THE FUTURE OF VA SCHEDULING: IMPLEMENTING A COMMERCIAL OFF THE SHELF SCHEDULING SOLUTION AT THE DEPARTMENT OF VETERANS AFFAIRS

HEARING

BEFORE THE

SUBCOMMITTEE ON TECHNOLOGY MODERNIZATION

OF THE

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September 26, 2019

COMMITTEE ON VETERANS' AFFAIRS,
U. S. HOUSE OF REPRESENTATIVES,
Washington, D.C.

The Subcommittee met, pursuant to notice, at 10:02 a.m., in Room 210, House Visitors Center, Hon. Susie Lee [Chairwoman of the Subcommittee] presiding.

Present: Representatives Lee, Lamb, Cunningham, Banks, Watkins, and Roy.

OPENING STATEMENT OF SUSIE LEE, CHAIRWOMAN

Ms. LEE. Good morning. The hearing will come to order.

First of all, I would like to thank Ranking Member Banks, as well as all of our witnesses, for being here today and taking the time to present to us. Thank you.

We have spent a lot of time in this Congress talking about the Electronic Health Record Modernization and VA's Cerner Millennium platform. While the success of that transition obviously is critically important, it is by no means the only major technology modernization project underway at the Department of Veterans Affairs.

For almost 20 years, VA has attempted to update its patient appointment scheduling system. And I had to get a representation of all the iterations that have happened in the past 20 years, which is behind me. The old system, the VistA legacy system is written in archaic programming language, its user interface is confusing and cumbersome, and complicated workflows require schedulers to memorize hundreds of rules and apply them appropriately when scheduling an appointment; obviously, in need of an update.

And the VA tried to update this by developing a graphical user interface and automating some of the scheduling rules. Unfortunately, it was not much more than a fresh coat of paint. The project dubbed VistA Scheduling Enhancement, or VSE, did not address data quality issues, did not bring the VA much closer to the current state of health care information systems.

Also, as the Office of Inspector General found in its August report on VSE, there were problems with the management of the program, including leadership turnover and inadequate requirements

development. These seemed to be the same issues that recur again at every VA modernization program.

I will add further that the history of the VSE indicates that VA did not know what it wanted from the scheduling system before it signed the contract and began developed, and I am concerned that some of that uncertainty continues.

In 2015, the VA contracted for $624 million to implement another commercial off-the-shelf scheduling system, the Medical Appointment Scheduling System, or MASS, which was then downgraded to a pilot.

In April of last year, the VA actually completed that pilot program in Columbus, Ohio and by all reports, including the VA's own assessment, the pilot was a huge success. VA found increased scheduling system efficiencies, improved timely access to services for veterans, increased productivity, and a substantial decrease in overtime. However, just 8 months after that implementation, the VA opted to not expand that successful pilot any further.

Now the VA plans to implement Cerner's scheduling solution, but on a separate and faster deployment schedule than the rest of the electronic health record. I support efforts to improve scheduling, increase transparency into wait times, and ensure that all veterans spend less time waiting for appointments.

As we discussed at our Full Committee hearing in July, wait times continue to be complicated and an unfortunate situation at the VA that must be addressed.

The VA originally notified Congress of its intent to implement the Cerner Scheduling Solution in December of 2018. At that time, VA told Congress that the deployment would be completed in 2023. VA also told Congress that this would be a better, more cost-effective solution. However, it has been difficult to get information to support those assertions.

Last week, representatives from the Office of Electronic Health Record Modernization briefed staff that the current plan is now completion in 2025, 2 years longer than was originally notified to Congress. OEHRM contends that this project will not add additional costs to the $16 billion EHRM project, but will require moving funds forward from later in the project.

Basic contracting procedures require that VA should compare available solutions and decide what works best for its needs. That is basic-level market research and requirements development.

I have several serious reservations with this mid-flight change of approach. First, common business and management practice would dictate that VA would conduct an apples-to-apples comparison of off-the-shelf solutions, especially given the investment of resources and apparent success of the MASS pilot program.

Second, I wonder why none of this would have been done before proceeding with the Cerner Scheduling Solution implementation. It just seems a little backwards to me.

VA said it plans to begin the Cerner implementation in Columbus. So just months after the successful completion of one scheduling solution, VA is going to scrap it implement another. I expect our VA witnesses here today to explain how that is not wasteful. Further, there is a lot of change being planned, obviously, in VA

health care and change fatigue is a real concern. So I plan on hearing how the VA is planning to mitigate that.

I am also concerned that the VA made assertions to Congress before it had any actual analysis of user needs, of costs, or of benefits. Despite being 6 months out from beginning system implementation, the plan seems to be in rough shape. This include costs which the VA has said won't be finalized until November.

It is my hope that we can end this hearing with more information and reassurance that VA has its plan on track. We need specifics on cost, schedule and change management plan, and the infrastructure investments needed for this ambitious project.

I thank all of the witnesses for taking time to be here and for your work on this incredibly important project, and I look forward to hearing your testimony.

I would now like to recognize my colleague, Ranking Member Banks, for 5 minutes to deliver any opening remarks.

Mr. Banks?

OPENING STATEMENT OF JIM BANKS, RANKING MEMBER

Mr. BANKS. Thank you, Madam Chair.

The appointment scheduling system is the VA IT system most badly in need of an overhaul, more so than the financial system, the claims-paying system, or even the EHR. That was true 5 years ago when the secret wait list scandal in Phoenix broke and, despite some incremental improvements to VistA, it is still true today.

VA spent much of 2018 deciding which scheduling system to select. The decision in December to go with Cerner did not come as much of a surprise. After all, VA already committed to buy the Cerner scheduling package along with the EHR. The idea to put the scheduling implementation on a separate faster track seems justified. However, my colleagues and I have spent all year for the details and analysis, but that information is only now starting to emerge. I need to see a lot more before I can put my confidence in this plan.

First and foremost, I was disappointed to see the 3-year scheduling implementation stretch out to 5 years before it even begins, and I am not so sure that this still qualifies as, quote, "accelerated."

Secondly, I disagree with the decision to select Columbus, Ohio, where the EPIC scheduling system was installed as a pilot, as the first site for the Cerner scheduling system. This EPIC pilot has by all accounts been very successful. It is true that Columbus is a convenient site to install Cerner scheduling because the technical groundwork has already been laid, but by pulling the plug on EPIC, VA is forfeiting the opportunity, which may become valuable in the future, to encourage greater interoperability between Cerner and EPIC.

Thirdly, I cannot help but notice the disparity between the analysis VA performed by the Columbus EPIC pilot and the minimal analysis of what the Cerner scheduling implementation will entail. Cerner and EPIC are both commercial software, but there seems to be an assumption that everything known about EPIC is also true about Cerner.

Accelerating the Cerner scheduling implementation still seems to be the right thing to do. That being said, as information continues to come in, I am prepared to reevaluate, and I hope VA will do the same. It is very important that the political inertia never be allowed to take precedence over the facts on the ground.

Relatedly, I would like to address a few other topics pertaining to EHR modernization. The formal partnership between OIT and OEHRM to build the data interfaces that was so encouraging at the time of our last hearing seems to have crumbled. This is a large and critical task and I don't believe any entity can handle it alone.

Today is an unfortunate anniversary. The Secretaries of DoD and VA signed their joint commitment statement exactly 1 year ago today, but the FEHRM still has not been established. The interim Director and Deputy Director have been working together amicably for several months, but without an organization beneath them their effectiveness is limited.

I think we must be realistic about what is achievable at this point. We need to turn the page on the idea the firm is standing up the EHRs. The critical decision-making window is closing. The firm can still be helpful as a governance body to sustain the EHRs, but we have to calibrate expectations accordingly.

Before I yield, I want to also revisit the issue of EHRM cost estimates. Last year, I expressed frustration with the explanations VA was providing as to the assumptions underlying the cost estimate. Mr. Lamb and I sent a letter requesting the raw numbers. What we received in response was the same top-line estimates and, every time we scrutinized an assumption, it would suddenly change. OEHRM seems to have reacted to the Subcommittee's oversight by zealously defending its funding. The cost estimate is still very much a black box and it is clear that the actual spending rate is trending farther below the original projection. While that seems positive at first glance, OEHRM seems to have achieved it by shifting more costs onto other organizations within VA, and I intend to monitor that very closely.

With that, Madam Chair, I yield back.

Ms. LEE. Thank you. I would now like to introduce the witnesses we have before the Subcommittee today.

Mr. John Windom is the Executive Director of the Office of Electronic Health Record Modernization at the Department of Veterans Affairs. Mr. Windom is accompanied by Dominic Cussatt, Principal Deputy Assistant Secretary, Office of Information and Technology; Dr. Michael Davies, Senior Advisor to the Assistant Deputy Under Secretary for Health Access at the Veterans Health Administration; Dr. Laura Kroupa, the Chief Medical Officer for the Office of Electronic Health Record Modernization; and John Short, Chief Technology and Integration Officer for the Office of Electronic Health Record Modernization.

We also have Mr. Larry Reinkemeyer, Assistant Inspector General for the Audits and Evaluations from the VA's Office of Inspector General.

Thank you all for being here.

We will now hear the prepared statements from our panel members. Your written statements in full will be included in the hearing record without objection.

Mr. Windom, you are recognized for 5 minutes.

STATEMENT OF JOHN WINDOM

Mr. WINDOM. Thank you, Madam Chair Lee.

Good morning, Madam Chair Lee, Ranking Member Banks, and distinguished members of the Subcommittee. First, I want to thank you and the members of the Subcommittee for your unwavering support of the Department of Veterans Affairs' Electronic Health Record Modernization effort. Without your steadfast support, VA would not be able to deliver this critical capability in support of our veterans. Thank you for the opportunity to testify in support of the VA's initiative to modernize clinical scheduling by accelerating the implementation of the Cerner Scheduling Solution.

I am accompanied today, as you just mentioned, by Dominic Cussatt, Principal Deputy Assistant Secretary for the Office of Information and Technology; Dr. Laura Kroupa, Chief Medical Officer for the Office of Electronic Health Record Modernization; Mr. John Short, Chief Technology and Integration Officer for the Office of Electronic Health Record Modernization; Dr. Michael Davies, Senior Advisor to the Assistant Deputy Under Secretary for Health Access, Veterans Health Administration.

VA currently manages clinical scheduling using the Veterans Health Information Systems and Technology Architecture, also known as VistA. According to a VA study, VistA scheduling does not provide VA with the requisite functionality, usability, and overarching business benefits. The outdated user interface and cumbersome manual processes create inefficiencies and prevent schedulers from viewing the medical provider's complete picture of available appointments.

As a result, in 2018, VA piloted the Medical Appointment Scheduling System, also known as MASS, a commercial resource-based scheduling solution in Columbus, Ohio, to replace the clinic-based VistA scheduling system. The pilot demonstrated that resource-based solutions, improve timely access for veterans, increase provider productivity, and enhance schedule efficiencies.

Further, the resource-based solution increased visibility of available appointments, allow providers a comprehensive view of their entire day, and enable staff to efficiently manage resources needed for appointments. Because a resource-based scheduling solution supports delivering better health care for our veterans, VA will implement CSS to bring these benefits to all veterans. VA's EHR Modernization contract contains the licenses to implement CSS across the enterprise to fulfill interoperability objectives. With congressional consent, VA will ultimately seek to pull forward funding from OEHRM's life cycle cost estimate to achieve this initiative. Like MASS, CSS is a resource-based scheduling solution and will be implemented in a number of VA facilities in advance of the full EHR Modernization capabilities.

The Chalmers P. Wylie Ambulatory Care Center in Columbus, Ohio will serve as the pilot for CSS and will go live in April of 2020. The Louis Stokes VA Medical Center in Cleveland, Ohio will

serve as the next and larger pilot site for CSS. VA will leverage the architecture and lessons learned from the MASS solution by collaborating with key holders' stake from MASS implementation to ensure these lessons learned are incorporated into VA's new scheduling plan. VA has established a dedicated pillar or division within OEHRM to provide oversight of the CSS integration, deployment, and change management activities. Further, the pillar will collaborate with partners such as VHA, OIT, and Veterans Benefits Administration to successfully implement the CSS solution.

Accelerating CSS implementation will enable VA to provide a resource-based scheduling solution across the enterprise sooner, and also replace VistA's Scheduling Enhancement, VSE, which is the current temporary bridge for scheduling needs.

In August 2019, VA's Office of Inspector General assessed VA's management of VSE and recommended broadly the VA improve project management oversight. VA concurred with OIG's recommendations and is implementing a new process to independently ensure that IT projects deliver the intended outcomes.

As demonstrated by our efforts, it is clear VA is committed to providing the best care to our Nation's veterans. Through the CSS initiative, VA will provide a state-of-the-market scheduling solution that upholds the Department's commitment to improve care and access to staff and on behalf of our veterans.

Madam Chair, this concludes my opening statement. I am happy to answer any questions that you and the members of this Subcommittee may have. Thank you once again.

[THE PREPARED STATEMENT OF PAUL TIBBITS APPEARS IN THE APPENDIX]

Ms. LEE. Thank you, Mr. Windom.

Mr. Reinkemeyer, you are now recognized for 5 minutes.

STATEMENT OF LARRY REINKEMEYER

Mr. REINKEMEYER. Thank you.

Chairwoman Lee, Ranking Member Banks, and members of the Subcommittee, thank you for the opportunity to discuss the Office of Inspector General's oversight of the Department of Veterans Affairs medical scheduling enhancement efforts.

Our August 2019 report on VA's implementation of the VistA Scheduling Enhancement Project examined whether the Office of Information and Technology and the Veterans Health Administration effectively managed its implementation of the VSE project.

Although VSE is a relatively small program, originally planned for a little over $4 million, VSE was intended to provide essential near-term enhancements. VSE represented a short-term fix by updating the graphical user interface. VSE did not change any of the functionality of the VistA scheduling system, only the look of the screens. Essentially, the screens would now resemble the calendar screens you might see in your own Outlook calendar. This seemingly small change was expected to significantly reduce the time it took schedulers to schedule appointments.

Since the 1980s, VHA has relied on the VistA system to make and track patient medical appointments. The technology underlying this legacy scheduling system used by VA medical facilities

became cumbersome, outdated, and unable to handle the complexities and volume of VHA scheduling requirements as they developed and expanded over time. The scheduling system was also not designed to integrate mobile, Web, and telehealth scheduling.

As described in more detail in my statement for the record, VA began to update its VistA legacy program in fiscal year 2000 with the launch of the replacement scheduling application, a commercial off-the-shelf software program, and ultimately settling on the VSE as a short-term solution. VSE was a near-term fix while MASS was to be developed almost concurrently and would represent the long-term solution. Then MASS was put on hold to place more emphasis on VSE and, a few months after that, MASS was restarted and essentially deployed to one location.

Now VA intends to fast-track the scheduling component of the new electronic health record, and it stopped any significant work on VSE and MASS.

VSE's planned completion date of November 2015 extended well into 2018, a delay of almost 3 years, and the cost increased from a little over $4 million to almost $7 million.

Our audit identified three key findings. First, VSE requirements were not properly defined to meet user needs. Because VSE was intended to be a quick and simple short-term solution, VA did not put enough effort into developing and validating the requirements. Users were left out of the requirements discussion and, as a result, a number of functionality and usability issues surfaced. For example, schedulers needed to toggle back and forth between VistA, VSE, and the patient records system, which effectively negated any time savings.

Second, insufficient testing during the development phase led to unidentified deficiencies and, once deficiencies were identified, contractors failed to address them.

From June 2015 through July 2016, a number of problems were identified at the initial deployment site in Asheville, North Carolina, most significant of which was system slowness. Additional deficiencies included limitations on canceling and scheduling appointments. Many of these functional deficiencies could be traced back to inadequate requirements determination.

Third, staff turnover in key management positions delayed the development and implementation of VSE due to the loss of project and program knowledge.

We recommended that the VA Assistant Secretary for Information and Technology, who is also the Chief Information Officer, enforce required project management processes to ensure project planning requirements are adequately defined and supported before starting information technology projects. VA concurred with the recommendation and requested closure, as it has implemented a new program management review process through a policy memorandum signed on July 15th, 2019; we have not closed that recommendation. We will monitor the Department's progress and we will follow up on the implementation of the policy memorandum to ensure it addresses the intent of the recommendation.

Madam Chairwoman and Ranking Member Banks, this concludes my statement, and I would be pleased to answer any questions you or other members may have.

[THE PREPARED STATEMENT OF PAUL TIBBITS APPEARS IN THE APPENDIX]

Ms. LEE. Thank you, Mr. Reinkemeyer. I will now recognize myself for 5 minutes.

When VA first notified Congress of its intention to deploy the CSS separate from EHRM, the timeline for completion was to be at the end of 2023, now we are hearing the timeline is the end of 2025.

Last year, shortly after the successful MASS pilot in Ohio, an executive from Leidos told the Washington Post, quote, "We communicated to the VA that we are able to do a national deployment in 24 months and we can do it for less than $350 million.

So, based on that information, three issues rise to the top for me. First, as Ranking Member Banks pointed out in his opening statements, the very definition of interoperability means that two systems, especially two systems that top-tier EHR vendors, would be able to work together. Many health care systems that have done this have this very same arrangement.

Secondly, Cerner's solution would not completely be deployed until 4 years after the MASS system would have also been in place across the finally. And then, finally, the costs that were projected by Leidos to be $350 million.

Mr. Windom, can you—you know, I just—can you explain the logic behind making this decision?

Mr. WINDOM. Ma'am, when we awarded the Electronic Health Record Modernization contract, it was in—supported deploying the full suite. Interoperabilities are more readily achieved objectives by being on the same common solution.

There is a cost to integrating platforms. If you are trying to implement, in this case the EPIC solution with the Cerner solution, that is an integration cost and a time-consuming consideration that had not even been evaluated. We paid for the Cerner licenses as part of the EHR contract, it made business sense to not duplicate that payment by installing another system.

I fortunately led the DoD effort in the acquisition of the Cerner Millennium solution under a competitive environment. The scheduling systems are similar, they are both resource-based solutions, and so sticking with a platform where software updates would be, if you will, facilitated by that common solution, it just made sense.

We are—the 3-year verse 5-year deployment track, the 3-year deployment track was a number drawn without all of the comprehensive research that is necessary to develop an integrated schedule. Five years is more appropriate, especially appropriate for doing it right in a risk-mitigated fashion and support of the least amount of disruption for our veterans.

I can't speak to the Leidos declaration. I can tell you it was $700 million ceiling contract, so I am not sure why it would be articulated that they could be doing it for half the price. So, I can't speak to that. All I can tell you, ma'am, is that this is hard, and we are mitigating risk in the best interest of our veterans, and we think we have a prospective timeline that does that and delivers the requisite capabilities.

Ms. LEE. A couple things. First of all, probably my biggest concern is, I understand that having one system makes interoper-

ability much easier, but the bottom line is, we are on the MISSION Act, we are going to be requiring community providers to talk with the VA. So is your plan that everyone is going to have to have a Cerner operating system? I mean, wouldn't you would want interoperability with other vendors?

Mr. WINDOM. Yeah, I think when you consider, ma'am—the answer is yes, we agree. When you consider the fact that we have 130 disparate solutions within the framework of VA today, integrating—or incorporating another integration challenge. One of the toughest parts of our job is that we have to integrate into an existing solution and minimize the disruption that takes place to our care provisions, and so this is a measure that minimized that disruption.

We can evolve into the interoperability platform that you just recommended, and I think that is likely forthcoming, but I guess I want to make sure it is clear as well is that the existing contract expires in June of 2020. So we do not have the opportunity to stay on the present scheduling platform deployed to the Columbus pilot, hence our desire to get there first, replace that expiring contract with a new contract to take us into the future.

Ms. LEE. Thank you. My time is up. I will recognize Ranking Member Banks for 5 minutes.

Mr. BANKS. Thank you, Madam Chair.

Dr. Davies, I supported the decision to put the scheduling project on a faster track than the rest of the EHR, I supported the decision to wait until Cerner goes live at Spokane before starting the scheduling project, but all that was based on finishing in 2023. VA needed a modern scheduling system years ago; how can we say 2025 is an acceleration?

Dr. DAVIES. As Mr. Windom said, Mr. Banks, the date of 2023 was reached in December when there was little visibility into what the actual project would look like. And now that we have greater visibility into what Cerner's scheduling implementation is going to take and we have an opportunity to reflect back on what happened in Columbus through the lessons learned, we realize that to do this right, to do the organizational change management, to get the benefits for the patients of shorter waiting times, for the providers with doing more work, more completed appointments, and the schedulers for being able to incorporate this into the work, we need to take the time to do it right, start with the pilots in Columbus and Cleveland, and then use that experience to go as fast as we can through the rest of the country as it makes sense.

Mr. BANKS. How much is that acceleration going to cost?

Dr. DAVIES. I would defer that question to Mr. Windom.

Mr. BANKS. Dr. Davies, how much of the cost is expenses being pulled forward and how much would be the new expenses?

Dr. DAVIES. Sir, I would ask Mr. Windom to weigh in on that.

Mr. BANKS. Mr. Reinkemeyer, in your written—do you want me to defer?

All right. Mr. Windom, do you want to answer that?

Mr. WINDOM. Sir, we think there are three cost pools. Again, the infrastructure cost, which is the piece that we are still evaluating. We want to make sure—we think that the delta between the EHR,

first of all, the primary cost of being brought forward from out years, if Congress concurs.

The infrastructure piece is that tough piece to calculate, because what we don't want to do is overly invest in infrastructure to deliver scheduling and then when the remainder of the best of suite comes around, some new innovative approach renders that infrastructure upgrades obsolete.

So we want to update the infrastructure in the right way and so we are seeking to finalize the capture of those costs, sir. So we should have—within a matter of weeks, we should have actually detailed cost estimates that we would enter into negotiations with Cerner on.

Mr. BANKS. Okay, we look forward to that.

Mr. Reinkemeyer, in your written testimony you state that the VA expected the VistA Scheduling Enhancement would save schedulers time, but, quote, "it failed to deliver on that promise." Can you elaborate on how VSE was supposed to do this and how you determined that it failed?

Mr. REINKEMEYER. Not via—I cannot elaborate in a technical sense, but I can tell you that what we found was that during the requirements development process where the Department was trying to establish what they needed from VSE, they really excluded the users. And as part of that—or, you know, essentially, without getting the user's involvement, the requirements were not developed adequately, they were not the requirements, the right requirements, and then when they went to test it at the initial operating capability site in Asheville, North Carolina, that was some of the problems that they discovered. That, you know, having to toggle back and forth between the VSE system and the computerized patient records system and VistA was just taking too long.

Mr. BANKS. Dr. Davies, do you agree with that?

Dr. DAVIES. I think it is important to remember that the users were thrilled at the time that we actually had VSE funded, that we actually had funding to improve scheduling. The users had one week to put in contract requirements that would kick this off, so there was no time during that time in history for those requirements to be fully elaborated, nor to bring in the users. So we had to depend on the analysis of alternatives that had been done 3 years earlier to come up with the broad statements that we knew were the direction that needed to be—to go in, and then use the contract time to more fully elaborate the requirements.

Mr. Reinkemeyer is right, I mean, the users were not brought in at that time; they were brought in later, so it became something that was improved over time.

Mr. BANKS. Thank you. I yield back.

Ms. LEE. Thank you. I now recognize Mr. Lamb for 5 minutes.

Mr. LAMB. Thank you, Madam Chairwoman.

I am not sure who knows this, so anyone can feel free to speak up, but the original contract for MASS was $624 million; is that a correct number?

Okay, I am getting nods, just for the record. That's good.

How much of that $624 million did we spend?

Dr. DAVIES. Well, I will speak up and say I believe we spent $17 million on the pilot in Columbus, and then I believe we also spent

another $2.5 million initially on the contract to do planning for national roll-out. There may be other costs that I am not aware of, but those are the two numbers that I am aware of.

Mr. LAMB. Okay. Anyone—

Mr. WINDOM. Congressman Lamb, I would ask that we take that for a look-up. That is an OIT project and we would have to reach into the OIT portfolio to pull out what was expanded against the ceiling of that existing contract.

Mr. LAMB. Okay. Yeah, I mean, that is an important number for us to have when we are looking at all the money that is being spent on something that we are not actually going to use.

Now, in your comments, I think it was Dr. Davies who said that there were lessons learned from MASS in Columbus and that that is actually why you want to debut the Cerner solution there, because you think that there are—what I took from what you are saying is you think there are aspects of what was learned in MASS that could be incorporated into Cerner, do I have that right?

Mr. WINDOM. Yeah, I would offer, sir, that the driving element for replacing Columbus is the expiring contract that supports the present EHR system. That expires in June of 2020; hence we are trying to get there and replace it before that contract expires and there is no software support after that.

So it is our intent to replace out a system and then—and, oh, by the way, as it provides a system that has already transitioned to a commercial-based, resource-driven scheduling system, and we feel like that is a way to facilitate better understanding for deployment across the enterprise.

Mr. LAMB. Yeah, that part I understand, but you chose Columbus as a pilot site—maybe not you personally, but VA chose Columbus as a pilot site originally knowing about the length of that contract. So you chose Columbus for whatever advantages it presented, inked a $624 million contract, and then set aside the thing that we built with that $20 million.

So that drives a little bit of the skepticism that you may be perceiving. I understand it if you have decided that, since we are going with Cerner, we might as well have a Cerner scheduling platform, but we are right to be concerned about sort of the sunk costs of this other idea called MASS, right?

Mr. WINDOM. I agree, sir, with the sunk-cost element. I guess I would state that the MASS contract was awarded in August of 2015, the D&F that established that VA would move to the same common solution that DoD was on and Cerner Millennium was awarded in May of 2017. So the commitment to that pilot site had taken place nearly 2 years in advance of the contemplation of a D&F.

Mr. LAMB. Right. So that is why I am saying I understand where you want to go with this now. I think we are still quite puzzled at the timelines and how long it is going to take and what the advantages are.

But I guess with my remaining minute and a half I would like to know, what protocol are in place right now to make sure that we maximize the lessons learned in Columbus for the Cerner solution? In other words, how are you going to be sure that Cerner

builds you something there that builds on what seems to be the strength of MASS?

I mean, I am no expert, but what I can read here makes it seem like the costs went down, the wait times went down, less overtime, that kind of thing. So what specifically is going to take place?

Dr. DAVIES. We have three things that—first of all, there are documents that have our written lessons learned that have been shared among the teams. Secondly, I think we have learned that it is critical to have the software implemented right. So we have teams doing site assessments, talking to the people who did the MASS contract in Columbus, the old contractor, and connecting them with the new contractor to take advantage of the work that has already been done.

Secondly, the training of the schedulers. We are incorporating VA schedulers into the training going forward, because we learned how important it is to implement the new system in the VA environment and it takes those VA trainers who understand the work to be able to do the training.

And, thirdly, we are going to sit down with every single provider and make sure they understand what their old schedule looked like and what their new schedule is going to look like in the old system. Keep in mind that in the old system, we really didn't have a schedule, we had sort of a data-collection system where each provider had multiple schedules. In Columbus, there was an average of six profiles or grids or schedules for every day that someone came in to work.

We are now translating that into one sort of Outlook-Calendar based schedule where you can see your work from beginning to end, and the providers need to be involved in how their time is deployed and what they are doing.

Mr. LAMB. Thank you. And I am out of time, so I will just cut you off, but I just want you to know that that last point is the one I think a lot of us care about the most. We talk to the providers when we are back in our districts or when we are visiting these hospitals, and they absolutely have to be included to the maximum extent possible. I know you all and Cerner have tried to do that, so please keep your focus on that.

Thank you.

Ms. LEE. Thank you.

I now recognize Mr. Watkins for 5 minutes.

Mr. WATKINS. Thank you, Madam Chair.

Mr. Windom, VA clearly thinks Cerner's scheduling system is good product, we do too, but the Department has cycled through three different systems in the last several years. What assurance can you give us that this will be the last VA scheduling project?

Mr. WINDOM. Sir, our goal, our overall goal obviously revolves around interoperability and delivering a state-of-the-market solution to our users, our clinicians primarily. And so what we are getting in this commercial-based product known as Cerner Millennium is an evolving product that is leveraging the best of the commercial environment, the best of VA innovation, and will evolve to the needs of the Department, I think, realtime.

I know the Columbus site deployment of a different solution inspires concern, but, again, when you look at the timelines of how

those decisions were made, we would be remiss if we didn't go there first. The infrastructure needs are minimum, such that we can inject a very similar functional resource planning tool.

And so I think what you will see is a—again, when we set these project timelines as well of 5 years, please understand, we are looking to optimize efficiencies. What we want to give you is a realistic timeline and then impress you with our deployment efforts and actually deliver sooner.

So, sir, I think delivering capabilities in this fashion where these areas don't have to wait on the full implementation are going to benefit our veterans as a whole.

Mr. WATKINS. Thank you.

Dr. Kroupa, I understand the VA has decided not to purchase the dental electronic health record from the Henry Schein Company. Your original plan was to implement this system alongside Cerner. Can you explain the thinking here?

Dr. KROUPA. Certainly. Thank you.

So when our dental council evaluated the Henry Schein product, they had concerns that it would not meet all of their needs. And we consulted with DoD who was using that product, and the decision was made that we needed more time to develop the functionality that they needed. And so our best course of action for our initial operating capability was to have an interface to the current dental record manager that we're using now and then take some time to develop out a better product for us to use.

Mr. WATKINS. Thank you, Doctor.

Mr. Cussatt, VA schedulers will continue using the VistA scheduling enhancement system until Cerner is fully implemented. But the VistA scheduling enhancement still has 23 outstanding defects that impact its usability.

What is your plan to fix the defects?

Mr. CUSSATT. Thank you, Mr. Watkins, for the question.

Our plan is to keep VSE in sustainment. We see it as in sustainment and we will fix issues as they occur. So we do intend to fix any issues that pop up during the remaining life cycle of VSE.

Mr. WATKINS. Mr. Reinkemeyer, do you have anything to add to that?

Mr. REINKEMEYER. No.

Mr. WATKINS. I yield the balance of my time.

Ms. LEE. Thank you.

I now recognize Mr. Roy for 5 minutes.

[Pause]

Ms. LEE. Okay. We will reset.

[Pause]

Mr. ROY. I apologize for that. I thought we were going to the other side of the aisle, so I was distracted for a moment.

I appreciate you all being here. I appreciate the difficulty of the task that we are discussing. My background, for what it is worth, I have a masters in management information systems, dealt with system implementations in previous lives, previous jobs. I was also in government as the first assistant attorney general of Texas having to deal with implementation of child support systems. So I understand a lot of the difficulties that go into that.

I do think that, you know, there are obviously some concerns here about, you know, the timing and the length of this and what the ultimate result and the product will be. You know, the good news is I have spent a great deal of time in my district in August, the district I represent in Texas 21, which has Kerrville. And San Antonio, we have got some significant VA facilities and a large number of veterans.

And the overwhelming sense from the folks that I talk to, particularly in Kerrville and in Audie Murphy, is that where things are already moving quickly with MISSION, they are seeing some very positive results and they are seeing some significant improvements in what is happening in terms of service, and we are getting very—I am getting a very positive feeling on that right now.

But the continued concern being raised, of course, is everything we are talking about here in terms of how health records and scheduling and all of these kind of work and how much that interferes with the larger goals and initiatives of what we are trying to do to deliver health and deliver services to veterans.

Obviously, that is a statement and we are here to hear from you all. But it is—I will just say, you know, one last point on this. Right. In the time since this timeline began, right, you know, this didn't exist. You know, 11 years ago, 12 years ago this didn't even exist. That is both a statement of the difficulty of the task, as technology has evolved so quickly, and it is also a statement of can't we get this done. So many great things have occurred in such a quick way.

And the one thing I would throw out there that I think is worthy of discussion, the Army Futures Command, which I am proud to represent in Austin, Texas has a co-located facility that is located in downtown Austin, but with the Capital Factory, which is a place in Austin, Texas where you bring a bunch of entrepreneurs together to smash people together for idea generation.

I would like to at least discuss the benefit of having, you know, a VA component to something like that. It doesn't have to necessarily be in Capital Factory in Austin, Texas, although I would obviously advocate for that. But that kind of thinking and approach to figure out how we can sort of bust through what is a perpetual problem in government systems development.

I mean, let's just be honest. We all know it is a problem. My dad worked in systems development in the Internal Revenue Service in the 1980s. I kind of grew up around this and understood it and saw it in terms of tax systems modernization. It is hard and I get it.

But sometimes we get caught up in all of the buzz words of interoperability and synergies and, you know, we can go down the list of the words that will make up 80 percent of testimony typically when we hear about these technologies. And I get it. I understand it. But we get wrapped around those axles in my opinion.

A couple of quick questions if you don't mind.

Dr. Davies, Dr. Kroupa, the scheduling system is obviously very important to wait times. What impact will accelerating the implementation of the Cerner scheduling system have on wait times calculation and on the referral system?

Dr. DAVIES. We believe, and our experience has been that a resource based system with a single calendar improves wait times.

That was our experience in Columbus, Ohio. And we anticipate that benefit throughout the rest of the country.

Mr. ROY. Will that be experienced immediately?

Dr. DAVIES. No. In Columbus it took about 6 months to get to an equilibrium where we had the system generated time stamps kick in, and then after that we saw the improvement in wait times.

So part of the issue was measurement of the wait times. The other part of the issue is working more efficiently with better tools.

Mr. ROY. Okay.

Mr. Cussatt, the Office of Information and Technology has cycled through a lot of different project management processes over the years. I understand you have a new one called Agile DevOps. VA's record of IT capabilities versus IT investment has been raised as a question over the years.

How is this new process different and what should we expect from it?

Mr. CUSSATT. So you are correct. We have, since about 2016, adopted both ITIL practices and DevOps and Agile practices, and we are actually in the process of renaming DevOps to DevSecOps to show the security we build in.

So that coupled with our VIP acquisition process embeds all the best practices for engineering and architecting and program management into our programs, and we have been having some success around that with over a 90 percent delivery rate on time and within scope and budget for our programs.

Mr. ROY. Well, thank you very much.

Ms. LEE. Thank you.

I now recognize myself for 5 minutes.

Mr. Reinkemeyer, based on the recommendation made in the VSE report, would the Inspector General be concerned about the testimony we are hearing right now regarding the lack of concrete plans? Why or why not?

Mr. REINKEMEYER. So, yes, we would. As was just stated, there have been a number of IT processes over the years. They all offer, you know, advantages and disadvantages and you could compare and contrast them.

But essentially it boils down to having a discipline in place to manage the system that you are developing. You have to be able to balance the agility that you want with the discipline to ensure that cost analysis, business cases, testing, all of the required elements are in place.

And that is really what is boiled down to the findings that we have had over the years in whatever system we are looking at is, is there a sufficient discipline to ensure that all of the key components of that system are managed and there is visibility and there is oversight over all of those functions.

Ms. LEE. Thank you.

At a recent briefing, Mr. Windom, you indicated that the VA expected to achieve a substantial out year savings in Fiscal Years 2023 to 2027 due to an expected reduction in IT costs.

You specifically cited the declining costs of items such as computers, servers, networking equipment as contributing factors. I am concerned that these estimates do not consider the need to keep

pace with the evolving state of technology as my colleague, Mr. Roy, pointed out.

Yes, it is true that a laptop that costs $2,000 today might cost $1,000 next year. The government, however, should not be planning to buy outdated technology as a cost savings. What is the strategy? I mean, where did you get to that conclusion?

Mr. WINDOM. Ma'am, I think those remarks may have been attributed to me by accident. I have done no analysis of out-year equipment purchases. I would defer to my Chief Technology and Integration Officer on where he thinks innovation is going in the way of end user devices, whether it be as a service or whatever.

So I have no recollection of ever making such a statement because I have done no analysis in that arena.

Ms. LEE. Mr. Short, can you weigh in on that?

Mr. SHORT. Yes, ma'am. I didn't make that statement either, but, yes, I will weigh in on that.

In that regard, it would be included in the Cerner cost throughout the program more and more of the EHR functions, scheduling functions, everything is included in the cost that we have laid out for the 10 years. And as over time, all the VistA pieces will be deprecated on the EHR side and OIT is looking at the other portions of VistA.

So for many of the systems we have identified, there is over 60 that we have identified outside of VistA that would also go away through that 10 year transition, those would be the ones that could be attributed to that, reducing the servers and overall maintenance of those systems.

Ms. LEE. Okay. But let me be clear. So we are going to start—you are going to start the scheduling process literally from the east coast going west. But you are starting the EHR from the west coast going east.

So how do you plan—like, you know, there is infrastructure issues, obviously. And, by the way, you are not going to start—you are not going to implement the EHR in Columbus until 2025 or 2026. So have you accounted for the infrastructure needs with that sort of crisscrossing the country?

Mr. WINDOM. Ma'am, I eluded to it earlier. That is why it is so important to get the infrastructure planned right. I don't want to introduce to you costs that need to be brought forward until we put the appropriate rigor in what is the, I don't want to say the minimum level of infrastructure investments, but the right level of infrastructure investments to support just the scheduling deployment.

We are doing current state reviews just like we did on the full implementation. And so we will have better visibility on what actual infrastructure costs will be.

As you know in the pacific northwest, we discovered a substantial refresh element that needed to be done in advance of deploying the EHR. We want to put the same rigor, again, that is why we are going to go Cleveland as a second pilot because we believe Columbus has already been updated, upgraded based on our assessments, and so it wouldn't be a true representation of what is out there in the enterprise because as you have indicated before, they have deployed the MASS solution. So they are primed to receive

the Cerner Millennium Solution which would not be a representative example of the environment.

So CSRs, ma'am, will give us that visibility where we have turned on a CSR for Cleveland. And so we expect to have realtime data for you in the coming weeks.

Ms. LEE. Okay. So we are expecting some cost estimates around November. Is that included in this or is that separate?

Mr. WINDOM. Ma'am, the only remaining cost estimate we have for you is infrastructure. We have got visibility on what we believe the EHR—again, a separate labor force has to be set up in Columbus. That is a cost that is separate from the licensing to change management which is already incorporated in the contract.

In addition, we think—as you heard, and if I may respond to a question, we think we are bringing stability to this because the pillar that leads scheduling will be under the OEHRM umbrella, not under OIT, not under VHA. So there won't be any mixed messaging provided to Cerner that they could potentially capitalize on. We will be directing, with the support of OIT and VHA, our partnership remains paramount. And so we think we have a plan that stabilizes our deployment, vice creates any additional risk.

Ms. LEE. I am over time.

I now recognize Ranking Member Banks.

Mr. BANKS. Thank you, Madam Chair.

Mr. Windom, I think VA is making the right decision to go live with the Cerner functionality at Seattle and American Lake in October 2020 rather than partial functionality in April and the rest later.

Can you elaborate on how that decision was made?

Mr. WINDOM. Sir, the one thing I have to keep reminding myself, especially as a non-clinician, is that this is about the end users. This is about changed management and user adoption success.

And so I would rather defer that to Dr. Kroupa because that is what our strategies are primarily revolved around, is making sure we roll out capabilities in a way that maximizes user adoption vice inhibits the education and training process that we know.

So, sir, if I may defer to Dr. Kroupa.

Ma'am.

Dr. KROUPA. Certainly. Thank you.

So the decision to go to Puget Sound in October was really based on the timeline that was needed to develop the workflows and the functionality that is needed at a highly complex, two-division, academic medical center, quite a bit more complex than Spokane and needed more time for content development and more time for configuration.

So it was based on the needs of the medical center and the veterans there.

Mr. BANKS. Okay. Good

Dr. Kroupa, as well, somewhere always has to go first and Spokane is first. We have talked in previous hearings about the normal productivity hit when a new EHR is installed. 30 percent is typical. I know you are trying to mitigate that impact, but do you think going live in Spokane in March with partial functionality would make that productivity hit bigger or smaller?

Dr. KROUPA. I just spent a week in Spokane last week talking about this topic with them. I think we have a good handle and getting a better handle on all the different impacts that the functionality will have and just the basic productivity hit that any EHR is going to do.

Truthfully, I don't think that most of the challenges we are going to face are a problem because of the capability set. They are getting, you know, a lot of capability, many things are much of an upgrade from what they are currently getting in CPRS. And they are ready for those workarounds.

So I think the capability set part of that is really a minor component of the overall mitigation we need to do for productivity for any EHR implementation, particularly an IOC site where we are all learning as we go.

Mr. BANKS. So when is the final decision point for Spokane to go live in March?

Dr. KROUPA. Well, we will be making those decisions as we go through different milestones. Obviously, we have testing coming up. We will have training coming up. So we will be working with VHA and OIT, and within—

Mr. BANKS. But at what point—

Dr. KROUPA [continued]. —the program.

Mr. BANKS [continued]. —at what point is it all systems go, go live in March?

Dr. KROUPA. Well, I believe that we will be making that decision in March right as we make sure that everything is ready. But we will have milestones before that to look at that timeline, if we have to alter that.

Mr. BANKS. Okay. This next question is for Dr. Kroupa and Dr. Davies.

As you know, I am concerned about the staffing vacancies, physical infrastructure deficiencies and limited community care capacity that already exists in Spokane. EHRM did not create these problems, but the go live will make them more apparent, even under the best circumstances.

What is VHA's plan to remediate those conditions before the Cerner go live?

Dr. KROUPA. I can take that.

So, again, I spent last week in Spokane going through that in detail, working with their front line staff to understand their challenges, what they thought they needed. There is a plan being put together to figure out—to put together and describe the number of staff that they will need, what other kind of mitigation policies we can use in terms of Telehealth, bringing in providers from other sites, doing things remotely, distributing some of their work remotely as well.

So we are developing that comprehensive plan and there is active involvement of VHA and the visit and the facility in that plan.

Mr. BANKS. Anything else?

Dr. DAVIES. I would add that one thing we learned in MASS implementation was that it made the scheduler's job easier, and at one point our scheduler turnover had dropped quite a bit from the baseline. So we hope and expect that those improvements will bear out in the remainder of the implementation.

Mr. BANKS. Okay. Well, Dr. Davies, when staff visited Spokane last month, they requested the data on staffing vacancies and physical space deficiencies. The medical center compiled it and sent it up to the Office of Congressional Legislative Affairs. But we have yet to see it.

So I would like for you to provide that information by the end of the week, if that is at all possible.

With that I will yield back.

Ms. LEE. Thank you.

I will now recognize myself for 5 minutes.

Mr. Reinkemeyer, first of all, we are expecting to see some cost estimates in the next couple of weeks. What information or data would be necessary to show that the VA had conducted a proper analysis of how much the program will cost?

Mr. REINKEMEYER. Well, all of that should be outlined in their new program management review process. But I would expect to see the infrastructure costs, the system costs, the changed management costs, really the life cycle costs of the system.

And if they have put a thoughtful plan together on that and displayed that and made that visible for all to see, then you could certainly have a discussion about whether it is the right cost.

Ms. LEE. Thank you.

Would OIT have concerns about the reliance on future cost savings in this case?

Mr. REINKEMEYER. I would have to—

Ms. LEE. See it?

Mr. REINKEMEYER [continued]. —we would have to take a look. I mean, I think everybody at this table is well intentioned in trying to move it forward.

Ms. LEE. Yeah. Mr. Cussatt or Mr. Windom, our understanding is that the OEHRM is responsible for the hardware that is needed for the deployment of the EHRM. The issue of funding and planning for long term technology refresh cycle comes up every EHRM briefing.

We are told that this is OIT's responsibility. So how are—what is the plan to meet that responsibility?

Mr. WINDOM. Ma'am, I think based on the way the funding profile is, is that you have entrusted OEHRM to fund those related costs associated with EHRM efforts. I can tell you the partnership with OIT is imperative to reach our objectives. They have the contract vehicles in place in support of many of these commodity purchases that we need to make. So we have been, in fact, utilizing their subject matter expertise out in the field, their contracting vehicles to support getting things on contract in support of our timelines. That has been working well.

And so I would defer to Mr. Cussatt for any additional comments.

Mr. CUSSATT. Yeah. I would agree with Mr. Windom. We have a very close partnership to look at all of the sites that are coming up for deployment, determine where they are in the modernization that is needed to support the Cerner system.

We go ahead and pay for the things we already had planned in the course of our normal modernization, and then we work with OEHRM to determine the things that need to be accelerated and

done more quickly for that site. And then we work to cost that out through the OEHRM program.

Ms. LEE. So is it safe to say that you will be responsible for the likely refresh that is going to be needed at the facilities that go live with the CSS early on, but then won't get to the rest of the EHRM until the end of the deployment cycle?

Mr. CUSSATT. Yes, ma'am. We are responsible for the IT underpinnings and infrastructure for all of the sites for either CSS or Cerner to make sure they are ready for deployment.

Ms. LEE. Okay.

I want to move on a little bit to management and governance. And, Mr. Reinkemeyer, what key management concerns did you find after looking at the VSE and what recommendations did you make?

Mr. REINKEMEYER. So we made one recommendation and that was really to ensure proper oversight and that the project development process was followed.

As I mentioned earlier, there has been a number of processes that have been in place over the years and they all provide some value. It really comes down to leadership and ensuring that they are following, ensuring that the T's are crossed and the I's are dotted, ensure that there is a discipline process that protects, you know, the taxpayer's money and provides reasonably assurance that the system is going to be developed.

One of the concerns that we had with VSE—and as I pointed out, it is a very small project. So certainly it is not fair to maybe compare it to the CSS system. But there is such a constant shift in direction with VSE as I pointed out. For a while it was the highlight, then it shifted to MASS, then it went back to VSE and now it is ultimately with the Cerner scheduling.

I think that is what I would highlight.

Ms. LEE. Okay. In June you told, Mr. Windom, you told the Committee staff that OEHRM was only partially staffed. How many positions have you filled and how many are open?

Mr. WINDOM. Ma'am, we filled 102 positions since we last spoke.

Ms. LEE. Okay.

Mr. WINDOM. And we still have our primary goal of 265 to 285 as the outstanding goal. So we feel like we have about 150 plus more vacancies. But, again, I can't emphasize enough, we want to bring the right people into the portfolio, which we are doing, and with the right expertise. But we appreciate your continued support. As we wrap up, we think we are making substantial headway.

Ms. LEE. Great. Thank you.

I am finished. I would now recognize Ranking Member Banks.

Mr. BANKS. Thank you, Madam Chair.

Mr. Cussatt and Mr. Short, continuing on the subject of Spokane, I understand the data center is directly underneath the kitchen and leaks have become almost routine. The only way to solve it would be to relocate the data center or to relocate the kitchen. And until that happens all anyone can do is put a tarp over the servers.

Again, EHRM did not create this problem. What is the long term plan to solve it?

Mr. SHORT. Mr. Banks, VHA owns the facilities. They have the construction. It is one of the items that we laid out and Cerner also

called it out in the current state review, CSR, that they did. And VHA is in the process of doing contracting to resolve that.

For the record, we can come back and give you the plan that they have.

Mr. BANKS. All right. Anything else?

Mr. CUSSATT. Yeah. OIT is working very closely with VHA to look at all the data centers, the closets, make sure that their current state, if they can't be changed by the time of the rollout is within performance tolerance levels and can be managed. But it is our aim and intent to work with VHA to upgrade them for the long haul.

Mr. BANKS. Okay.

Mr. Short, a recent slide deck provided to the Committee indicates that the data interface for the Cerner scheduling system for the initial sites has always been "resolved." What does that mean?

Mr. SHORT. That was a tracking document for—we have several sets of interfaces we are tracking. One is for the EHR going live, one is for CSS going live. So the view you were looking at in that slide would be for the EHR going live.

So the resolve meaning on that slide was we don't need the integration for the Cerner scheduling to VistA for it to go live with EHR. We need it for CSS. Another slide would show you that we have a plan for that. We are going to replicate the integration that was done for Mass, with a couple of changes to it, the same interface engine.

So resolve means we don't need it for EERH to go live and we know what the plan is and design ins, and we have the interface control document for the planning for the scheduling.

Mr. BANKS. Okay.

Mr. Windom, one of your project metrics is a quote "version 1 story," meaning an activity that must be performed in order to deploy the EHR with initial capabilities. How many of those are currently blocked and how many are blocked because DoD and VA haven't made a decision?

Mr. WINDOM. Sir, I think the—your comments over the past hearings revolving around the importance of DoD and VA working together has created that synergy.

I can tell you we had 27 joint decisions that needed to be made approximately 2 and a half months ago, and we are sitting at a point where all but 8 have been made. So that progress is fantastic.

So this is just the challenge of integrating 2 major agencies with differing methodologies in many cases. I feel like we have been moving progressively in the right direction. I would also add because you made a comment about the FEHRM, the FEHRM has been involved in that process and facilitating those.

So I think the evolution that you wanted to see is happening. It never happens as fast as you would like. But I think it is happening and I think it is largely because of Subcommittees like this, sir.

Mr. BANKS. Thank you very much.

With that I yield back.

Ms. LEE. Thank you.

I would like to ask this for all the witnesses, and this is with respect to governance and accountability.

With regard to the implementation of the scheduling solution, what do each of you view the responsibility of OIT, OEHRM and VHA?

Mr. WINDOM. Ma'am, I believe that under the Dep. Sec. I report directly to the Dep. Sec. on behalf of matters as it pertains to OEHRM. Scheduling is clearly a parameter and an element of the contract we awarded to Cerner. We will be modifying the contract because the deployment of scheduling separately is a new scope item, but is a scope well within the capability set that presently exists in the contract.

I believe the accountable person is me. O and VHA are vital teammates. They are the ones who control the users, the infrastructure, the network, the things that we have to ride on and need to support our overall success. So that partnership is inseparable.

And so that is the way that we are moving forward in our strategies is OEHRM has the rose, if you will. But being able to tap into the resources of OIT and VHA are critical to our success, and I think those partnerships not only have evolved, but continue to evolve in support of our ultimate mission objective.

So that is how I would describe it, but I would defer to OIT and Mr. Cussatt if he had any additional comments.

Mr. CUSSATT. I certainly agree with everything Mr. Windom said. A few things we do in OIT to hold up our end of the team is we instituted; in light of the IG report we instituted a new PMR process for all of our programs where we have some rigor for reviewing those programs regularly.

We have a governance process that if there are any issues that pop up during the PMRs, it goes up to the governance process. And this is all overseen by our new quality, performance and risk office that houses our chief risk officer and our chief audit executive.

We have divested that office of any operational duties so that they are sort of our internal conscience so to speak to do some internal validation and verification and audit and make sure that everything stays on track. And they can inform the CIO and me as his deputy when things are off track, and the governance board.

And, lastly, I will say I see it as our responsibility and VA CIO's Office to build a very strong partnership with DoD CIO's office. I co-chair with my counterpart, the principal deputy in the DoD, Essye Miller, an IT steering committee. We are going to meet actually this afternoon where we have a forum to talk about interoperability issues. We want to break all barriers down.

So I see that as part of our responsibility to build that relationship.

Dr. DAVIES. Speaking for VHA, I would say that we represent the end users and the interests of the schedulers and the physicians and non-physician providers who are using this system. Our strong interest is making this right, to make sure that this works in the day to day workflow so that they can serve the veterans' needs every day.

We do, ma'am, as you may know, maybe 60 million appointments a year in VA. So this is right at the heart of our mission delivery.

In that vein, our office is organized in 10N operations and we have direct connections to the facility, network and facility leadership. And we are very interested in the organizational change of

management, in the training, in the preparation of the users for the go live date, and in the continual improvement of using the information afterwards to improve it.

So I see it as 2 steps. We need to get the information system in place. And these guys are going to do that, and we have a great team, you know, with working together with them.

Once that information system is placed, then we need to train the users, especially the mid-level managers, to help take the information, the new information that they now have, and use it to continually improve care for our veterans and the efficient operation of our system.

Ms. LEE. Thank you.

Dr. KROUPA. Well, I don't have too much to add because I agree with Mr. Windom. But I see myself as, you know, I am a clinician. I have been in VHA for over 30 years. So I strongly feel that we are the servant for VHA to bring this functionality to the frontline users and to veterans, including VBA in that as well.

So we have definitely—I see myself as a champion for the functional user, focused on this one mission so that they can provide care to veterans.

Ms. LEE. Thank you.

Mr. SHORT. Ma'am, thank you for the question.

I agree with what other people have said. I would also add that OEHRM has the overall end to end picture for the whole program for each modernization, working with all these other offices and with DoD to make sure that we provide the right level of service and care to the veteran and for the clinician, for VHA to maintain the facilities and improve the facilities.

So we put the EHR into the right facilities. We don't have a leaking data center. We have the right data center. We have the right facilities. And also to provide the staff for guidance, direction testing, planning and validation to improve that clinical care. And for OIT to continue to maintain the systems, continue to facilitate our work with the system so OEHRM and Cerner can modify the systems as necessary, and also to provide access to those systems, and to also, as Mr. Cussatt said, to really get that partnership with DoD for IT and cyber to make sure that we can move through quicker and faster.

Ms. LEE. Thank you.

Well, I would like to thank all the witnesses for your participation today, and I hope we can continue to work together as this Subcommittee continues its oversight of the technology modernization efforts.

Obviously, the EHRM project is a big concern and I don't need to tell you how important and complex it is as you deal with it on a day to day basis. But we are also looking at numerous projects across the VA, most importantly, as Dr. Davies said, to make sure we are providing the utmost care in a timely manner to our veterans which is obviously where the scheduling program comes in.

I think on my behalf, I mean, I think the biggest concern here is we had a—you know, looking at the history of IT roll outs in the VA and the fact that we had a scheduling pilot that got rolled out and was successful and achieved the goals, and then we are scrapping it obviously because it was included in the contract with

Cerner. As you eluded to, Mr. Windom, that, you know, this interoperability and the lack of complexity in terms of having another platform was a driving factor in making that decision.

I will caution that my biggest concern with the EHRM project is that you, all of you have the potential to really revolutionize electronic health records not just for the DoD and VA, but for all of health care providers across this country.

And then as, you know, we are tasked with looking at how we reduce health care costs across the country I think this project, if rolled out and done well, will be a vital determinant of that. And so when we look at making decisions such as scrapping what was already done that was successful and going with one provider, on developer. I have major concerns with that, that we are basically developing a monopoly.

And so I would like to see as we move forward in this what moves we are making to make sure that other vendors and other providers have access to this type of technology without having to make a contract with one provider moving forward. I am very concerned about that.

And, you know, right now my biggest concern is we are making these big decisions, yet we don't necessarily have a handle on the costs or the plans. And I know that is forthcoming. So we are looking forward to seeing that. We are looking forward to the OIG facilitating and moving forward because, clearly, the technology is there. It is obviously individual—you know, we have it in the management and the decision-making process is really what is going to determine the success of this program.

And, you know, I can't stress the complexity of this and I respect all the work that all of you do, and I continue to stress that we are working together to make sure that this is a success, most importantly for the veterans of this country.

So thank you all for your time and we will see you later.

Thanks.

All members have 5 legislative days to revise and extend their remarks and include extraneous material.

And the hearing is now adjourned.

Thank you.

[Whereupon, at 11:20 a.m., the Subcommittee was adjourned.]

A P P E N D I X

Prepared Statement of John H. Windom

Good morning Madam Chair Lee, Ranking Member Banks, and distinguished Members of the Subcommittee. Thank you for the opportunity to testify today in support of the Department of Veterans Affairs (VA) initiative to modernize clinical scheduling by accelerating implementation of the Cerner Scheduling Solution (CSS). I am accompanied today by Dominic Cussatt, Principal Deputy Assistant Secretary for the Office of Information and Technology, Dr. Laura Kroupa, Chief Medical Officer for the Office of Electronic Health Record Modernization (OEHRM), Mr. John Short, Chief Technology and Integration Officer for OEHRM, and Dr. Michael Davies, Senior Advisor to the Assistant Deputy Under Secretary for Health for Access, Veteran Health Administration (VHA).

I want to begin by thanking Congress, and specifically this Subcommittee, for your continued support and shared commitment to the success of the Electronic Health Record Modernization (EHRM) program. Because of your unwavering support, VA's mission of improving health care delivery to our Nation's Veterans and those who care for them while being a responsible steward of taxpayer dollars continues.

Background

VA currently manages clinical scheduling using the Veterans Health Information Systems and Technology Architecture (VistA). According to a VHA requested analysis, VistA scheduling is clinic-based, so the system has one profile for each clinic in which a specific provider works. Given that providers often work in five or more clinics, disparate profiles prevent schedulers from viewing the provider's whole utilization picture and efficiently deploying VA resources. Additionally, its outdated user interface and manual process steps create inefficiencies. VistA does not provide VA the requisite functionality, usability, and overarching business benefits.

Therefore, in 2018, VA implemented the Medical Appointment Scheduling System (MASS), a resource-based, commercial off-the-shelf scheduling solution to replace the clinic-based VistA scheduling system. The MASS pilot occurred at the Chalmers P. Wylie Ambulatory Care Center in Columbus, Ohio, and showed that the resource-based solution's intuitive user interface simplified scheduling processes, increased scheduler productivity, and tracked provider utilization to ensure efficient use of VA resources. Additionally, MASS standardized reporting processes, increased visibility of available appointments, and added greater functionality to support timely access to care.

VA's MASS contract agreement expires in June 2020. VA will use its EHRM Indefinite Delivery/Indefinite Quantity (ID/IQ) contract with Cerner to accelerate its CSS implementation, since the contract already includes licenses to implement the CSS across VA's enterprise. To keep capabilities in the hands of clinicians and standardize scheduling processes across the enterprise, VA will leverage the architecture and lessons learned from the MASS solution. VA is collaborating with key stakeholders from the MASS implementation and Cerner teams to ensure these lessons learned are incorporated in VA's new scheduling initiative.

Like MASS, CSS is a resource-based scheduling solution that will increase scheduling efficiency, provider productivity, and ensure Veterans' timely access to care. The Chalmers P. Wylie Ambulatory Care Center will serve as the pilot site for CSS, with Go-Live scheduled for April 2020. The Columbus facility was specifically chosen due to the site's expiring contract. The site assessment has been conducted and is under staff review. Thereafter, the Louis Stokes VA Medical Center in Cleveland, Ohio, will serve as a larger pilot site for CSS.

After this pilot, VA will replace the VistA scheduling system with CSS on an accelerated timeline to facilitate the delivery of high-quality health care to our Nation's Veterans. VA believes there is a return on investment in productivity and effi-

ciency by accelerating the scheduling component from the EHRM effort. This implementation plan will provide resource-based scheduling to VA facilities five years in advance of full electronic health record (EHR) capabilities and allow the VA to conduct current state reviews on the state of the infrastructure to inform future year funding requests. Veterans and end-users will benefit from an accelerated CSS implementation schedule by:

- Receiving a resourced-based scheduling solution that is significantly more dynamic than the current clinic-based VistA system, as CSS will provide enhanced views, reporting ability, and utilization tracking;
- Bringing state-of-the-market EHR capabilities across VA's enterprise sooner; and
- Building partnerships and leveraging training and change management processes to aid in the full deployment of EHRM capabilities.

Implementation Planning and Strategy

VA established a dedicated pillar within OEHRM to provide oversight for CSS implementation. Government personnel and contractor staff will support the scheduling modernization effort by providing expertise based off the full EHRM effort in areas including deployment and change management. The pillar will collaborate with end-users, VHA, (OIT), Veterans Benefits Administration, Office of Technical and Integration partners, and Cerner CSS implementation personnel to support the transition to CSS.

Understanding that many transformations fail due to lack of leadership buy-in or cultural resistance to change, VA and Cerner staff will deliver on-site training in advance of CSS Go-Live, ensuring end-user readiness and continuity of care for our Veterans. After the Columbus CSS pilot, VA will refine its training and implementation methodologies in support of anticipated full enterprise implementation by 2025. Keeping in mind that front-line staff have important work to do on behalf of our Nation's Veterans, CSS training will be conducted on flexible schedules throughout the week, including weekends.

Site Readiness Activities

VA will proactively engage facilities across the enterprise to prepare each site for the scheduling modernization effort. VA's implementation process includes meetings with VA facility leadership and staff, change management strategy, communications to end-users, site assessments, configuration, testing, training, and Go-Live support at each site. VA will look to internal and Cerner expertise to identify requirements and transition sites to the new CSS platform.

VA has awarded a task order (TO) for pilot site survey activities to gather the requirements for implementing CSS; VA will continue using the ID/IQ contract structure, awarding firm-fixed price TOs as requirements are validated. The Columbus and Cleveland pilots will enable VA to better understand infrastructure requirements. VA will integrate lessons learned and efficiencies gained from the pilots and EHRM's efforts initial operating capability into future implementations.

Funding Profile

VA plans to request bringing forward EHRM funds from the out-years to support an accelerated CSS implementation. Planned expenditures will support infrastructure modernization, accelerated training, and help desk expansion services. VA is building a funding profile for accelerated CSS implementation in collaboration with stakeholders and will solidify the funding required to implement CSS at other facilities based on factors identified during site surveys, including facility size, complexity of legacy systems, and staffing requirements. After the pilots in Columbus and Cleveland, Ohio, are complete, VA will have a better understanding of the funding required to deploy CSS across the enterprise.

VistA Scheduling Enhancements

In May 2014, VA developed VistA Scheduling Enhancements (VSE) as an interim scheduling solution to fulfill patient scheduling needs until a commercial scheduling solution could be implemented. VSE acts as a bridge from legacy VistA to CSS, improving appointment reliability and scheduling workflow functions until the CSS platform is fully in place.

In August 2019, VA's Office of Inspector General assessed VA's management of the VSE project and recommended that VA improve project management oversight so that project requirements are adequately defined and supported before under-

taking information technology (IT) projects. VA concurs with this recommendation and VA's OIT is implementing a new program management review (PMR) process that will independently ensure IT projects are healthy and deliver the desired outcomes. With the signing and issuance of a policy memorandum, dated July 15, 2019, the new PMR process is now in effect. With this process in place, VSE will continue to help VA providers achieve better continuity of care for Veterans until their permanent scheduling solution arrives.

Conclusion

EHRM's program efforts will enable VA to provide the high-quality health care and benefits that our Nation's Veterans deserve, and CSS is a vital component of the care delivery experience. VA leadership is committed to successful implementation of CSS and believes that this effort will improve our delivery of quality health care to Veterans. VA will continue to keep Congress informed of milestones as they occur. Madam Chair, Ranking Member, and Members of the Subcommittee, thank you for the opportunity to testify before the Subcommittee today to discuss one of VA's top priorities. I am happy to respond to any questions that you may have.

Prepared Statement of Larry Reinkemeyer

Chairwoman Lee, Ranking Member Banks, and members of the Subcommittee, thank you for the opportunity to discuss the Office of Inspector General's (OIG's) oversight of the Department of Veterans Affairs medical scheduling enhancement efforts. The OIG is committed to serving veterans and the public by conducting oversight of VA programs and operations through independent audits, inspections, reviews, and investigations. Ensuring veterans have timely access to quality care is a top priority and can only be accomplished through accurate and efficient scheduling systems.

In August 2019, the OIG published the report, VA's Implementation of the Veterans Information Systems and Technology Architecture Scheduling Enhancement Project Near Completion.[1] This audit detailed how the Office of Information and Technology (OIT) and the Veterans Health Administration (VHA) managed the implementation of VA's Veterans Information Systems and Technology Architecture (VistA) Scheduling Enhancement (VSE) project. The OIG determined that the VSE project management team-which included OIT program and project managers and VHA project managers-did not effectively manage the project to ensure scheduling enhancements were adequately developed and met users' needs.

BACKGROUND

VistA was designed as an electronic health record system with a scheduling component. Since the 1980s, VHA has relied on the VistA system to make and track patient medical appointments. The technology underlying this legacy scheduling system that is used by VA medical facilities became cumbersome, outdated, and unable to handle the complexities and volume of VHA scheduling requirements as they developed and expanded over time. The scheduling system was also not designed to integrate mobile, web, and telehealth scheduling. In fiscal year (FY) 2000, VHA determined that VistA should be replaced and launched the Replacement Scheduling Application (RSA) project to look for a commercial off-the-shelf (COTS) software program as a solution. In April 2002, VA determined that no COTS software developers were willing to make their scheduling application compatible with VA's systems. The VHA chief information officer at that time decided to significantly change the scope of the project from a COTS solution to an in-house build of the scheduling application. In March 2009, a memo from the under secretary for health to the acting assistant secretary for information and technology stated that the RSA project had not produced a single scheduling capability that VA could use, nor was there an expectation that one would be made available. In May 2010, the Government Accountability Office reported that VA spent an estimated $127 million over nine years on its outpatient scheduling system project and found that it did not implement any of the planned system's capabilities and was essentially starting over.[2]

Development of VSE

[1] VA's Implementation of the Veterans Information Systems and Technology Architecture Scheduling Enhancement Project Near Completion, August 20, 2019.

[2] Government Accountability Office, Management Improvements Are Essential to VA's Second Effort to Replace Its Outpatient Scheduling System, GAO–10–579, May 27, 2010.

In 2011, after analyzing alternatives, VA decided to pursue another COTS solution that led to the development of the Medical Appointment Scheduling System (MASS). Simultaneously, VA was working on its strategic goal of mending its scheduling system under VistA Evolution, a joint VHA and OIT program designed to improve the efficiency and quality of veterans' health care. In 2014, VHA and OIT realized that small enhancements to the VistA scheduling interface could not only be made to meet its needs, but also could be done at a much lower cost and with faster implementation than acquiring a new system. This joint effort progressed into the in-house development of the VSE project, as a temporary solution while MASS was being pursued.

In May 2014, the VSE project was launched and in July 2014 VA awarded a firm-fixed-price contract to contractor Hewlett Packard Enterprise Services LLC to design, develop, test, and support the release and implementation of VSE with a cost of $4.1 million and a completion date of November 2015. Ultimately, the cost increased to $6.8 million due to additional software development, enhancements, and a post-warranty support extension.

VSE was expected to update VA's legacy system with a modern graphical user interface that resembles what a user might see on a Microsoft Outlook calendar, while not changing any of the functionality of the VistA scheduling system. Specifically, VSE would include enhancements such as an aggregated view of clinic profile scheduling grids, a single queue or list for appointment requests, resource management reporting, and high priority or critical patches to the VistA scheduling system.[3] VSE was anticipated to reduce the time schedulers took to enter new appointments by making it easier to see care provider availability and appointment details.

Development of MASS

In November 2014, VA issued a request for proposals for the new longer-term scheduling system, MASS, to replace the VistA scheduling system. According to a VA fact sheet, MASS would enable proactive, resource-management-based scheduling, which considers the availability of staff, facilities, and equipment while also providing improved transparency, and consistent implementation of scheduling policies and directives. In August 2015, VA awarded an indefinite-delivery, indefinite quantity contract for MASS to Systems Made Simple Inc. at a maximum cost of about $624 million over a seven-year period. During an April 2016 congressional hearing, VA officials at the time stated that MASS was put on hold while VSE was being developed. However, in January 2017, the deputy secretary at that time directed that MASS pilot activities resume at the Boise VA Medical Center (VAMC) in Idaho, with the requirement that MASS would be used for scheduling veteran appointments at the center by July 2018. In April 2018, MASS had been successfully deployed at the Chalmers P. Wylie Ambulatory Care Center in Columbus, Ohio, ahead of schedule.

In December 2018, VA reported to Congress on medical appointment scheduling that the new Cerner contract includes an appointment scheduling system component that will be rolled out across the VA in conjunction with the electronic health records system over a 10-year period. Cerner scheduling solutions are being coordinated by VA's Office of Electronic Health Record Management. Due to concerns about the length of implementation time for the Cerner electronic health records system across VA, the Department intends to separate the scheduling component within the Cerner contract and implement it on a faster track to benefit all regions of the country. To mitigate the risks, VA will not begin the scheduling component deployments until after the full electronic health records system implementation is achieved at two sites in the VA Northwest Health Network.[4] The first standalone scheduling component is planned for deployment in 2020 and the last deployment is planned in 2023, according to the December 2018 report. However, with the decision for VA to go to a Cerner-based solution, the MASS project will no longer be deployed to other sites. The Cerner scheduling standalone component will replace VSE, MASS, and the VistA scheduling system.

INADEQUATE VSE PROJECT MANAGEMENT OF DEPLOYMENT AND IMPLEMENTATION

[3] VHA requires an aggregated view of clinic profile scheduling grids to allow the user to view the resource's availability collectively and decrease the time it takes to match an available resource with the patient's request and improve the appointment scheduling process.

[4] The VA Northwest Health Network (Veterans Integrated Service Network 20) facilities are the initial operating capability sites for implementation of the new electronic health records system.

The OIG determined the VSE project team did not adequately manage the development of the scheduling system due to deficient requirements, insufficient testing and staff turnover. OIT approved the national release and deployment of a version of VSE in April 2017. VSE suffered delays from its original contract that ended in July 2016. In August 2016, the deputy secretary at that time implemented a remediation plan for VSE to address usability issues that further delayed implementation. Delays in deployment persisted until the final contract modification ended in September 2017. As of August 2018, VA had deployed the VSE to 157 of 160 locations according to a project analyst for OIT's Enterprise Portfolio Management Division.[5]

VSE Requirements Were Inadequate

The audit team was told that VHA used high-level scheduling blueprints to create simple requirements for VSE, according to VHA's senior medical advisor for the Office of Veterans Access to Care, who was the project's business sponsor.[6] The senior medical advisor also indicated that VA wanted a quick and simple "stopgap" or "backup" plan to MASS. The business sponsor also stated that MASS was the focus of most of the team and VSE was a low priority. According to the business sponsor, the VSE was supposed to address four enhancements:

1.An aggregated view of clinic profile scheduling grids

2.A single queue for medical appointment requests

3.Resource management reporting dashboard

4.High priority/critical patches for VistA scheduling

The simple requirements were provided to the contractor and the business sponsor validated and approved the requirements for the high priority/critical patches. However, the OIG did not receive approval documentation for the other enhancements. Thus, the audit team concluded that the simple requirements were inadequate and may have led to an incomplete analysis by the contractor.

One year after the initial operating capability testing, VHA conducted a study of VSE to determine if usability issues existed, to provide suggested changes to the user interface, and to help determine future plans for the product.[7] The usability study found functional limitations, such as schedulers needing to toggle back and forth between VistA, VSE, and the computerized patient record system to create an appointment, and patient data was not being updated in every location within VSE. The study concluded that VSE was not in a deployable state, with bugs and defects that needed to be addressed. This increased the amount of time schedulers needed to set veteran's appointments and it was determined that VSE would be unable to solve VA's problems related to tracking resources and availability. According to an independent study required by the Veterans Access, Choice, and Accountability Act of 2014, examples of resources include support staff, exam rooms, and equipment availability.[8]

Issues Identified in Initial Operating Capability Testing Delayed VSE Implementation

The July 2014 contract for VSE included an optional task for contractor support of initial operational capability testing, which was exercised by VHA in August 2014. The task required the contractor to execute an implementation plan, prepare for contingencies during the release of software, and provide support of software deployment. In June 2015, VSE was installed for initial operational capability testing at the Charles George VA Medical Center in Asheville, North Carolina, and at several of its clinics later in January 2016. According to VHA's Human Factors Engineering (HFE) team, testing issues were reported prior to its usability study, such

[5] According to a project analyst for OIT's Enterprise Portfolio Management Division, VHA granted two permanent implementation waivers for the VA medical centers in Columbus (using MASS) and Indianapolis (implementing another commercial scheduling system about 15 years ago). Also, the San Diego VA Medical Center remains partially implemented, with an approved VHA waiver, but plans to fully implement VSE "as is" by the end of FY 2019.

[6] The business sponsor, or customer/user, is responsible for determining requirements, monitoring and approving changes to those requirements, and accepting project increment deliverables. The business sponsor is also required to validate and approve all project requirements.

[7] Initial operational capability testing is conducted in a cycle within a project schedule for complex projects. These tests assess system features and functionality.

[8] P. L. No. 113–146 (August 7, 2014); McKinsey & Company Inc. A Product of the CMS Alliance to Modernize Healthcare Federally Funded Research and Development Center Centers for Medicare & Medicaid Services. Prepared for VA.

as scheduling appointments through VSE took twice as long as using the legacy system.[9] Despite these identified problems, the audit team found no information that any efforts were made by VHA or the contractor to coordinate with the Asheville medical center to develop a resolution plan, as required by the contract. In July 2016, the Asheville VA Medical Center stopped testing VSE due to the identified problems.

In July 2016, the HFE team issued a report identifying 32 deficiencies associated with usability, software stability, limited functionality, technology, training, and patient safety issues. Twenty-six were related to functionality and six to training. Three of the 26 deficiencies were related to functions that were not delivered by the contractor as required. Twenty-three functionality deficiencies should have been considered in the original contract requirements but were not. Some identified deficiencies included new appointments for veterans that were not replicated across the interface grids and comments placed in VSE were not being captured. In addition, usability deficiencies included limitations on canceling and changing appointments while software instability plagued the overall deployment of the VSE project. Had the requirements been analyzed adequately, the OIG determined there could have been a contract with better defined requirements for VSE from the start, minimizing the types of problems identified in the HFE usability study and those that schedulers reported plagued the system. In August 2016, the deputy secretary at that time issued a memo discussing the remediation plan for VSE and the need to address the HFE-identified deficiencies. The remediation plan required the VSE development team to standardize the current version of VSE at five VA medical centers: Asheville, North Carolina; Salt Lake City, Utah; Cleveland, Ohio; Hudson Valley, New York; and Chillicothe, Ohio. The plan also required that the team fixed identified issues in VSE and deliver up to two additional versions within six months. Remediation efforts created additional development work, which further delayed implementation of VSE, and still did not address all deficiencies.

Project Staff Turnover May Have Affected Implementation

OIT and VHA did not have continuity in its management of the VSE project. During the development of VSE from 2014 to 2017, key managers and VSE project officials changed frequently. OIT's program manager changed four times between May 2014 and May 2017. OIT's project manager, who was also responsible for contracting officer's representative duties, changed three times before being turned over to a VHA project manager within the same period. Furthermore, the chief information strategy officer, who was responsible for overseeing the remediation period and ensuring successful coordination between OIT and VHA during the critical redevelopment period, release, and implementation of VSE, left VA and was replaced in November 2016. The audit team determined the frequent turnover in these key management positions could have impacted OIT's and VHA's ability to complete the VSE project in a timely manner. The loss of project and program knowledge may have delayed the development and implementation of VSE. The audit team also found that VHA encountered difficulty in staffing other positions critical to the VSE project. According to OIT and VHA oversight briefings, personnel needed for the project included business analysts, scrum masters, technical leads, testing managers, and configuration managers.[10] VA's solution to these staffing concerns was to use contract employees and resources from the MITRE Corporation.[11]

VSE Implementation Is Almost Complete

Delays in deployment began in July 2016 when all enhancements should have been completed, and lasted until the final contract modification ended in September 2017. According to the VHA project manager, OIT approved the national release and deployment of a version of VSE in April 2017. In May 2017, VSE project manager told the audit team that no future developments were scheduled, and they would be only focused on the sustainment of VSE. Therefore, the 23 additional functionality requirements found by the HFE usability study were not addressed. Starting in December 2017, any new requirements would be completed under a new project called Sustainment of VSE. In February 2018, the VSE project manager told the audit team the three original requirements from the initial contract were com-

[9] The HFE is a VHA office that conducts reviews of software to determine deficiencies and areas of improvement from the aspect of the system user.

[10] A scrum master is the facilitator for an agile development team. Scrum is a methodology that allows a team to self-organize and make changes quickly, in accordance with agile principles.

[11] The MITRE Corporation is a not-for-profit company that operates multiple federally funded research and development centers.

pleted as of December 2017. However, the manager did not address the 23 outstanding functionality issues identified by the HFE usability study.

Recommendation

The OIG made one recommendation that the VA assistant secretary for information and technology and chief information officer should enforce current required project management processes with improved oversight. This should be executed to ensure project planning requirements are adequately defined and supported before starting information technology projects. At the time the OIG report was published, the VA assistant secretary for information and technology and chief information officer concurred with the recommendation and requested closure, as it has implemented a new program management review process through a policy memorandum signed on July 15, 2019. The program management review process is designed to ensure information technology programs and projects are delivered and sustain the intended outcomes. This memorandum has been distributed to executive leadership team correspondence leads. OIT's Office of Quality, Performance, and Risk has begun its assessment of information technology projects through the use of lightweight independent technical assessments. The OIG will monitor OIT's progress and follow up on the implementation of the policy memorandum to ensure it addresses the intent of the recommendation.

CONCLUSION

Patient scheduling is critical to providing veterans with timely access to medical care. The need to update the scheduling component of VistA is instrumental to VA's efforts to achieve that goal. Although VSE is a relatively small program and represented a short-term fix, it only changed the look of screens. This seemingly small change was expected to significantly reduce the time it took schedulers to schedule appointments, however it failed to deliver on that promise and it cost over $6 million. This is another example of the struggles VA has in developing and managing information technology projects due to inadequate requirements, insufficient testing, and staff turnover. Having an effective program and project management structure in place is essential to its information technology efforts.

Chairwoman Lee, Ranking Member Banks and members of the Subcommittee, this concludes my statement. I would be happy to answer any questions.