patients receiving care at a VA clinic one day and a community care site the next will have their full health history accessible to both sets of providers. This seamless access to comprehensive health records significantly improves the quality of care for our veterans.

In the two years since Oracle acquired Cerner and took over its obligations for the EHRM program, we have made significant improvements to the technical performance of the system, worked with VA to standardize and simplify EHR workflows, enhanced training, worked with currently live sites to improve productivity and revenue collections, and sped delivery of critical pharmacy enhancements, among other important updates described later.

Our work has paid dividends, as seen with the successful deployment in March 2024 at the Captain James A. Lovell Federal Health Care Center (FHCC) in North Chicago. There is still work to do of course, and our progress continues at a strong pace. However, we believe the successes we have seen recently with the Lovell FHCC deployment and the changes and updates made through the course of the current "reset" have positioned the program to exit the reset and resume pre-deployment activity this year and go-lives next year.

We made several recommendations to VA through the course of the reset, including for how they can: (1) institute stronger governance controls through clearer escalation paths for program decisions, such as those requiring cross-council consensus; (2) enhance change control processes through closed loop communications with end users and enforcement to standards; (3) standardize workflows and healthcare protocols, such as referral management, workload capture, and mammography; (4) improve system performance and operations; (5) optimize end user engagement and communications; and (6) advance workflow adoption and optimization.

Akin to our recommendations, VA has stood up ten workstreams during the reset period and has most recently onboarded several "big rock" projects, which are specific initiatives aimed at improving the user experience, efficiency, and outcomes. VA's efforts towards standardization, establishing an effective configuration process, and creating playbooks to ensure alignment to model workflows will help VA create one standard of care across its healthcare enterprise and enable VA to provide quicker answers when deviations from the standard EHR are requested. Further, several of VA's "big rock" projects, such as position standardization (i.e., ensuring every healthcare worker with the same job title and responsibilities uses the EHR system in the same way), referral management, and ad hoc folders (i.e., organizing documentation that captures patient information in a standardized way), demonstrate a commitment to achieving standardization across the VA healthcare system.

Lovell FHCC

Four months after the deployment of the new EHR at Lovell FHCC, the system has been well-received by users, enabling them to provide excellent care to veterans, active-duty military, and their dependents. Compared to the original five live sites, improvements in change management, training, and communications have led to notably higher adoption rates at Lovell FHCC during this phase of implementation. Moreover, the new EHR delivered substantial advancements over the legacy system at Lovell FHCC, particularly in areas such as interoperability, productivity, and patient safety.

Adoption - Users are demonstrating faster adoption and lower time spent in the EHR than at previously live sites. For example, providers are averaging less than 28 minutes in the EHR, and nurses just under 9 minutes per patient seen.

Productivity - In the Emergency Department, average weekly patient volumes have increased by 14.5 percent over pre-deployment averages, with total length of stay averages decreasing by 7 minutes. Instead of needing to use 5 or 6 different logins, Emergency Department providers now have everything they need to care for a patient in one system, the new EHR.

Ambulatory patient volumes range from 70 to 90 percent of pre-deployment levels, depending on the Patient Care Location (PCL) and the site is working to increase the volumes by 10 percent each month, which is faster than the other sites. This volume and increase is consistent with other complex facilities four months after a go-live.

As Lovell FHCC strives to ramp up all department volumes to 100 percent by this October, Oracle will continue to provide in-person, on-site support for users and work with Lovell FHCC on specific areas where their workflows will need to be modified to adapt to the new standard provided in the EHR. For example, last week we began rapid process improvement work with the Prosthetics and Sensory Aids Department to help them adapt to a significant change in the number of orders to be considered in their workflow.

We undertook a similar effort in April to assist with lab ordering and specimen collections, which alleviated confusion between the providers, nurses, and lab techs over their roles, streamlined the workflows, and ultimately resulted in a higher percentage of correct inpatient lab orders.

Patient Safety - The new EHR has enhanced patient safety measures compared to the legacy system at Lovell FHCC. Key improvements include the implementation of medication safety protocols and closed-loop medication documentation, which ensure accurate medication administration. The implementation of bedside barcode scanning has enhanced verification processes by allowing clinicians to confirm patient identities and medication accuracy at the point of care, thereby reducing the risk of errors. Furthermore, the full deployment of automated medication dispensing cabinets streamlines medication management, providing secure and efficient access to medications while minimizing the potential for dispensing mistakes. Together, these advancements create a safer environment for patient care and improve overall treatment outcomes.

Pharmacy - The Lovell FHCC pharmacy is dispensing prescriptions with similar volumes and window wait times as prior to the deployment. We recognize that pharmacy staffing has increased post-deployment to maintain that same level of throughput. However, enhanced training also contributed to the throughput levels and successful implementation, specifically, weeklong sessions were conducted in November 2023 with the entire pharmacy operations staff, working through various situations and workflows. In addition, knowledge transfer series led by pharmacists were held. Overall, Lovell FHCC pharmacy staff provided a 9.82 out of 10 rating for the workflow adoption training sessions they received.

As with the other live sites, Lovell FHCC benefits from pharmacy safety features inherent in the Oracle pharmacy module, known as Medication Manager Retail (MMR), that are not present in VistA:

1. In MMR, pharmacists can view VA and community care prescriptions together, in a single provider view.
2. Pharmacists can see relevant clinical information and lab values within the pharmacy application during prescription processing. This capability informs proper prescription dosing without leaving the order to go to another screen, unlike VistA.
3. The new EHR allows for improved communication between VA pharmacists and Consolidated Mail Outpatient Pharmacy (CMOP) pharmacists checking prescriptions. VistA does not have this capability which can lead to prescriptions being sent back to the local VAMC for clarification. This feature has been used nearly 9,800 times in fiscal year 2024, which saves time in the fulfillment of prescriptions because it reduces the chances of the CMOP canceling a prescription back to the local VA facility.
4. The new EHR allows VA pharmacists to communicate electronically with community care providers when requesting prescription renewals. This is another net new capability, and it has been used by VA pharmacists more than 5,400 times in fiscal year 2024. This represents 5,400 phone calls not made to community care providers by VA pharmacists. This enhances continuity of veteran care with prescription medications and encourages prescriptions staying inside of VA even when authored via community care.
5. The new EHR also includes enhanced decision support, including dose range checking alerts and the Opioid Advisor Tool. The Opioid Advisor Tool allows clinicians to simultaneously check data from 47 state Prescription Drug Monitoring Programs (PDMP) and DoD facilities to prevent improper prescribing of controlled substances. Previously clinicians had to leave a patient's record and access PDMP data through each state's website with different passwords for each site. The Opioid Advisor tool has guided more than 3,500 modifications to opioid prescriptions since Oct. 2020. In these instances, the provider made a different and beneficial clinical decision based on the information the system provides. This information includes previous overdose attempts and any history of suicidal ideation. This is a net new capability that supports safer care of veterans.

Training and Change Management - Oracle believes that a significant factor in the success of the Lovell FHCC deployment was the addition of new end user adoption activities (e.g., Departmental Workflow Readiness sessions and Learning Labs). These activities reinforced formal training and provided participants with an opportunity to practice their workflows through simulated scenarios in the VA Sandbox.

Learning Labs were created to bring together end users, with support from super users (who are highly experienced users), provider champions and informaticists to develop a comprehensive understanding of selected respective service line workflows as a cohesive care

team. They were first piloted at Lovell FHCC in December 2023 for a small group of 54 super users. Post event survey data showed that more than ninety percent (92.1%) of respondents reported at least moderate improvement in their preparation for go-live, with nearly two thirds (65.8%) reporting great or exceptional improvement.

Based on the overwhelmingly positive feedback, the site and VA asked to partner with Oracle to expand the use of Learning Labs for end users prior to go-live. In close partnership with VA, we quickly stood up an additional 55 sessions for more than 200 end users. Because of the feedback from end users at Lovell FHCC, Learning Labs will be a key activity to help future sites prepare to adopt the new system.

In addition to the new end user adoption activities for Lovell FHCC, Oracle also made 36 early-access computer-based training programs available to super users to support their work and provided supplementary surge training to dual hat users, pharmacists, and pharmacy technicians just before go-live. Additionally, more than 70 supplemental training materials were provided to end users prior to go-live to reinforce important training topics.

Lovell FHCC is the first deployment that has taken place since Oracle's acquisition of Cerner. We strongly believe that the cumulative effect of the various improvements to technical performance, workflows, training, and support, and more undertaken the last two years have enabled this deployment to be successful and provide encouragement that VA can similarly and successfully deploy the new EHR to additional facilities with confidence.

Revenue Collections at Lovell FHCC and Other Live Sites:
Across all live sites revenue collections activity has been mixed and uniquely challenged in Fiscal Year 2024 due to the Change Healthcare cyber-attack. At the start of Calendar Year 2024, the five live sites had seen improved performance with collections to target reaching 100 percent of target from January to March 2024.

Occurring on February 20, 2024, the Change Healthcare cyber-attack stopped all billing processes involving third party claims for VA and all commercial clients. This meant that not only were collections stopped for all other health insurance (OHI) claims but also that the Medicare pass through process could not be facilitated. Until VA determines an appropriate path forward to establish a reconnection with Optum/Change Healthcare, or another intermediary, account balances will continue to be held from processing, and revenue collections will be limited. Once the connection with Optum is re-established by VA, Oracle stands ready to support all necessary activity to begin safely and efficiently processing claims.

Specific to Lovell FHCC, a financial scorecard is difficult to provide given the Change Healthcare cyber-attack. All claims processing at the site was down prior to the go-live and has continued to be so to present. As processing capabilities are re-established, Oracle is confident financial performance will improve and demonstrate desired outcomes to target.

Existing Five Sites

Improved Technical Performance

Major incidents that impact the availability of the EHR, such as outages, are tracked under our contract by an Outage Free Time (OFT) requirement. Since August of 2022, just 2 months after the acquisition of Cerner, Oracle has met or exceeded 99.95 percent system availability every month except for April 2023, and March and April 2024. The 99.95 percent OFT threshold was set as the contractual Service Level Agreement (SLA) in June 2023 as part of the first contract extension. In March and April 2024, OFT was at 99.881 percent and 99.931 percent, respectively, because of two database bugs, one that has been completely resolved and the other mitigated with a final resolution coming in September.

Instances of degradations in service for the EHR, but not a full outage, are tracked in Incident Free Time (IFT). IFT continues to trend in the right direction as well. Since July 2023, Oracle-owned IFT has met or exceeded the contractual requirement of 95 percent for eight of the past twelve months, including the last four consecutive months.

A user interruption is most frequently experienced when the EHR freezes, crashes, or hangs for a period of more than five seconds. Our contract requires that P50 user interruptions must average five or fewer daily (meaning 50 out of 100 users experience five or fewer daily interruptions). P90 user interruptions (90 out of 100 users) must average ten or fewer, and P99 user interruptions (99 out of 100 users) must average fifty or fewer.

Since January 2023, we have met the P50, P90 and P99 requirements every month, and the current average for P99 user interruptions is 24.94 versus the SLA requirement of no more than 50. This means that 0.45 percent of end users experience an interruption that lasts longer than five seconds. We continue to strive to reduce user interruptions with thirty-five updates going into the Code Block 11 update that will occur in August.

Each project within these themes contributes to a more stable system and enhances performance. For instance, we have improved our testing processes and test plan reviews, allowing more stakeholders to review testing plans and provide feedback. This review process ensures that the correct levels of testing, including regression testing, are performed for each change. Another project we completed was automating certificate rotation on non-Windows technologies. By automating this process, we reduce human error and the volume of incidents related to certificate expiration.

VA EHRM Reset

We are now just over one year into the reset and significant progress has been made. A notable focus of the reset is improving usability of the system, and as part of reset initiatives

Oracle has made approximately 1,500 configuration changes and 88 workflow updates to incorporate the voice of the frontline and simplify end user experience. More importantly, we are confident that the commitment to standardization and the newly developed Effective Configuration Process, introduced in the latest reset increment, will significantly enhance the consistency in care delivery across VA venues of care.

Reset Results Dashboard - An EHRM Focus Metrics Dashboard (Reset Results Dashboard) has been developed, in collaboration with VA, with nine focus metrics to inform the exit from reset. All nine metrics have been trending towards improvements except percent of total collections to expected results. We anticipate the percent of total collections to expected results to trend upward upon resolution of the Change Healthcare connection and the release of the Lifetime Pharmacy Encounter (LPE) statements that have been previously withheld by VA.

While the dashboard has been established, we continue to work with VA to firmly define the criteria for exit and to begin planning for future deployments.

Reset "Big Rocks" - While efforts to stabilize the system and improve functionality were underway during the reset, both Oracle and VA leadership visited the five sites to understand specific suggestions from end users to enhance the system. Many of the issues identified can be addressed with additional training.

In June 2024 Oracle collaborated with VA during five planning sessions to define thirteen so-called "Big Rock" projects that are not tied to the reset but that will help improve the user experience. These projects were selected by VA and range from the Pharmacy 3b/3c work to improving PowerForms and Quick Orders to standardization work and creating a new deployment schedule. Many of these projects will address some of VA's unique needs.

More than half of these projects are well in progress. For the others, Oracle's expectation is to hold follow-up workshops with our product engineering teams on these items to drive further definition and validation for a going-forward work plan.

We are enthused that the Big Rocks work plan will address issues of high user concern and make a significant difference in operations for the currently live sites as well as improve adoption at future sites.

Training, Adoption and Support Services

In the last two years, Oracle has worked with VA to improve the training program for new users as well as provide continued training for existing users on the overall system and updates to it. With better trained users, tickets and the need for support services generally decrease.

We have seen that at Lovell FHCC, new training programs such as the use of Learning Labs and increased utilization of super users paid off. Our focus on end users continues not just at Lovell FHCC, but at all the live sites. In the last six months we have held over 2,400 training classes for end users at the live sites.

At the live sites, we have conducted various onsite education and optimization activities to help end users adopt existing workflows and identify and execute configuration and workflow improvement opportunities. In addition to observing how end users interact with the new EHR and resolving their high-priority issues, we proactively identify end users with poor performance experiences and collaborate with VA to resolve these issues, including issues that are the responsibility of VA. Specifically, we have conducted training for Oncology and Long-Acting Injections at VISN 20 sites to improve end user workflow adoption and experience.

At White City and Mann-Grandstaff, we worked with VA to identify and implement optimization opportunities and educate users on workflows for Optometry. At Jonathan M. Wainwright and Columbus, we executed similar projects for Audiology.

Oracle also utilizes workflow data to identify end users needing additional training. Once identified, we send our staff onsite to partner with the end users, assisting them in streamlining their workflows, thereby reducing time spent in veteran charts and increasing the time available to spend with veterans.

The enhanced training has had an impact on the number of tickets, and since VA entered reset, Oracle has exceeded the contractual SLA turnaround times for tickets with faster response times. In addition, Oracle has closed 24,000 tickets during this period and has decreased the active backlog by 17 percent in the last six months. We consistently close greater than 60 percent of our tickets on the first call and greater than 70 percent of our tickets in 24 hours.

For provisioning tickets to give end users access to the system or to specific roles, we have worked with VA to improve processes. We have seen an 18 percent increase in achieving the VA set target date for these requests, and last month we successfully met the VA's target dates on 98 percent of the provisioning tickets logged. Performance improvements have been achieved with the transition to the Microsoft Edge platform, resulting in a 51 percent reduction in full-page load time for Community Care Coordination workflows.

Pharmacy and 3b/3c Update:
Pharmacy 3b/3c is an update that will enable VA pharmacists to modify a prescription and have those edits return to the provider-facing application in the EHR. Those edits will then flow through subsequent renewals of the particular prescription. This requirement is unique to VA.

In February an update for 3b/3c was delivered to VA but the functionality was not turned-on because of VA's desire to modify the base design. In May, a two-day meeting was held with VA in which its final requirements were decided and agreed upon. Code development continues to be underway, with the expectation the 3b/3c update will deploy with the February 2025 code block update.

Overall, pharmacy operations continue to improve. 5.3 million prescriptions have been filled using the new EHR at the first five live sites from the VA CMOP since October 2020. This is in line with prescription fill volumes under VistA.

Upcoming Code Block 11:

Two times each year Oracle and VA provide major updates to the system to improve performance, add enhancements or customizations and make necessary software updates. Other times throughout the year updates are done in smaller batches termed "Cube Updates" or on a monthly basis. These updates are planned far in advance so that testing and validation can take place prior to installation.

In August 2024, the Code Block 11 update will be implemented to the EHR system. This update will include three modifications to the pharmacy module that will allow pharmacists to move faster in the application and one pharmacy supply chain enhancement to support more accurate accounting of medication lot numbers, thereby ensuring precise tracking of medication batches and reducing the risk of administering expired or recalled medications.

Block 11 will also include non-pharmacy related updates, including but not limited to:

- A pilot for an iOS app to be leveraged by Home Based Primary Care (HBPC) clinicians; and
- Enhancements to five existing interfaces in the new EHR to support workflows in Capacity Management, Dentistry, Prosthetic and Sensory Aids Service (PSAS), Telehealth, and Identity and Access Management.

In addition, we anticipate Block 11 to deliver even better performance and reliability improvements resulting in increased efficiency and improved user experience.

Cybersecurity/Cloud:

Cybersecurity is a top focus for Oracle. The security of our systems and our customers' data is a core competency of Oracle, which we have architected into our systems from the ground up. Oracle has decades of experience securing mission critical systems around the world.

Discussions to move the entire federal enclave to Oracle Cloud Infrastructure (OCI) continue with VA, DoD, and other federal parties. Oracle has committed to making this move to OCI at our expense.

Hosting the EHR on OCI will enable greater stability and reliability as the number of EHR users grows, and strong cybersecurity protections. Within the U.S. government federal space, Oracle holds a number of DOD security accreditations and FedRAMP authorizations, and we are an approved vendor under the Intelligence Community's Commercial Cloud Enterprise (C2E) program and the DoD's Joint Warfighting Cloud Capability (JWCC) program.

OCI was built with its foundation in scalability and security, which is fully integrated with features such as bastions for zero trust access, security zones for compartmentalized workloads and integration of security across the Infrastructure, Database and Application Layers.

Moving to OCI will provide even better protection against future threats, and we hope to eventually receive authorization from VA and DoD to make this happen.

Innovation:

The VA signed its agreement with Cerner in 2017. Since then, the technology has significantly evolved, and since Oracle's acquisition of Cerner, we have made strategic investments to advance the EHR – enhancing the user experience, efficiency, quality, and outcomes.

Most recently, Oracle released the Clinical Digital Assistant or CDA, which is a voice-first mobile assistant that can help lower documentation time on a computer and enable providers to spend more time with patients. CDA uses speech, language, and generative AI capabilities to enhance clinical end user workflows, and it is directly integrated into the EHR. Based on the encounter, it will produce a draft note and orders for further patient treatment, for the provider to edit and sign.

In the commercial setting, CDA has been met with wide approval and excitement because it is saving providers time and enabling them to have better engagements with their patients. This is an early example of the power of secure AI to support healthcare providers, and early adopters report "game-changing" results, saving 20-40 percent in documentation time. Working with VA for appropriate permissions, this is the future EHR that Oracle intends to bring to the EHRM program. We believe it will address many provider concerns – supporting experiences personalized to the physician's work and their individual style, reducing documentation burden, and enabling them to regain time for their patients and themselves.

Oracle also has provided VA with an update on all of our upcoming innovations to be considered for integration, including the Oracle Health Patient Administration Systems (PAS) that provides significant improvements in usability and interoperability for front-desk and patient self-service workflows; enhancements to documentation, condition management, medication ordering and referral management aimed at improving care teams efficiency and end user experience; and an expanded set of Fast Healthcare Interoperability Resources (FHIR)-based application programming interfaces to advance interoperability.

Next Steps

The eventual exit of the reset and beginning of pre-deployment work will not mean that further work to improve the EHR will end. That work will continue in parallel and given that it takes over a year from beginning pre-deployment work to the actual go-live, the next deployment will undoubtedly benefit from even more improvements that will take place.

Closing

Oracle is proud to continue working with VA to modernize its EHR system, and we are confident that the EHRM program is ready to restart deployment work soon and on a much more solid footing than ever before. We are steadfast in our mission to serve our nation's veterans through this project. Thank you and I look forward to answering your questions.