STATEMENT OF TERRY ADIRIM, M.D., PROGRAM EXECUTIVE DIRECTOR
ELECTRONIC HEALTH RECORD MODERNIZATION INTEGRATION OFFICE
DEPARTMENT OF VETERANS AFFAIRS
BEFORE THE
COMMITTEE ON VETERANS' AFFAIRS
UNITED STATES SENATE
ON
"EXAMINING THE STATUS OF VA's
ELECTRONIC HEALTH RECORD MODERNIZATION PROGRAM"

July 20, 2022

Chairman Tester, Ranking Member Moran and other Members of the Committee, thank you for the opportunity to testify today in support of the Department of Veterans Affairs (VA) initiative to modernize its electronic health record (EHR) system. I am accompanied by: Kurt DelBene, Assistant Secretary for the Office of Information and Technology (OIT) and Chief Information Officer (CIO); Gerard Cox, M.D., Assistant Under Secretary for Health Quality & Patient Safety, Veterans Health Administration (VHA); and Michael Parrish, Principal Executive Director for the Office of Acquisition, Logistics and Construction (OALC).

I look forward to continuing to engage with you and your staff to ensure that we are successful and assure you that I am committed to full transparency regarding our deployment efforts. Thank you for your support of this important program.

To that end, I wanted to share with the Committee the EHRM program's progress to date and how it's positioned us for even greater, sustained success. This includes an update on the locations where we've gone live, how we've applied lessons learned to strengthen our deployment approach, and other enterprise-wide efforts to continue to encourage end-user adoption.

As we'll discuss, we've learned a great deal since our first deployment nearly two years ago – and it's allowed for a very busy and productive first half of 2022.

First and foremost, Veterans deserve high-quality health care – that means care that is timely, safe, Veteran-centric, equitable, evidence-based and efficient. VA medical personnel must have the modern tools necessary to deliver that care. As Secretary McDonough has said, VA's EHRM effort is a leap forward that we can do and must get right, and we are.

Make no mistake, this enterprise-wide effort is one of the most complex clinical and business transformation endeavors in the Department's history. But the complexity and challenges associated with this effort should not deter us from modernizing our technology. This is an opportunity for VA to fundamentally transform health care for Veterans through standardization of its operations to deliver consistent, high-quality care wherever Veterans seek it.

The goal of this program is clear: create a single, seamless, integrated health record containing medical information from military service to Veteran status. This will ensure that those who care for our Nation's Veterans have access to a complete health record to provide safe and timely health care across a Veteran's lifecycle.

I am honored to be leading this important effort on behalf of VA and Veterans, and it is my top priority to deploy a system that will enable the delivery of modern, high-quality, care – and to do this in a safe and Veteran-centric manner. Given my background and experience in leadership roles within clinical medicine, academia and Federal Government service, I believe I have unique insight into both the importance of our mission and the details required for successful deployment.

By training, I am a physician specializing in pediatric emergency medicine. I come to VA after serving in leadership roles within the Department of Defense's (DoD) Military Health System, most recently as Acting Assistant Secretary of Defense for Health Affairs.

Throughout my 30-year career, in and out of Government, I continued to practice medicine. I have been through EHR deployments and have used the Cerner EHR system in clinical practice. I am highly familiar with the challenges of learning how to use a new EHR system. I can tell you from experience that there is always a learning curve, easier for some than others, and unforeseen difficulties – regardless of the sector or industry leading the effort. This is not unique to VA.

Implementing a new EHR system in any organization is difficult but implementing one in a health care system as large and complex as VA's is unprecedented. We are transitioning from the current, nearly 40-year-old EHR system, Veterans Health Information Systems and Technology Architecture (VistA), comprised of 130 customized versions, to a single, state-of-the art product with enterprise-wide standardized workflows and configurations. This is momentous change for VA's medical personnel.

The Imperative for Change

The legacy system served us well. However, it does not have the capabilities that a modern EHR offers and is simply incapable of sustaining the current and future demands of rapid innovations in health care. For VA, the EHR modernization effort has become an important imperative for change.

VA's new EHR is critical for not only creating a seamless experience for Veterans moving from DoD to VA care, but also for those seeking to move their care within the VA health system itself. Additionally, VA views this as an opportunity to use the new EHR as the tool to allow the VA health system to function as an enterprise. An enterprise approach will support standardizing care across the system and is a key contributor to improvements in health care quality, patient safety, and realizing greater efficiencies.

Automated integrated functions in the new EHR have already proven to help providers get their work done faster, as experienced in our laboratories where they are able to process more specimens than with the legacy system, and in less time. It has also improved the user experience by moving key functions from multiple applications to one. This automation and integration of capabilities represents a significant change from how VA is managing our health records in the legacy system.

Any implementation of this scale and complexity comes with inherent challenges. While we are working diligently to address them, we also know change like this can be exacting and, as such, have always viewed this process iteratively. We are currently in the early stages of implementation or the initial operating capability phase (IOC), where we are learning what is working and what is not – and applying these lessons learned, moving forward.

As a practicing physician, I have seen this before. Our commercial-sector peers struggle with similar challenges when transitioning to a new EHR. VA's struggles are amplified, because VA is the largest, most complex health system in the United States, with personnel having never experienced a change in EHR before.

VA's Unique Implementation Challenges

VA purchased a commercial off-the-shelf product that does not yet have some of the functions tailored to the unique requirements of VA care. Many of these are administrative functions based on how Veterans qualify for care, but there are also unique ways VA provides some of its clinical care.

For example, unlike the private sector, VA pharmacists make changes directly in patients' health records to communicate requests for medication changes using standardized messages through the e-prescribing network. Prescription changes may be necessary if a certain strength of a drug is not in stock, for example. This has been identified as a priority by VA, and we have contracted with Oracle Cerner to integrate the pharmacy software within the patient record of the new EHR. This will take some time to complete, and until then we have instituted measures to avoid the need for pharmacists to have to make changes in the first place. This includes evaluating the feasibility of using site-specific formularies where physicians select medications and use some of the private sector electronic messaging tools.

VA is continuously collaborating with Oracle Cerner to configure the EHR system to meet our requirements. We implemented rigorous processes to monitor and manage our contractual relationship, to ensure all requirements are delivered. We also instituted a series of metrics to assess user adoption and determine patient engagement, productivity and safety to continually identify areas for improvement.

Despite challenges, it is important to note that the same EHR system that VA is deploying has already been successfully implemented at DoD sites across the United States, including by the U.S. Coast Guard and the U.S. Military Entrance Processing Command, as well as in the commercial sector. Currently, more than 50% of DoD's EHR rollout is complete, with over 100,000 active users.

We acknowledge that our first deployment in Spokane, Washington, almost two years ago, was not as successful as subsequent deployments. Based on our experience there, VA temporarily paused subsequent deployments to conduct a thorough strategic review and install a new leadership team. Lessons learned from the first deployment helped to shape a new, better-informed approach – which has led to four safe and successful deployments in Walla Walla, Washington; Columbus, Ohio; Roseburg, Oregon; and White City, Oregon.

Alongside our own deployment experiences, we are evaluating lessons learned from the DoD rollout, as well as commercial experiences, that are helping us with our own deployments as we move from our initial operating capability to taking our deployments to scale across the entire VA enterprise.

Learning and Improving with Each New Deployment

VA is committed to resolving the challenges identified in the strategic review. We have already made significant progress in many areas. For example, we hired leaders and staff with the right skills and experience for successfully completing large complex projects; established site deployment readiness criteria; optimized dashboards to monitor and measure our performance; established VA governance bodies for more collaborative cross-Department decision-making; and improved communication with our stakeholders. Additionally, we are focused on ensuring technology stability and system enhancements, as well as on rigorous processes to manage budget and expenditures aligned to valid requirements and performance, among many other program improvements.

The steps we have taken have properly position the EHRM program for success. Across every measure of progress, our top priority is, and always has been, patient safety. In fact, due to the patient safety concerns at our first deployment site, VA has incorporated patient safety activities in all aspects of the deployment effort: pre-deployment, at go-live, and post-deployment.

Pre-deployment actions to ensure safe deployment include: validating the nationally approved workflows; thorough testing of the system; and the use of a site deployment readiness checklist, established in January 2022, which includes all tasks required for a safe and successful deployment. Similar checklists are used in other high-risk health care environments, such as operating rooms and intensive care units. Additionally, VA conducts a patient safety incident management table-top exercise and a patient safety summit at the local deployment site, to ensure a thorough and accurate assessment of readiness.

At go-live, VA instituted a comprehensive package of activities to prevent patient safety events and patient harm, including the deployment of staff from VA's National Center for Patient Safety to work with the local patient safety staff to triage Joint Patient Safety Reports (JPSR) for investigation. The most impactful prevention activity is the robust support given to the end users, pre-deployment and at go-live. These include significantly improved training and change management activities to ensure end users are confident in using the new technology; ample on-the-ground support with Cerner adoption coaches, peer super-users, VA solution experts and other clinical experts; and support for clinical operations from the Veterans Integrated Service Network (VISN) (Clinical Resource Hubs) and VHA (National EHRM Supplemental Staffing Unit [NESSU]), that support the local site in providing seamless service to Veterans during the immediate weeks after go-live.

The result of these new activities has been a significant decline in the number of patient safety reports and reports of alleged harm between what was experienced at the first site almost two years ago and the four subsequent implementation sites.

With deployment readiness and patient safety as its number one focus, the new EHR Modernization Integration Office's immediate priorities include strengthening the program, ensuring and sustaining the success of the initial deployment sites, and ensuring successful deployments at future sites.

- Strengthening the program: Our new organizational structure realigns functional, technical, and program management under one executive director, within the Office of the Deputy Secretary, to ensure all aspects of the program are integrated and working together closely. A new Department governance council, the EHRM Integration Council, provides a forum for cross-Department decision-making to ensure expertise is integrated from all VA stakeholders. This council has improved communications, collaboration and transparency across VA and enhanced effective governance of the program.

- Ensuring success of the first five deployment sites: The EHR system is currently deployed at: the Mann-Grandstaff VA Medical Center (VAMC) in Spokane, Washington; the Jonathan M. Wainwright Memorial VAMC in Walla Walla, Washington; the VA Central Ohio Health Care System in Columbus, Ohio; the Roseburg VA Health Care System in Roseburg, Oregon; and VA Southern Oregon Rehabilitation Center and Clinics in White City, Oregon. These sites are designated as IOC sites, which means they are helping us to identify areas for changes and further hone our processes, all of which will be incorporated as lessons learned when the system is deployed at future sites. We continue to support these sites post deployment, including Mann-Grandstaff where we are providing ongoing support to staff in their journey to effectively adopt the system.

- Preparing for future deployments: Following the Mann-Grandstaff VAMC deployment and the strategic review, VA revised its EHR deployment schedule

through the first quarter of fiscal year (FY) 2024 (published in December 2021) which, VA has always communicated, is subject to change based on unforeseen events, such as another wave of COVID-19 or other factors that may prevent a safe and successful deployment. This may include a determination that a site may not be ready for deployment due to implementation tasks not being completed on time or an assessment by EHRM IO and VHA leaders that an adjustment in timeline for a clinical site is needed. In preparation for deployments, EHRM IO developed detailed integrated readiness for go-live criteria to assess risk at future sites. In addition, we implemented a continuous feedback loop with these deployed sites to capture improvement opportunities and drive future changes for non-deployed sites. Pre-deployment activities are underway in VISN 10 and VISN 20, as well as preparations for site deployments scheduled later in FY 2023 and in early FY 2024, in VISN 12 and VISN 23.

Consistent with our readiness assessment approach, deployment to the Boise VAMC was moved from the original date of June 25, 2022, to July 23, 2022, to allow additional time for completion of staff training, completion of scheduling grids, and provisioning of staff. This decision was made, together with the site leadership, using the site readiness for deployment criteria. Based on concerns about the system's stability for deployment to larger sites and to give Oracle Cerner time to stabilize the system, we also shifted the deployment to Puget Sound VA Health Care System, which includes the American Lake and Seattle VAMCs, from the original date of August 2022 to March 2023, and the VA Portland Health Care System, which includes the Portland and Portland-Vancouver VAMCs, from November 2022 to April 2023.

Update on Mann-Grandstaff

As the first VAMC to go-live in October 2020, Mann-Grandstaff VAMC leadership and staff, supported by VISN and VHA leadership, worked tirelessly to ensure Veterans have continuity of quality and timely care during the transition to the new EHR system. While the VA team continues to move forward with other deployments, we are still very much focused on supporting Mann-Grandstaff VAMC, and we will continue to closely monitor for user experience and adoption. Objective data show that staff are successfully adopting the system and clinical operations are close to, or at, their performance level, prior to deployment. Lessons learned at Mann-Grandstaff were applied to deployment sites in 2022, and initial data suggests they will quickly return to pre-deployment levels. Additionally, as we release additional capabilities to enhance VA's EHR system, we expect that the user experience at Mann-Grandstaff VAMC will continue to improve.

2022 Update: Four Successful Deployments

Starting in early 2022, continuing to build on lessons learned, the EHR system was safely and successfully deployed at 4 additional sites: the Jonathan M. Wainwright Memorial VAMC in Walla Walla, Washington, on March 26; the VA Central Ohio Health Care System in Columbus, Ohio on April 30; and at the Roseburg VA Health Care

System in Roseburg, Oregon and the VA Southern Oregon Rehabilitation Center and Clinics in White City, Oregon, both on June 11.

To date, VA has completed five deployments of the new EHR, encompassing five VAMCs, 22 community-based outpatient clinics, and 52 remote sites, with more than 10,000 end users serving over 207,000 Veterans. Reaction has been highly positive across the enterprise to the 2022 results, and momentum continues to build.

Following go-live at the Jonathan M. Wainwright Memorial VAMC in Walla Walla, Washington, the system is working well and by objective operational measures, staff are successfully adopting the system. In fact, early after go-live, staff experienced notable decreases in the amount of time needed to document a patient visit, and because of their success using the system, leadership planned for additional scheduled appointments earlier than had been planned. For example, chief technologists' time spent with patients increased and their documentation preparation time decreased, creating increased efficiency and radiology turnaround times. The new EHR system has also freed lab staff from roughly three hours-a-day worth of work manually processing thousands of specimens. Feedback from site leadership is that morale among staff is high.

Lessons learned from the first two IOC sites were used to enhance every aspect of the next deployment at the VA Central Ohio Health Care System in Columbus, Ohio, including noted improvements to enrich staff training. Leaders and staff at the facility expressed satisfaction with the rollout, noting a seamless transition regarding pre-deployment patient volume. In fact, during the first two weeks of go-live, patient volume in the Urgent Care Center was above average and providers significantly reduced the time they are in the EHR system to document visits, which is a critical measure of successful adoption. Additionally, scheduled patient appointments doubled after just the first week, more surgeries were being performed than pre-deployment and there have been significant improvements in laboratory turn-around times, compared to the legacy system.

On June 11, the EHR system was successfully deployed at both the Roseburg VA Health Care System in Roseburg, Oregon and the VA Southern Oregon Rehabilitation Center and Clinics in White City, Oregon representing the first time VA launched the new EHR at 2 facilities simultaneously. All indications are the go-live was successful. VAMC leadership report consistently that morale is good; deployment has been a positive experience; and they were impressed with the at-the-elbow support. In the first two weeks of go-live, more than 700 appointments a day, on average, were scheduled at both sites combined, with approximately 1,000 end users actively using the system. The White City radiology team were pleased with the real-time visibility of the tracking board, which displays a modified online worklist view showing the queue of work in the Department. Importantly, more than 100,000 Veterans in the region will benefit from the added capabilities of the new EHR system.

Regarding the upcoming Boise deployment, EHRM IO, VHA and VAMC leadership have been meeting regularly, to resolve any outstanding issues and to raise awareness of what to expect at the go-live among the VAMC stakeholders. Town halls were held with staff, local Veterans Service Organizations, and Veterans served by these facilities. Additionally, email notifications were sent, and information was posted to VA's social media platforms and on the facility's website. We continue to hear from VAMC leadership that they are looking forward to going live this weekend, and indicated the staff is ready and shared their excitement.

Future Site Readiness

As mentioned, all new deployments of EHR systems, across sector and industry, have challenges, and we fully intend to learn from ours and, importantly, apply these lessons to future deployments. To that end, data capture and assessment are essential steps. In fact, VA has process measures, based on VHA data sources, that broadly identify site readiness and will use analysis of these measures to drive insights into future site readiness.

To ensure readiness for transition to the new EHR system and to support training for the new way of delivering care, VA conducts Current State Reviews or CSRs at each facility. The CSRs include the following: a comprehensive review of each facility's current clinical processes for patient care; an analysis of each facility's patient documentation requirements; and a review of existing technical infrastructure, including network closets, server rooms, end-user devices, medical devices, printers and scanners. This information enables VA to prepare the facility and its staff for EHR implementation and determine the necessary workflow updates, training and technical upgrades needed to support the EHR deployment.

Change Management

With the goal of encouraging adoption of the new system, we are using a number of change management strategies to ensure that leadership and staff understand that EHR implementation represents an entirely different and innovative way of delivering health care. This includes ongoing, close engagement with local site leadership and staff, VISN leadership and VHA leadership, which allows us to actively monitor system-use trends, to gain insight into how preparation for adoption is progressing and to identify areas where there may be concerns.

In order to continue this type of engagement, at scale, we recently started a series of VISN Medical Center Directors' Conferences to bring together site leadership within a VISN to communicate how to prepare for implementation, answer questions and give leadership at already deployed sites a platform to share their lessons learned and tips with their peers. Our first conference was held for VISN 10 in May 2022, and we received extremely positive feedback from attendees.

To support sites and ensure seamless care for Veterans, during the early days of go-live as staff are still learning the system, VHA also created the National EHRM Supplemental Staffing Unit (NESSU) to provide in-person and virtual clinical staff, trained on the new EHR system, to further supplement the areas of primary care, mental health, outpatient pharmacy, scheduling and nursing care during and after go-live. In addition, the VISN Clinical Resource Hub (CRH) provides trained staff for Veteran populations facing geographic or social barriers to care and have been deployed to sites at go-live to also support care, as staff are learning the new system.

In response to feedback from the Spokane, Walla Walla, and Columbus sites, VA evolved and enhanced its training content to ensure better competency in using the new system. This involved improvements to both quality and quantity of training, including course redesigns to incorporate additional workflows and better address the needs of learners. Another important improvement is identifying super users earlier in the deployment process and engaging them as part of the change management network to support their peers.

Communications with Veterans, facility leadership and staff, and the public are critical to successful EHR deployment. Of primary concern is managing expectations for post implementation, specifically, ensuring that health care personnel understand that the delivery of care will be different from prior practices and that the EHR system will require further refinements, such as enhancements to integration between the core EHR system and unique VA systems for prosthetics, community care referrals and pharmacy.

Budget Overview

As planned, the budget request for FY 2023 reflects the necessary funding to prepare for and meet the deployment requirements at sites that will go live in FY 2024 and early FY 2025. Thanks to the support of Congress, funding already provided in FY 2021 and 2022 supports the majority of information technology infrastructure requirements essential to support the new EHR system.

Conclusion

Modernizing VA’s electronic health record is much more than just a routine software implementation. It is a fundamental change in how business and work processes are performed within VA; therefore, it presents us with the opportunity to completely transform the way we deliver health care and standardize that delivery across the enterprise. Because it is so transformative, in terms of how Veteran care is provided, the success of the project depends not just on the software, but on how well we train and support the people who use it. Be assured that the resources you have invested in VA’s new EHR system, when fully implemented, will support VA in delivering world-class health care and improving access, outcomes, and the experience for Veterans.

Finally, I want to acknowledge what may be top-of-mind for many of our stakeholders, including some Members of the Committee. We understand the uncertainty this type of innovation can bring as meaningful, industry-shifting change often does. In a rollout of this scale and complexity, challenges come with the territory, they are inevitable, and we are prepared for them. In fact, in the years ahead, a successful EHR deployment must reflect them, with each challenge helping to better inform and position the next.

Mr. Chairman, Ranking Member, and Members of the Committee, thank you for the opportunity to testify today to discuss our deployment of the EHR system. I again extend my gratitude to Congress for your continued support and shared commitment to serving Veterans. Because of your support, VA, in coordination with DoD, will realize the full promise of a modern, seamless, integrated health record that will contribute to the health and well-being of the Veterans in our care. My team and I are happy to respond to any questions that you may have.

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