VA ELECTRONIC HEALTH RECORD MODERNIZATION: THE BEGINNING OF THE BEGINNING

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BEFORE THE

COMMITTEE ON VETERANS' AFFAIRS
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Tuesday, June 26, 2018

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

The Committees met, pursuant to notice, at 10:00 a.m., in Room 334, Cannon House Office Building, Hon. David R. Roe presiding.

Present: Representatives Roe, Bilirakis, Coffman, Bost, Poliquin, Dunn, Arrington, Higgins, Bergman, Banks, Walz, Takano, Brownley, Kuster, O'Rourke, Rice, Correa, Lamb, Esty, and Peters.

OPENING STATEMENT OF DAVID P. ROE, CHAIRMAN

The CHAIRMAN. The Committee will come to order. And before we get started today, I want to thank the Committee Members for all the hard work they did on the Blue Water Navy. This has been a passion of this Committee and mine and Mr. Walz for literally the whole time I have been in the Congress. And this Committee delivered, by voice vote and then yesterday, I think we can say we made our case for a 382-to-zero, finally this wrong is being righted. And I want to personally thank every Member of this Committee for the work you did, the dedication on both sides of the aisle.

So, from me to you, thank you.

[Applause.]

The CHAIRMAN. Thank you all for being here today to discuss VA's Electronic Health Record Modernization Program. Much has been said and written about the program since June 1st of last year when former Secretary Shulkin announced his decision to commence negotiations with Cerner; opinions have been formed and conclusions have been drawn. The reality is, even with the contract awarded and work underway, we are at the beginning of the beginning. We all know the broad strokes that led to the EHR modernization. The VA IT budget is consumed by operations and maintenance costs. VA's Health Information System, VistA, is functional, but increasingly complicated, while the EHR industry continues to evolve. Also, it is well past time for VA and DoD to achieve seamless interoperability, because servicemembers and veterans deserve a lifetime medical record. I have heard Mr. Walz say that for 10 years.

VA leaders were guarded in how much they would discuss during the negotiations. To some extent, that is understandable, but it is time to delve into the details. Fifteen point eight billion dollars

over 10 years, including $10 billion to Cerner, is a staggering number for an enormous government agency. That is $15,800 million when you put it in terms like that. I don't know about where you are from, but where I am from, that is a lot of money. However, EHR software is only a relatively small part of the overall price tag. What exactly does all that money buy?

Everyone here today knows the adage: if you have seen one VA hospital, you have seen one VA hospital. Part of the reason for that is for 35 years VHA has had a culture of creating software to fit any process and a technology platform, VistA, that facilitated it. There is much to be said for local authority in health care, I agree with that, but it seems to have gotten out of control and made the IT landscape ungovernable.

EHR modernization is not just a technology project, it will have a major impact on the way VHA operates, that means clinical and administrative workflows. It also reshapes the culture, as VistA has. However, if imposed on clinicians from the top down, the culture will reject it and no amount of technological savvy will be able to save it.

If we were creating a Veterans Health Care System from scratch, implementing an EHR would be relatively easy, but that is not the reality. Transitioning away from VistA is the most difficult aspect of the EHR modernization. VHA and VistA have built up around each other for decades. Amazingly, even after all these years, the Department does not seem to have a complete technical understanding of where VistA begins and ends. It is not an oversimplification to say the EHR modernization team may still be figuring out what VistA is up and when until the day they turn it off, if ever.

The scale is daunting, and the ambition is impressive, that is evident. I am interested in the benefit at the end of the 10 years to a veteran and to the clinician. The lifetime health record has to be worth the potential disruption. The ease of use, the new analytics in the EHR have to be worth the learning curve. Those things are difficult to quantify, but if the equation does not balance it will be abundantly clear as soon as the system is turned on in the first medical center.

I believe VA has been realistic about the level of resources needed to manage the EHR modernization and by every indication the EHRM Program Executive Office is building a good structure to do that, but they will need a great deal of help. The program cannot be seen as just the responsibility of an office in Washington. VA senior leaders, VHAs throughout the country and Office of Information and Technology, and every other corner of the Department must be invested in its success.

I especially appreciate all our witnesses agreeing to testify today. It is a large and impressive group on two panels, including some new faces for the Committee. You have all demonstrated an interest in the EHR Modernization success.

My colleagues on the Committee and I are committed to doing our part, that is why Ranking Member Walz and I have decided to create a new Subcommittee on Technology Modernization, to focus on oversight of the EHR Modernization Program, as well as VA's other enterprise modernization projects and programs. The

Subcommittee will allow a small group, three to five people, of Committee Members to focus intensively on these issues and strengthen the work the staff has already been doing. The EHR Modernization is a big bet on the future of VA and we simply must make sure it succeeds. More details will be available as we constitute the Subcommittee in the coming weeks.

I have been through this process from paper to electronic, it is not easy; going from electronic to electronic I feel is going to be even harder. I think the technology is going to be difficult and we have to be patient, and we certainly have to start at the supply person who is working in the ER supplying things, from the nurses who are spending way too much time looking at a computer screen and not at patients, and to doctors who are doing exactly the same thing. If it doesn't free up our clinicians and our supply people and our other people for more time with our patients, then we have failed.

So, with that, I yield to Ranking Member Walz for his statement.

OPENING STATEMENT OF TIM WALZ, RANKING MEMBER

Mr. WALZ. Well, thank you, Chairman. And again, I want to thank each and every one of you and your leadership on Blue Water Navy. You set out to do and, as everything you have done, you accomplished it, and I am grateful for that and so are many of our warriors.

The Chairman is right, 12 years ago in the first Committee here I remember saying that I hope I would be here long enough to see the implementation and a movement towards electronic health record, a joint electronic health record with DoD. And having an understanding that that is far more than a database, that is a diagnostic tool and everything else that goes with it. No one knows better than the Chairman on the complexities of this.

To get this done right is going to take transparency and oversight; the creation of this Subcommittee is a great first step. If I have learned nothing in those 12 years of being here that especially when it comes to everything but the VA in particular, and whether it is Denver, Phoenix, or projects that have worked wonderfully in moving forward like Omaha, leadership will make or break this project. So will the oversight, which is why I enthusiastically support the creation of this new Subcommittee overseeing a $16 billion, decades-long process.

There are going to need to be eyes on this all the way and every one of us up here, we own this now, we own this. We can complain about Denver, we can try and get fixes, we get to start fresh. And I would own that, and I said I think we should take the responsibility that everything that goes wrong with this now or goes right should be the responsibility of this Committee to take a look at it and that is what the Chairman is putting in place. But to do that, we need to have the capacity, and that means the GAO and the IG must be given the access they need to independently oversee progress on implementation.

GAO should be in attendance at every single governing board meeting; GAO must have direct and frequent access to VA, Cerner, and program management support contractors. I want the GAO to review quarterly progress reports. IG must have access to these

documents and information it needs to regularly monitor implementation and be ready to follow up, audit, and investigate when significant issues arise.

We are going to have to partner in this. So today at 9:01, I received the documentation that talks about the establishment of the Office of Electronic Health Records Modernization. No communication with us before this, nothing there. You sent this to us electronically and on the second page, Mr. O'Rourke, it has your signature with attachment, no attachment was there. It is Electronic Health Records Management, you can't make this stuff up. We get an improper electronic transfer of information setting up the office. This is why there needs to be oversight.

And I am going to have questions as we go through. Where is Mr. Sandoval today? Where is the Chief Information Officer? Where is the person that is going to ultimately or should be ultimately responsible for this?

It is important our watchdogs are empowered to effectively hold VA accountable to veterans and taxpayers. This Committee has done that. We have held people accountable, we have protected whistleblowers, and we have uncovered abuses that hurt veterans. That only happened because the IG and the GAO were there.

It is not up to the VA Secretary or Acting Secretary to decide when an IG investigation occurs. You do know, Mr. O'Rourke, you have no authority to remove an IG, none; statute does, you do not have that authority. When something occurs, IG needs to access documents and records. It is not up to you to determine GAO's level of access. I raise this issue because VA OIG has yet to be granted access to the Office of Whistleblower Accountability and Protection database. Mr. O'Rourke said that organization is accountable to him and loosely tethered to him, that is not the case. They are true through your budget, but not for the authority. What is true is, you are not loosely tethered to this Committee, you are constitutionally tied to this Committee and the oversight that will be provided from this Committee. I don't want to hear reports a year from now, IG are being denied access to documents relating to electronic health record modernization. VA stonewalling must not be tolerated, it cannot be tolerated by any administration. It happened where we had it last time and we needed to subpoena documents to get that from the administration to find out what was happening in Phoenix. Now we have the IG clearly asking for these things and being denied those things.

So today I am going to want assurances that the IG will be granted access to the Whistleblower Protection Program, the IG and the GAO will be granted ready access to oversee electronic health record modernization. Capable and good leaders' welcome transparency and independent oversight, capable and good leaders do not threaten the independence of the IG. Capable and good leaders welcome GAO's involvement in every aspect of this project because the outcome is a product that delivers and improves care for our veterans, that is what all of us want. We cannot have a bureaucracy clogging that up, we cannot have a bureaucracy that will not let independent eyes see that, we cannot let a bureaucracy not be accountable to the elected officials that sit here who are responsible for those veterans.

So I find it deeply concerning Executive in Charge of the Office of Information Technology Mr. Sandoval is not testifying today, since the Office of Information Technology is responsible for EHR's successful implementation. We are kicking off a glorious day, we are at the beginning of the beginning, and the person responsible is not here, the first transmission we get is incomplete, the ability to get documentation with the IG who is going to have to be there every step of the way is asking us to step in and get them information that is not being willingly given to them. That is not an auspicious start.

Governance and leadership, including active engagement of senior officials with stakeholders and supportive senior department executives are critical. We don't have leaders in place to participate in the project's government or set the strategy for this project. Who is meeting with the stakeholders? Where is the support from senior executive departments? We don't have governance because critical leadership positions are unfilled.

I have seen too many VA projects fail because of lack of leadership. Every one of you Members of Congress own this now. If they don't do this, it is on each of us.

Last month, media outlets reported Cerner failed to effectively implement their EHR at multiple DoD facilities, citing a botched rollout that put patients' lives at risk and lacked operational effectiveness. I find the details of these reports disturbing and unacceptable. The root cause must be identified and remedied. VA cannot fail veterans again. VA and the White House must act now to remedy the deficiencies so that we have qualified leaders in place before the project implementation begins this fall. There is too much at stake, veterans have been waiting too long for this seamless coordinated care between DoD, VA, and private providers.

I want to thank the Chairman. He understands this, that is what this Subcommittee is going to do, and you can rest assured they will carry out their responsibility.

I yield back.

The CHAIRMAN. I thank the gentleman for yielding. And just for the record, we did not invite the Chief Information Officer, Mr. Sandoval, and VA did not offer him to be here. And I would like to associate with your remarks, I agree with that.

On the panel we have Acting Secretary of Veterans Affairs, Mr. Peter O'Rourke. He is accompanied by leaders of the EHRM Program Executive Office: Mr. John Windom, welcome, the Program Executive Officer; Mr. John Short, the Chief Technology Officer; Dr. Ash Zenooz, the Chief Medical Officer.

On the panel we also welcome Vice Admiral Bono, the Director of the Defense Health Agency. Welcome, Admiral.

I ask the witnesses from both panels we hear from today to please stand and raise your right hand.

[Witnesses Sworn.]

The CHAIRMAN. Thank you, and you may be seated.

Let the record reflect that all the witnesses have answered in the affirmative.

Acting Secretary O'Rourke, you are now recognized for 5 minutes.

STATEMENT OF PETER O'ROURKE

Secretary O'ROURKE. Thank you, Chairman.

Good morning, Chairman Roe, Ranking Member Walz, and Members of the Committee. With me from VA are Mr. John Windom, Dr. Ashwini Zenooz, and Mr. John Short, respectively the Program Executive Officer, Chief Medical Officer, and Chief Technology Officer for VA's Electronic Health Record Modernization. Thank you for inviting us to testify.

Let me acknowledge as well Vice Admiral Raquel Bono, Director of the Defense Health Agency, with us this morning.

In just the past 18 months, five major Acts of Congress have benefitted veterans and VA: The Veterans Accountability and Whistleblower Protection Act, the Veterans Choice and Quality Employment Act, the Forever GI Bill, the VA Appeals Improvement and Modernization Act, and, most recently, the VA MISSION Act. To find another period of such significant change, we would have to go back to Omar Bradley's days.

Yet another significant step forward is Electronic Health Record Modernization. For transitioning servicemembers and veterans, it will improve care coordination and delivery. It will provide clinicians the data and tools they need to support patient safety, and veteran data will reside in a single hosting site, using a common system that enables health information sharing. So we deeply appreciate your leadership and bipartisan support.

Achieving full operating capability across VA with the new EHR is a sizable task; it will take several years to complete. And we recognize and fully appreciate the challenges the Defense Department has faced in its own EHR implementation experience, so we have designed a proactive and preemptive contract management strategy. We are working closely with DoD, we are listening to advice from respected leaders in health care, and we are fully engaged with the Cerner Corporation regarding all critical activities: establishing governance boards, conducting current state reviews, and optimizing the deployment strategy. We intend to anticipate challenges and take full advantage of lessons learned to mitigate risk in VA's implementation, and our strategy will adapt as we learn, and technology evolves.

VA's EHR modernization will be a flexible, incremental process, welcoming course corrections as we progress. Effective program management and oversight will be critical, critical to cost adherence, to time lines, to performance quality objectives, and to effectively implement risk-mitigation strategies. So we are committed to a PMO properly staffed with exactly the right functional, technical, and advisory subject matter expertise.

To facilitate decision making and risk adjudication, we have designed an interim governance structure of five functional, technical, and programmatic teams. They are the EHR Steering Committee, the EHR Governance Integration Board, the Functional Governance Board, the Technical Governance Board, and the Legacy EHRM Pivot Work Group.

We will continue to refine this structure and our processes over the next few months to further enhance performance and outcomes. In July, August, and September, VA will assess, validate initial operating capabilities in Medical Centers in Spokane, Seattle, and

American Lake, Washington, as previously negotiated. In October, we will begin EHR deployment to these three sites with a full capability goal of March of 2020.

VistA and related clinical systems will continue serving veterans until the EHR is fully capable.

EHR modernization is a deep change; it is a technical and a cultural challenge, and the human component is central success. So we will fully engage end users early to train facilities staff and promote successful adoption. Clinical councils of doctors, nurses, and other front-line users will support workflow configuration, and they will help identify staff concerns and propose responsive solutions. VISNs will have the opportunity to configure workflows without customization based on their unique circumstances. And we will continue to work with our DoD counterparts to help navigate joint costs, schedules, performance, and interoperability objectives. It is a user-centric approach to a veteran-centric change.

VA's Electronic Health Record Modernization represents a monumental improvement for veterans, possible only with the strong support of the President, this Committee, and the Congress, Veterans Service Organizations, and other stakeholders. Thank you for honoring our Nation's commitment to veterans and I look forward to your questions.

[THE PREPARED STATEMENT OF PETER O'ROURKE APPEARS IN THE APPENDIX]

The CHAIRMAN. Thank you, Mr. Secretary.

Admiral Bono, you are recognized.

STATEMENT OF VICE ADMIRAL RAQUEL BONO

Admiral BONO. Thank you, sir.

Chairman Roe, Ranking Member Walz, and distinguished Members of the Committee, thank you for the opportunity to testify before you today. I am honored to represent the Department of Defense and discuss the Department's experience in implementing a modernized electronic health record, EHR, and I am excited about the tremendous opportunity we have to advance interoperability with the VA and private sector providers as a result of the VA's recent decision to acquire the same commercial EHR that the DoD is now deploying.

The decision by DoD to acquire a commercial EHR was informed by numerous advantages: introducing a proven product that can be used globally in deployed environments, as well as in military hospitals and clinics in the United States; leveraging ongoing commercial innovation throughout the EHR life cycle; improving interoperability with private sector providers; and offering an opportunity to transform the delivery of health care for servicemembers, veterans, and their families.

In 2017, the Department deployed MHS GENESIS to all four initial operational capability, IOC, sites in the Pacific Northwest, culminating with deployment to Madigan Army Medical Center, MAMC, the largest of the IOC sites in Tacoma, Washington. The other sites include the 92nd Medical Group at Fairchild Air Force Base, Naval Health Clinic Oak Harbor, and Naval Hospital Bremerton, all in Washington State.

Over the next 4 years, MHS GENESIS will replace DoD Legacy Health Care Systems and will support the availability of electronic health records for more than 9.4 million DoD beneficiaries and approximately 205,000 MHS personnel globally.

By deploying to four hospitals and clinics that span a cross-section of size and complexity of MTFs, we have been able to perform operational testing activities to ensure MHS GENESIS meets all requirements for effectiveness, suitability, and data interoperability.

Right now we are in the midst of making important improvements to software, training, and workflows, addressing the lessons we learned in the initial deployment as we prepare to continue our deployments into 2019.

End user feedback to our changes have been relatively positive. Our success is dependent on strong clinical leadership, both here and our headquarters, and by clinical champions at the point of care. The Department is focused on maintaining this clinical leadership as we move to the next deployment wave.

To best support MHS GENESIS, the Defense Health Agency is also fielding a cost-effective communications infrastructure and network throughout the military health system.

When completed, DoD medical providers, whether they are affiliated with the Army, Navy, or Air Force, will be able to use their Common Access Card, CAC, into any computer on the DoD Health Care Network and access their identical desktop as they travel from one location to another, inside or outside the continental United States.

We have also optimized our network to help ensure continuity of care for our beneficiaries. Over the past 5 years, DoD steadily increased its data-sharing partnerships with private sector health care organizations. Today, DoD has nearly 50 health information exchange partners in the private sector.

Since award of the VA contract, leaders of both departments have been meeting to more formally integrate our management and oversight activities. We are sharing all of our lessons and future plan deployments with our colleagues at the VA, and plan to synchronize deployments where possible. The VA and DoD understand that the mutual success of this venture is dependent on our continued close coordination and communication.

Thank you again for the opportunity to come here today and share the progress we have made to transform the delivery of health care, as well as discuss the opportunity to strengthen the DoD/VA partnerships as we move forward together with a common EHR that will benefit millions of servicemembers and veterans. As a partner in our progress, we appreciate Congress' interest in this effort and ask for your continued support to help us deliver on our promise to provide world-class care and services to those who faithfully serve our Nation.

Thank you for this opportunity and I look forward to your questions.

[THE PREPARED STATEMENT OF RAQUEL BONO APPEARS IN THE APPENDIX]

The CHAIRMAN. Thank you, Admiral, and thank all of you all for being here.

And this is—first of all, I want to thank the Members for being here—this is not the kind of a hearing that you are going to go home to the Kiwanis Club and say I am going to talk about the electronic health record. People are going to start looking at their watch and heading to the doors. But it is—I know this personally—it is incredibly important that we get this right.

And I have only made one visit to begin to see the rollout, but I intend to make others as quickly as I can. And one of the things that first to make this all work, we have spent a year and a half doing the VA MISSION Act where people that can't access care timely or whatever the reason is, maybe live in a rural area, that they access care outside the VA, it is incredibly important that these health information exchanges work, that we can share information. It is a problem in the private sector, trust me. I mean, you can't go to your hospital and get the information, you can't get a lab test.

One of the things that bothered me when I was out at Fairchild was on MHS GENESIS, when you came in, what was entered into the EHR was basically allergies, medications, procedures, immunizations. I can get that in one minute of asking somebody. Other data, which included what I really want to see, are your lab results, X-ray reports, notes from previous visits, discharge summaries, you have to use the Joint Legacy Viewer to look back. And my question is, our providers—that slows you down.

I have told people all along, if you are in a busy practice like I was and saw 25 people a day, you took 2 minutes is all, it added 2 minutes to each patient, I am an hour late at the end of the day. And you have frustrated people, the doctors and nurses are staying after hours to fill in the reports.

So are we going to be—Mr. O'Rourke, you can answer it, any of your team can or, Admiral Bono, you can—are we going to be able to put all this information where the practitioner, the nurse, and the other providers are able to access it without using two systems? And if we do, what is the point of using Cerner if we have kept two systems live? You have then got the cost of the old system, which I think is about a billion dollars a year, and then what would be the cost of the new system, Cerner, to maintain it? If we have just added cost and haven't added value, we haven't added much.

So I will start with Admiral Bono.

Admiral BONO. Yes, sir, thank you very much. And you are exactly right, you have described that perfectly.

And so one of the things that we did is we embedded the Joint Legacy Viewer within our MHS GENESIS, so that it is just within the people in the past that had to log out, log in, contributing to the time, now it is a click within the MHS program. Because having access to that information that we put in the Joint Legacy Viewer, that is not only a part of the care that people may have received in VA hospitals, but also in the private sector, is incredibly important to the continuity of their care. So what we did is we have embedded it into MHS GENESIS.

The CHAIRMAN. Well, especially for you all at DoD where 60 percent of people—

Admiral BONO. Yes, sir.

The CHAIRMAN [continued].—get their care outside the Department of Defense, if that information doesn't flow—

Admiral BONO. Yes, sir.

The CHAIRMAN [continued].—bad results happen.

Will the VA be able to do that, Mr. O'Rourke, be able to put—because basically the people I saw at Fairchild are healthy airmen, I mean, they are young, healthy people for the most part; if not, they are not in the military. So will the VA be able to take these very complicated medical records, which have—I mean, many patients are ill and older.

Secretary O'ROURKE. Absolutely. Our goal is to make sure that we have seamless data transfer in all those different aspects.

I am going to let Dr. Ashwini address that specifically.

Dr. ZENOOZ. Congressman, we understand at the VA, as well as the DoD, that a complete longitudinal record is the ultimate goal. And as part of the lessons learned from not only the DoD implementation, but our use in the VA with JLV and external implementations, when we go live at our Cerner sites, Cerner implementation sites, we will have a single system that ingests all of the records not only from DoD, anything that is coming in, but also from our community providers into the appropriate place for a long record. That is above and beyond the PAMPI data that you just noted. That will include notes, clinic notes, laboratory exams, radiology exams, and much more.

The CHAIRMAN. Well, that is a robust—because we are talking about March of 2020, and hopefully most of these Members will still be sitting here in 2020, if they desire, but that is not that long. If you are starting in October, we are at that point almost in 2019, so you are a looking at an 18-month rollout in the Northwest. Would it make sense to roll out a Great Lakes, which is where you have a combined VA/DoD facility, are you going to roll that out simultaneously?

And I know, Admiral Bono, that may not be in the works, but it seems like that would sense.

Admiral BONO. Yes, sir. I think that by working with the VA we have identified areas where we do have some synergies that we want to capitalize on. We certainly looked at the Great Lakes area. I know that there are some infrastructure things that we have to address there, but I think that would be an opportunity we definitely want to explore.

The CHAIRMAN. the other thing I would like to ask, are you all working together, sharing this information, so we don't recreate the wheel? And what I am asking about that is, I think when I read in DoD the people on the ground, the people that are every day I have got to click this thing on and try to make it work, they didn't really know who—when they had a work order or something, they needed an answer to a question, they couldn't get the answer to that question. It was basically there was like me calling a prescription to one of these large drugstore chains, 1–800–HOLD.

So basically that is what was happening, it looks to me like they couldn't get an answer, so they had to do a work-around. Have we

learned things from that, so that the people actually implementing this thing that, you know, their stomach is hurting, they are taking another Zantac because of it, do they have a way to get an answer quickly without going through back to D.C. and through this big hoop?

Admiral BONO. Yes, sir. As a matter of fact, based on the feedback that we were getting from the end users, as well as the report and observations that your group was able to share with us, we have put in place a more streamlined process to be able to address these. And we have stood up an Office of Chief Health Information and what that does is allow us to make some decisions closer to the actual site.

The CHAIRMAN. Yeah, that would be the trouble-ticket resolution.

Admiral BONO. Yes, sir.

The CHAIRMAN. And you said DoD is making adjustments to software, training, and workflows; what adjustments have you made?

Admiral BONO. Yes, sir. So some of the training is extremely important and we realize that, and that is one of the lessons that we have shared with the VA. Training has a large part to do with the changed management and, as I think you mentioned, it needs to be something that the providers can easily adapt to. And I think that is one of the pieces that we have learned is that the providers need to be very much a part of that training and that changed management.

And so the workflows that we have introduced have to reflect what best supports the clinical practice.

The CHAIRMAN. Okay. My time has expired.

Mr. Walz?

Mr. WALZ. Thank you, Chairman Roe.

I want to get us all on the same sheet to start with, so Mr. O'Rourke, let's clear this thing up from the beginning. I want you to guarantee me the IG will immediately have access to that Office of Accountability Whistleblower Protection database and any other information it needs to audit that program today. Can you give me that assurance they can have all the data they ask for?

Secretary O'ROURKE. Absolutely, sir. The IG has had access to any information of the Office of Accountability that he would request—

Mr. WALZ. That is incorrect.

Secretary O'ROURKE [continued].—appropriately.

Mr. WALZ. That is not the understanding of the IG.

Secretary O'ROURKE. So there is just one thing to clear up. The information that we protect in the Office of Accountability is privacy information and, just like this Committee, what the accountability law prescribed was the privacy of whistleblowers, which is sacred to us in the office. The privacy of whistleblower identities is specifically called out in the accountability law that it cannot be shared with anybody, including the Secretary. I can't even see at this point in my current role unless given written authorization by the whistleblower.

Now, that is a Privacy Act now record that applies in Title 5, which only requires that the IG request—he doesn't have to provide a reason, he just has to say I would like this information, and he will be provided that. That is all we have asked for.

In fact, we took the extra step, one of the things that I tried to do as the Executive Director, which was to have a liaison from the IG in the Office of Accountability to review these records as we received disclosures. It wasn't something they were interested at the time, that's fine, it is up to their discretion, but that request only needs to be made so we can both Title 5 and the accountability law be covered, and he can have any information that he would like.

Mr. WALZ. We will get back with the IG today—

Secretary O'ROURKE. Absolutely.

Mr. WALZ [continued].—and make sure that they are satisfied, and we get in and we get that done. That's great. And I understand why Chairman Roe said Mr. Sandoval was not invited here. The thing I would mention to you, though, is at the heart of the single biggest electronic project maybe we have ever done in government, we haven't received one phone call, one text, or one interaction at all with Mr. Sandoval at the people who are involved in this.

Secretary O'ROURKE. Sure.

Mr. WALZ. So my team, so we need to know who to contact. And, again, we have a new office set up, the only contact was you. Do you want the staff to go directly through you or is there someone over there manning that? Is there someone we can contact to talk to about the issues?

Secretary O'ROURKE. Absolutely. This team that is with me here today is leading up the core part of that new office. As we stated and as we talked about in the opening statement, we are continuously improving both the structures and the approaches, that is how we are going to approach this entire project. We are going to share that with you as many times as we have the opportunity and we are highly—we are excited, frankly, with the special oversight Committee.

Mr. WALZ. Can they send us the attachment?

Secretary O'ROURKE. Absolutely.

Mr. WALZ. Okay. I want an assurance too that the GAO will have access to the officials and the contractors involved in the project. Can you assure me that GAO will sit in on those governance meetings and be allowed to review the quarterly reports—

Secretary O'ROURKE. Absolutely.

Mr. WALZ [continued].—at will? All right.

Secretary O'ROURKE. Absolutely.

Mr. WALZ. So setting up that governance board, now that the contract is out there, I am assuming that it is in place, who will be part of the five project governance boards and how often do they meet? We are just unsure of how that is going to function and what is there, who is on it, how it has been done. How far, in your assessment, on that process are you?

Secretary O'ROURKE. Well, I think it is helpful for you to see how the leadership is looking at this. We know and we agree with both you and the Chairman that leadership has to be involved in this, although this can't turn into some top-down implementation. So I know for me personally, I will be involved. We have set up not only the governance boards, we have set up overall management boards where we are looking at all of our priorities, this being one very specific. And so we are bringing the entire VA senior leadership team to view these projects.

Now, specifically for the governance boards, John, do you want to give him some more specifics?

Mr. WINDOM. Yes, sir. As we assessed potential governance actions, it was important to have a cross-functional team composing these governance boards. So you will see representation from the field, probably most importantly, but also from headquarters, from OINT, from VHA, from other representatives. And it is often an issue-dependent makeup of the board, so we will ad hoc members of the board based on an issue in particular that may be at hand.

Those boards are set to meet—again, I need to emphasize that governance has to take place at the lowest level. We can't escalate things continually to the Secretary's office; otherwise, we are failing. And so we don't intend to fail, so we will be managing these governance evolutions at the lowest level.

To my left, Dr. Ashwini Zenooz, she leads the Chief Medical Board, and to my right, John Short leads the Technology Board.

So, again, cross-functional membership, timely resolution will be imperative for our boards to be successful.

Mr. WALZ. Well, I am hopeful. I know no one intends to fail, but I have seen it. We are going to have to find out what your full-time needs are and who has been staffed into that.

The thing I will say, and it is probably not for this group, this is a higher level, but we still don't have a confirmed Secretary, Deputy Secretary, Under Secretary for Health, or Chief Information Officer. It is pretty important that those positions be filled with some stability. I pass that on for anybody who is listening, or if you have got a direct line to the person who can nominate and get those done, that would be great.

Secretary O'ROURKE. Yes, sir.

Mr. WALZ. So I yield back.

The CHAIRMAN. I thank the gentleman for yielding.

Chairman Bost, you are recognized for 5 minutes.

Mr. BOST. Thank you, Mr. Chairman.

First off, let me tell you that I agree with the Chairman on how important this is. One of the biggest shocks that I had whenever coming and becoming a Member of Congress was working to try to get the medical records simply transferred from DoD into Veterans Affairs, which is just amazing to me in a Nation of this size and that it has taken us this morning. Of course, you have got to remember, I came from a time when I left the Marine Corps, my medical records were on microfiche. So now we need to step forward.

But, Mr. O'Rourke, I need to find out, you know, the Commission on Care report issued June 30th, 2016, recommended that the VHA produce and implement a comprehensive commercial, off-the-shelf information technology solution to include clinical, operational, and financial systems that can support the transformation of VHA. And I believe this is a good thing and that the VA has finally listened to the recommendations after a few years, but it does not seem as though the VA has already—or it does seem as though the VA is already experiencing some delays during the contracting phase with Cerner.

How does the VA plan to work with Cerner and DoD to ensure that the implementation time line is met?

Secretary O'ROURKE. Sir, that request to us to transform VHA was one of the things that has driven us to look at every aspect of our health care delivery system. So I can assure you that we are taking that charge very seriously.

When it comes to working with DoD, I think we have talked this morning and I think by having the Admiral here this morning with us shows that we are hand-in-hand with DoD to make sure that veterans are served from the time that they sign up on Active duty to the time that they come to the Veterans Administration for service. We are not going to run away from that challenge. We see that it is one of the more important things that we have to face today.

So I can assure you our full leadership team is involved in making sure that we address those issues.

Mr. BOST. Okay. I think that is what is vitally important to this Committee, because many of us see as you move forward, when we hear reports and the questions that are out there, the big fear we have is those dates are not going to be met and we want to make sure—we want to make sure it is done right, but we also want to make sure that it is done in a way where the American citizens and our veterans can actually see it come to pass in a quick and efficient manner.

Kind of on that is the second part of my question. According to an article on Military.com, it appears some of the hospitals implementing MHS GENESIS have been experiencing delays, especially at the pharmacies. Has the VA discussed with the DoD ways to avoid these increased delays due to the EHR and its systems?

Secretary O'ROURKE. So we have been reviewing those reports and actually the documents that we share together with the DoD continuously since we have started this process. So we are aware of what the issues are there, and we have worked together to provide our input on those solutions, but also taking what the DoD has done to solve those issues as well and integrated those into our plan.

Mr. BOST. Just for me knowing, how many staff do you have working on this at this time, and is it a large group or is it pretty much turned over to Cerner?

Secretary O'ROURKE. We are not going to turn everything over to Cerner. We will have our internal team built, as you know, we are continuously developing that org structure and what is going to be the best to not only make sure that we have top-level oversight from a management standpoint, but also have the right governance and the right decision-making being happened at the deployment sites, and then also in a Program Executive Office.

Mr. BOST. Thank you.

Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman for yielding.

Mr. Takano, you are recognized.

Mr. TAKANO. Mr. O'Rourke, I first want to echo the concerns raised by Ranking Member Walz. While serving on this Committee, I quickly learned the important role the IG plays in helping Congress to provide proper oversight of the VA and ensure that veterans are getting timely access to the benefits and care they deserve. The independence, the independence of the IG is absolutely crucial and proper oversight will be extremely important in the

years to come as VA undertakes the massive endeavor of updating its EHR system, and I believe the Senate expressed itself unanimously in a funding bill on this issue.

But to the matter at hand. The GAO identifies involvement of senior agency officials as a fundamental practice necessary to the successful acquisition and implementation of the EHR. We also heard at the hearing last week on staffing, that having strong leadership in place is crucial for the success of a new initiative.

Mr. O'Rourke, where is the VA in the process of identifying a qualified Deputy Secretary, Under Secretary of Health, and a Chief Information Officer?

Secretary O'ROURKE. I completely agree with you that the top—that senior leadership involvement in these is absolutely critical for success. Take a look at any implementation with a leadership is not there—

Mr. TAKANO. I get that. My time is short, but just tell me where you are. Where are you in the process? Have you been interviewing people? When can we expect these positions to be filled?

Secretary O'ROURKE. For the Deputy Secretary, that is something I will have to defer to the White House, that is a decision that they make on who they are going to pick for those senior leadership positions.

Mr. TAKANO. Okay. And what about the Under Secretary of Health and the Chief Information Officer?

Secretary O'ROURKE. So for the Under Secretary for Health, there is a process for that with the Commission. So we will be conducting a Commission here very shortly—

Mr. TAKANO. I remind you, we are undertaking a 10 to $15 billion initiative and we don't have these critical positions filled.

Secretary O'ROURKE. I agree.

Mr. TAKANO. How many FTE are needed to fully staff the Project Management Office and how many positions remain unfilled?

Secretary O'ROURKE. I can assure you that we are going to have the appropriate amount of FTE. For that specific question, I will turn it to John.

Mr. WINDOM. I will touch on that, sir. We have 260 identified as our organizational requirements at this phase. We expect that to grow as we obviously implement to more sites. Right now we have the requisite technical expertise on staff or access to that. Field support is imperative in this effort, and so being able to reach out to the field component, and so I would defer any additional comments to the Chief Medical Officer.

Mr. TAKANO. Okay. No one has given me a number. How many FTE are really needed here?

Mr. WINDOM. Two hundred and sixty for the next phase, sir.

Mr. TAKANO. Okay. And how many positions remain unfilled of that 260?

Mr. WINDOM. At this point right now, sir, the staffing is over the period of time. We have 135 clinicians that we need in-house to conduct the workload—

Mr. TAKANO. It is a simple answer—

Mr. WINDOM [continued].—all but thirty five—

Mr. TAKANO [continued].—you gave me a direct answer of 260, how many of the 260 remain unfilled?

Mr. WINDOM. Thirty five, sir.

Mr. TAKANO. So you have filled 260 minus 35? I can't do the math in my head.

Mr. WINDOM. Sir, the fill rate is—again, accessibility is important, it is imperative that we don't disrupt the care being delivered to our veterans today, so we are accessing field support from their respective activities. So, again, the important thing is that we have access to the requisite knowledge, whether it be clinical or technical, and we have that at this stage.

Mr. TAKANO. All right. So you said all but 35 have been filled?

Mr. WINDOM. Thirty-five, sir. And those are likely permanent hires, full-time hires that the hiring process is presently being—

Mr. TAKANO. So, just to be clear, 35 positions remain to be filled, is that what you are saying?

Mr. WINDOM. Yes, sir.

Mr. TAKANO. Okay. All right. Well, that is better than I thought. All right. Has the VA/DoD interagency working group met?

Mr. WINDOM. Has the D—sir, the interagency working group has met to solidify its governance processes. So that is an ongoing process. We meet formally monthly, we meet routinely every Friday, and we meet—

Mr. TAKANO. So you have met. Who attends these meetings, who attends the meetings?

Mr. WINDOM. Sir, I lead the effort for the VA side and Stacy Cummings, who is the PEO for the DHMS effort or the MHS GENESIS effort leads on the DoD side.

Mr. TAKANO. And you did give me an idea of how often it meets. It meets how often?

Mr. WINDOM. It meets monthly formally, all-day session monthly, it meets every Friday for approximately 45 minutes, and it is continuously amongst the field experts and the clinicians and the technicians that are working specific issues.

Mr. TAKANO. I will just conclude my time by just saying that I don't see how this is going to end well unless we get the top leadership positions in place and that these folks that fill, especially the Chief Information Officer as a highly qualified individual to oversee this project. And it is not on you, it is on the White House for leaving these positions unfilled, especially when we have this massive, massive contract that we have got to oversee.

Mr. WINDOM. Yes, sir.

Mr. TAKANO. Thank you.

The CHAIRMAN. I thank the gentleman for yielding.

Dr. Dunn, you are recognized for 5 minutes.

Mr. DUNN. Thank you very much, Mr. Chairman, and I thank the panel for coming today. I know it is—I can imagine how much fun it is to be here.

So I want to say at the outset, I am a physician, my career spans the period of time that began with handwritten notes and faxes, a new invention back then. So now we are in fifth generation EHRs. I have lived through EHR purgatory on multiple occasions and spent a great deal of my own office's money on EHRs. So I am certainly sympathetic, and I understand the size of the project that we are taking on.

I want everybody here to remember that fundamentally, most importantly, what we are doing is not building an EHR, we are taking care of our patients, the veterans. That our goal was quality, timely care for veterans, it is not to have, you know, the best EHR that has ever been invented.

So with that in mind, let me start, if I may, Mr. Secretary, I know you have a deep experience at the VA and in other organizations and in health, can you address what you think are some of the barriers to and challenges to implementing this new EHR?

Secretary O'ROURKE. Thank you. What we face, as you said, is a historic opportunity. I think everybody at this table is committed to the outcomes for veterans that we all desire, which is a great health care delivery system, benefits delivery system. We see this opportunity as the next step in that journey of being able to provide veterans exactly what they deserve. We all come to this with somewhat of excitement in a sense of being able to be on the front end of history, of what we see as an opportunity that doesn't come along once or twice in a generation. So we are looking forward to that.

From anything that is standing in our way, I really don't see that. I think we have gotten the support from the Congress that we absolutely need, that will come in the form of an oversight, working with us, taking on anything that we see as a problem for us. But, you know, when it comes to just communication between us and you all amongst ourselves with DoD, those are really going to be what we face.

Mr. DUNN. So we have a historic opportunity to succeed or fail, and certainly I want you and your team to keep us informed about what we can do to push the needle towards success. How are we explaining this to the average, all your clinicians? You have got a lot of doctors and nurses, how are you explaining to them the benefits of this change?

Secretary O'ROURKE. We understand this was going to be a deep cultural change, but luckily, I have a Chief Medical Officer here that can provide some more detail.

Mr. DUNN. Dr. Zenooz, go ahead.

Dr. ZENOOZ. Thank you, sir. We understand that this requires a cultural change and that this is first and foremost a business transformation more than just an IT project. So with that in mind, changed management is number one on our list. We have a robust change-management plan that not only involves training, elbow-to-elbow, virtual sessions, et cetera, but we also involve the field at the very beginning of the process here.

Mr. DUNN. That's good. I was going to ask you about that. So your doctors, your nurses, your clinical specialists, they are actually involved in helping design the interface, and also what you need to have in the way of information coming out of that?

Dr. ZENOOZ. Correct. They will be involved not only in designing, but will also lead the way as we go forward.

Mr. DUNN. So and to Admiral Bono, we say this is interoperable between DoD and the VHA, will it really be? I mean, I am a doctor in the DoD, I am doing a medical record, I walk over to the VA, would I be able to recognize and operate the system over there?

Admiral BONO. Yes, sir. I think that is one of the benefits that we have got here is it is a single instance of the EHR record, so it is the same product.

Mr. DUNN. Same interface?

Admiral BONO. Yes, sir. And that is why we are very invested in their success, because it will mean our success as well.

Mr. DUNN. So this really would be a first time. I have worked in I don't know how many hospitals, how many clinics, and every single one of them has a different interface and it is maddening, I can tell you. It is a reason to actually constrict where you work.

I have this for Secretary O'Rourke. The VHA clinicians, are they actually already being prepared for this standardization? Maybe that should be to you, Dr. Zenooz.

Secretary O'ROURKE. I know that we are making it a regular component of leadership communications with the field. I know every visit that I take to a Medical Center director we are making this a topic of discussion, preparing our clinicians, our leadership at the local levels for what is coming, and providing them a positive outlook. It is going to be hard enough, as Dr. Ashwini had mentioned, as with the cultural change. So we are working very hard with what we can do at our level to make that—

Mr. DUNN. Well, my time is about to expire, but I do want to encourage you to work with the clinicians very, very proactively. You mentioned a cultural change, it is a huge change for them, and they are focused on their patients and they think that, you know, sometimes we irritate them with the EHR changes.

I yield back, Mr. Chairman. Thank you.

The CHAIRMAN. I thank the gentleman for yielding.

Ms. Brownley, you are recognized for 5 minutes.

Ms. BROWNLEY. Thank you, Mr. Chairman.

So where does the buck stop on this implementation plan?

Secretary O'ROURKE. With me.

Ms. BROWNLEY. And when a new Secretary is appointed there will be a transference of information to the new Secretary?

Secretary O'ROURKE. It is a very good thing to point out, because I think it goes back to an earlier question. Without a Deputy Secretary, and it is very clear right now that the Deputy has a pivotal and a critical role in this, right now without one that role is up to the Secretary. It will stay with me until we have a new nominee confirmed, and then it will be with him until we have a Deputy Secretary in place.

Ms. BROWNLEY. Thank you. So I have been on this Committee for five and a half years and one thing that I can say based on historical experiences is that lack of leadership or turnover in leadership has caused delays in almost, you know, any endeavor that has been undertaken. And so I think I share the concerns of many on the Committee that, you know, at the outset we are worried about various deadlines and meeting the interim goals as we move forward on this.

The early time line the Chairman mentioned, the preliminary plans to include an 8-year deployment schedule beginning with the initial implementation sites within 18 months of October 1, I am concerned about that. Also, I understand that there is an ongoing development that the VA is working on, on life-cycle costs, on data

migration, a change-management plan, and an integrated master schedule to establish key milestones over the life of the project.

So I think the GAO reported that the Department intends to complete the development of its initial plans for the program within 30 to 90 days of awarding the contract between—and that is between mid-June, mid-August of 2018. Are you still on schedule to meet these deadlines?

Secretary O'ROURKE. As we discussed earlier, it is our work and the planning and development of those milestones over the next July through September of this year.

Ms. BROWNLEY. So do you know now when the first sort of key milestone will be?

Secretary O'ROURKE. Having our IOC plan to start on October 1st.

Ms. BROWNLEY. Then the second milestone?

Secretary O'ROURKE. The second milestone will be getting to an initial operating capability at those initial sites.

Ms. BROWNLEY. Okay. Well, so I just—you know, I am not sure what the driving question is here to get some assurances, but certainly meeting those first couple of milestones I think is going to be very important in terms of reassuring this Committee that we are indeed on track with this implementation. And has been already stated, this is obviously an extremely, extremely important endeavor that we have invested a tremendous amount of tax dollars into and our desire to be successful.

And I will just reaffirm what others have already said, is that the lack of leadership or the turnover in leadership right now is a major concern.

The last question that I just wanted to ask you, Secretary O'Rourke, is that I know earlier this year there were some reports that the signing the Cerner contract was delayed based on sort of outside, non-governmental individuals were attempting to influence perhaps the use of commercial off-the-shelf electronic health records rather than proceeding with this Cerner agreement. Can you just assure the Committee and assure me that you feel that your work is really free from any undue outside political influence?

Secretary O'ROURKE. Absolutely. As you all know, I became the Chief of Staff in an interesting time and one of the key tasks I had at that time was to bring some sense of order to the Department in a time when we were struggling in some ways. One of the key things that I focused on very quickly was the EHRM process, I guess if you can call it at the time, and seeing where it was and how do we get it finished, because I knew from this Committee's perspective that they wanted to see a result. So I became very involved in making sure that we were pushing toward the right result. So I would not characterize this as anything other than providing the best product for veterans which we knew was going to be, like we talked about, a historic opportunity, we weren't about to let that be changed in any way and demystify that.

Ms. BROWNLEY. Thank you.

My time is up, I yield back.

The CHAIRMAN. Thank you for yielding back.

Mr. Higgins, you are recognized for 5 minutes.

Mr. HIGGINS. Thank you, Mr. Chairman.

Secretary O'Rourke, thank you for your service to your country, sir. I would like to dive deeper into what the Ranking Member asked you about regarding GAO and IG records requests.

We are all pretty much universally concerned about transparency in government and there is no more opaque alphabet branch of our government than the VA, historically. So we have a greater responsibility to be more transparent, more reflective of the will of we the people in service to the veterans that we are dedicated to, my brother and sister veterans. It is more crucial that we are completely transparent regarding our reactions to whistleblowers and requests thereof.

My understanding is there is a proposed rule in the VA to amend the Department of Veterans Affairs regulations governing the submission and processing of requests for information under the Freedom of Information Act and the Privacy Act in order to reorganize, streamline, and clarify existing regulations; is that true?

Secretary O'ROURKE. I would have to take that back for the record, I am not personally aware of that.

Mr. HIGGINS. Okay. Specifically regarding the confidentiality of whistleblowers' data, it seems to me that if the IG or the GAO has requested data and that would include some whistleblower information, it seems to me that could be redacted, but that there can be no guarantee of confidentiality for whistleblowers.

Certainly none of us in America, certainly not on this Committee, we don't want the VA investigating itself. We don't want the DoD investigating itself, we don't want the FBI investigating itself, and we don't want the VA investigating itself. The GAO and IG and the Committees like this are bound by oath to perform those tasks.

And from the U.S. Director of National Security government website, in a question-and-answer segment regarding the question how realistic is it that I will maintain my confidentiality, it says on our website, "At some point in an inquiry, it may be necessary to reveal your identity to further the whistle-blowing process or as otherwise required by law. Additionally, dependent upon the nature of the inquiry, the information disclosed may make your identity obvious despite all precautions taken to maintain your confidentiality."

So please explain to us and I ask you this respectfully, sir—I understand you have a job to do, I was a police officer for 14 years, I understand internal investigations, but this is the VA, man, we have major problems here that it is our responsibility to fix and our investigative services for government branches that respond to whistleblower data, if they request that data, they need to get it. So please explain to us what you had stated regarding whistleblowers having to get permission for their data to be revealed.

Secretary O'ROURKE. I will do it very concisely. It is very clear what the accountability law states about the identity of whistleblowers and what that—who and how that information is revealed or shared. Privacy law, since we keep that information in the system of records, Privacy Act law covers that information. For all of those entities that need that information, it is a simple written request. They don't have to provide a reason. They don't have to provide an excuse. They just say we want this data provided and it is provided, without redaction. The only redaction we—

Mr. HIGGINS. Does the answer to the—in the question and answer section on the U.S. Directive National Security Government website, does that reflect the reality that you are explaining today regarding government employees questioning their confidentiality if they bring whistleblower data to a supervisor?

Secretary O'ROURKE. When they bring it to their supervisor, there is a less of a hold on their privacy because they are bringing up a—the disclosure that is maybe process base or things like that, retaliation, things of those nature when they are disclosing those have to have their names attached to them, otherwise you can't prove the retaliation.

Mr. HIGGINS. Doctor, you had something to add? You motioned—did you raise your hand, Madam?

Secretary O'ROURKE. They are both from the H.R. program, I am the guy that gets to answer the questions about accountability.

Mr. HIGGINS. All right, Mr. Chairman, my time is expired, but I will have a written question to submit to the panel if that is within the parameters of our authority, sir.

The CHAIRMAN. It is.

Mr. HIGGINS. Thank you.

The CHAIRMAN. Ms. Kuster, you are recognized.

Ms. CUSTER. Thank you very much, Mr. Chairman. I noticed at the outset that our Chair was quite clear that he had not included Acting Chief Information Officer Camilo Sandoval in the invitation to be here today, but I just want to note for the record that it does trouble me. I—this is not the subject of this hearing, but I can't pass it up to say that the merit system's protection board study has found the Veterans Administration as being the highest incidents of sexual harassment across all Federal agencies.

I won't get into the details of Mr. Sandoval's situation, but do you have confidence that Mr. Sandoval can accomplish his mission, which is so crucial to our veterans all across this country? Many of us joined this Committee five and a half years ago. Our very first hearing was about the fact that we could not communicate between the Department of Defense and the VA, we are spending millions—hundreds of millions of dollars, and yet the very person that is supposedly in charge is not able to focus on his duties because of allegations during the campaign about sexual harassment.

Secretary O'ROURKE. I can't address what is in, I guess, in a lawsuit, but I can tell you we are setting—

Ms. KUSTER. Well, can he get the job done? Should he be replaced and is he being replaced? How are we going to get the job done?

Secretary O'ROURKE. I have a lot of confidence in Camilo Sandoval and what he has been able to do as the executive in charge.

Ms. KUSTER. Is he on the job to get the job done?

Secretary O'ROURKE. Absolutely. He has been finding—working with us to find, and restructure, the Office of Information Technology because of some of the poor leadership that it has had in the past.

Ms. KUSTER. But if he loses his job because of these allegations, do you have another plan?

Secretary O'ROURKE. If the President decides to remove a political appointee, then we will have somebody else step into that role, just like he stepped into that role when the previous executive in charge left.

Ms. KUSTER. It just seems that with an acting secretary waiting for confirmation with a number of these offices that we have all discussed today, including the Chief Information Officer, I just have to note for the record we are not putting our best foot forward on this project and it is a disappointment.

Admiral Bono and Mr. O'Rourke, can you please describe how you hope to use the Cerner EHR to improve the management of pain and opioid prescriptions with our Nation's servicemembers and veterans?

Secretary O'ROURKE. I know that there are some unique features within the Cerner product that help us provide that kind of oversight.

Ms. KUSTER. Is there anyone on the panel that could describe those features?

Secretary O'ROURKE. And I am going to pass that off to my Chief Medical Officer.

Ms. KUSTER. Thank you very much.

Dr. ZENOOZ. Thank you. One of the main components of the Cerner plan for opioid risk is a risk stratification tool. It not only brings in all of the information from the various PDMS's, the prescription drug monitoring programs across all of the different states that participate in it, it brings it to a single place so that our providers have it at their fingertips. But it also gives them a scoring for the patient's risk for opioid abuse.

So it takes it not only from the community provider's VA prescriptions but also any input that we get from the military of history of opioid prescriptions for the patient. So I think it is very effective.

Ms. KUSTER. Good. I would like to be kept apprised of the progress of that and any results, or data, or findings if there is research on how that has been effective.

Dr. ZENOOZ. Absolutely.

Ms. KUSTER. You mentioned community care and another concern that I have, one of the largest concerns with interoperability is with the VA's community providers. What are Cerner's current plans to facilitate interoperable functionality with community care providers?

Dr. ZENOOZ. Absolutely. We recognize that more than 30 percent of the care in the VA is delivered in the community and that we need to have our providers across the care continuum to have access to all of the data. Our goal is not only to have data that is available to them through current practices, but to build on it. Whether it is our 168 HIE's that we are currently using, that we participate in, direct messaging, provider portals that we provide to the community. But also have the ability for the providers, inside and outside of the VA that participate in the care to have the analytics tools and the registries available to them so that they can participate and improve the outcomes of the patient.

Ms. KUSTER. That is another piece that we would like continual monitoring on.

Dr. ZENOOZ. Absolutely.

Ms. KUSTER. My time is short but just briefly, if the community provider does not use Cerner, can you have an interoperable function?

Dr. ZENOOZ. Yes, absolutely. We have health information exchanges that we participate in. We have a network of 168 that we partner with currently. So it doesn't have to be Cerner. It could be any of the other EHR systems and record sharing systems that they use. If the community providers—

Ms. KUSTER. My time is up. I apologize. I truly don't like being rude, but I know I need to yield back. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you for yielding. Mr. Banks, you are recognized for five minutes.

Mr. BANKS. Mr. Windom, I was much confused a moment ago as you were answering Mr. Takano's questions about the inter-agency working group. Have you met more than once just to discuss governance, as you put it?

Mr. WINDOM. Yes, sir. We have been meeting for the past year. As we negotiated the Cerner agreement, we knew governance would be imperative. So we have been working with the DoD—

Mr. BANKS. How many times have you met? How many times have you met?

Mr. WINDOM. I would estimate somewhere around six or seven.

Mr. BANKS. On a monthly basis?

Mr. WINDOM. Correct.

Mr. BANKS. Do you speak with your colleague more than once a month or do you only speak with your colleague during the inter-agency meeting?

Mr. WINDOM. No. We have a Friday call, standing Friday call at 11:00 a.m. and we also have continuous interactions at the technical and the clinical levels. That is where the hard work is really being done.

Mr. BANKS. Okay. Thank you. Mr. O'Rourke, an article was published at the very start of this hearing, just a little bit ago, stating that Genevieve Morris, who is seated right behind you, will be leading the GENISIS office. If that is true, when was that decision made and why isn't she testifying today?

Secretary O'ROURKE. It is premature reporting. We were going through the process of actually setting up the industry standard structure for these kind of implementations, which uses more often than a chief information officer, a chief medical information officer.

Ms. Morris has been instrumental with helping us through really the past few months. She has been loaned to us from HHS and has been critical to this team and has helped us with some broader perspectives of the industry and successful ways of implementing this project.

Mr. BANKS. So she won't be leading this officer?

Secretary O'ROURKE. We are evaluating that chief medical—

Mr. BANKS. Premature, perhaps inaccurate reporting?

Secretary O'ROURKE. The accuracy of it is—definitely she is a candidate for that job. She would be perfectly qualified for that.

Mr. BANKS. So to be determined.

Secretary O'ROURKE. To be determined.

Mr. BANKS. Okay. Mr. O'Rourke, in your testimony, you state the VA structure, the IDIQ contract to, "Provide maximum flexibility." Can you explain what that means and what freedom of flexibility the VA has?

Secretary O'ROURKE. Early on, we were very concerned about being tied to a specific set of boundaries when it came to these kind of implementations. So we were very intent in the negotiations that John led to make sure that the VA has the primacy in making decisions on where we go with this and not be stuck with the contractor driving us to decisions we may or may not want to make. So we were intent on making sure that flexibility was there.

Mr. BANKS. So how can you use that contract flexibility to respond to hurdles during the implementation? For instance, if the planning takes longer than expected or the implementation in the initial sites don't go as smoothly as expected.

Secretary O'ROURKE. I would like to have John Windom specifically talk through that.

Mr. WINDOM. Yes, sir. IDIQ stands for indefinite delivery indefinite quantity. The way that works is task orders are issues in support of the foundational contract such that you can issue task orders to increase timelines, increase scope, increase the waived appointments, or you can restrict task orders to more control in support of cost schedule and performance objectives, and obviously the management of risk.

We never want to bite off more than we can chew. We understand the importance of our veterans and the care we deliver. And therefore, we want to make sure we optimize the use of that IDIQ vehicle in delivering those support services that we anticipate being able to deliver.

Mr. BANKS. Okay. Thank you. Mr. O'Rourke, can you assure me that the EHR modernization will result in one and only one EHR system?

Secretary O'ROURKE. That is definitely our intent.

Mr. BANKS. That would include for interoperability purposes and to access the Legacy data. And can you confirm to me that once the Cerner Millennium EHR is implemented, the VA will completely stop using VistA and the Joint Legacy Viewer?

Secretary O'ROURKE. It is our intent to not use Visa. The Joint Legacy Viewer, I think, may need some life cycle, but we are still in that planning part.

Mr. BANKS. But that is your intent?

Secretary O'ROURKE. Yes.

Mr. BANKS. Okay. Admiral, how is this dynamic working in MHS GENISIS, will Cerner completely replace CHCS and Ulta?

Admiral BONO. Yes, sir. That—we are going to transfer all of our functions onto the new electronic health record, MHS GENISIS and sunset the Legacy lens. We will still maintain some connection to our Legacy databases, but in terms of the Legacy applications and programs that are associated with Ulta and CHCS, those will be sunset.

Mr. BANKS. So that is a definite, that is not just your intent, that is definite?

Admiral BONO. Yes, sir.

Mr. BANKS. Okay. Thank you very much. I yield back.

The CHAIRMAN. I thank the gentleman for yielding. Ms. Rice, you are recognized for five minutes.

Ms. RICE. Thank you, Mr. Chairman. I would like to direct my questions to you, Mr. O'Rourke. So before you were in the position that you presently hold, you were actually the first executive director for the VA's Office of Accountability and whistleblower protection, right?

Secretary O'ROURKE. Yes.

Ms. RICE. And you did that for approximately how long?

Secretary O'ROURKE. From when we stood up the office in May through the time, I became Chief of Staff.

Ms. RICE. So that was what kind of time period?

Secretary O'ROURKE. Through I believe February of this year.

Ms. RICE. And I—you would agree that in that position, which I believe is the first of its kind in any governmental agency, a large part of your duty there was to ensure a level of accountability?

Secretary O'ROURKE. Yes, it was. It was to implement the new accountability and whistleblower protection law and to set up the new office.

Ms. RICE. So can you just go back again in your thought process in terms of not wanting to respond to the OIG's request for that information?

Secretary O'ROURKE. I think the broader story should be told on that. From day one, we realized that the relationships between the Office of Special Counsel, the Office of Investigative General, and others, frankly, this Committee, were not good. There were previous offices with MVA that had this responsibility to investigate senior leaders. It did not have a great track record.

It was my intent early on to break through those barriers between those very important entities that all had their statute driven mandates to make sure that we were all working together to protect whistleblowers first and to make sure that we were investigating misconduct and holding people accountable.

With the IG, that took the form of trying to find some creative and new ways to work together. There are some hard walls you can't cross with the IG, especially when it comes to criminal activity, those kinds of things. Those are not investigative responsibilities of our office that we were starting up. That is where we would partner with the IG. But as you can appreciate, a lot of things that happen in the VA cross different boundaries. And holding a senior leader accountable is sometimes a complex situation.

So we wanted to work closer with the IG, especially when it came to disclosures because part of the accountability law actually puts the weight on the Office of Accountability to review IG received whistleblower disclosures.

Ms. RICE. Right. But the problem is in the past, and we have heard this time and time again—

Secretary O'ROURKE. Yes.

Ms. RICE [continued].—here on this Committee is that the VA is incapable of holding anyone accountable in their ranks. And so it is essential that you have a body like an OIG to be able to look into allegations, whatever they may be, and be able to do that in an independent way. Do you—you made, to me, what I thought

were disturbing statements about how the OIG actually works for you and you are the supervisor of the OIG.

Secretary O'ROURKE. The IG is attached to the department.

Ms. RICE. But they are independent.

Secretary O'ROURKE. In their investigative capability and their freedom to look anything in the department, absolutely.

Ms. RICE. So then how can you deny them—giving them what they request?

Secretary O'ROURKE. The statute is very clear on protecting the identity of whistleblowers. The IG had requested—

Ms. RICE. But don't you think that there is a way that you can do that and also respond to the request of an OIG, which has a very important function, one that the VA has not been able to do on their own?

Secretary O'ROURKE. Again, the IG requested unfettered access to a system that had Privacy Act information. If they want those documents, those records, they can be provided those. They just have to provide a written request. No reason for the request, which was part of the rub here. All they need to say is we request these things. That provides coverage for that—for this office, for the records that they hold to provide them.

That is all they have to provide.

Ms. RICE. So it was a technical objection that you were making to what they did?

Secretary O'ROURKE. Well, it came—borne more out of we wanted to cooperate with the IG and provide them access to this directly, working with us, but not unfettered access to where they just come in and out of that system for non-investigatory reasons. So we were trying to work on a way to do that. That Is not something that worked out initially, so now we are just back to what the statute says is just provide the request and the documents are provided.

Ms. RICE. So much of—

Secretary O'ROURKE. And we provided documents all through this period of time. So it is not like they have been refused things. We provide disclosures to them on a daily basis as soon as they come in.

Ms. RICE. So much of how much faith the public has in their governmental institutions is the level of transparency and very often the facts don't carry the day, it is the perception of whether there is real transparency, real accountability. So when you act in the way that you do, I am sure, coming from where you did from the accountability and the whistle blowing, you have to be aware that visual, that perception is not a good one. And it actually seems to kind of track a disturbing trend in this administration in different agencies and positions as well that they are the king and they control everything, and all of these agencies just are meant to serve the President.

That is not the way the government works. So when you take a position like you do, that is the perception that you leave. And I would hope that someone with your level of experience would understand that and try not to make that mistake again.

I think my time is up. Thank you. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. I thank you, gentle lady, for yielding.

Ms. RADEWAGEN. Hello for Chairman Roe and Ranking Member Walz. Thank you for holding this important hearing today. I also want to welcome the panel. Thank you so much for your service to our Nation.

Following up on a colleague's earlier question, Admiral Bono, as VA's EHR modernization program staffs up, do you believe it would be useful to have staff from it working on MHS GENISIS?

Admiral BONO. Yes, ma'am. I think that is one of the reasons why we have continued—why we started to do our collaboration very early on as the VA was even in the early stages of getting the Cerner product. I very much want to be able to leverage off of any lessons learned that the VA has, as well as be able to share what we are learning on the DoD side with the VA.

Ms. RADEWAGEN. Can you elaborate on how this cross-pollination can be helpful?

Admiral BONO. Yes, ma'am. So a really good example is in the change management and the involvement of the clinicians. We have a fair amount of experience now with the change management and the workflow adoption and that is something that we want to be able to make sure and share with the VA.

Because this is a signal instance of a medical record, that is it is the same medical record, we recognize that being able to assist in the adoption of work flows that are common across DoD and VA will enable a faster deployment for us both.

Ms. RADEWAGEN. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. I thank you gentle lady for yielding. Mr. O'Rourke, you are recognized for five minutes.

Mr. O'ROURKE OF TEXAS.* Thank you, Mr. Chairman. And I want to begin by thanking you and the Ranking Member for taking this Committee's oversight and accountability responsibilities seriously. I am glad that you are standing up a new Subcommittee to track this contract, which I think all cost in may total $16 billion that we know of now. And I am just grateful on behalf of our constituents, the veterans in El Paso, in making sure that we see this through and that there is the oversight and accountability necessary that has been missing in the past.

I wanted to ask the Acting Secretary, what paused the April 30th DoD report from the Director of Operational Test and Evaluation gave you in moving forward with Cerner? One of the bottom lines in that report was a recommendation to freeze EHR rollout indefinitely. There are 156 reports of critical deficiencies. There was the suggestion that this Cerner platform may not be scalable. As they added new medical centers onto the system, those that had already been added slowed down significantly. It took pharmacists two to three times as long to fill a prescription as it would have had they not been using the Cerner system.

There were reports that clinicians literally quit because they were terrified that they might hurt or even kill one of their patients. The user score out of a possible 100 was 37. And there is—there are open questions about the accuracy of the information that is exchanged there. So what did that do to your, and the VA's, decision on adopting Cerner as a platform going forward?

Secretary O'ROURKE. I think as we discussed earlier, we have been working hand in hand with DoD and knew of some of the implementation issues that were described in the report and how they had been resolved. We have integrated everything that we have learned from them into our—both our negotiating strategy and into product and then into our deployment strategy.

Mr. O'ROURKE OF TEXAS. Yes, so what pause did that give you? When you saw this did you say, "Holy smokes. There are some significant problems here. We are going to put all of our eggs in this one basket: every DoD, every VA health record, every Active duty servicemember, every veteran, every military retiree." Did it give you any pause or did you say, "Hey, it looks like they have corrected all of these problems. And even though that report was a little more than two months ago, everything is fine."

Secretary O'ROURKE. We have never approached this project as just some sort of rose-colored glasses. We know this is going to be an extreme challenge for the VA and DoD, especially on the collaboration.

Mr. O'ROURKE OF TEXAS. Let me ask it this way. What existing concerns do you have? So you saw the report. You believed that DoD/Cerner are addressing the issues. Do you have any outstanding concerns, anything that gives you pause, keeps you up at night?

Secretary O'ROURKE. So I am going to turn it to John, but it is cost, schedule, and performance but —

Mr. O'ROURKE OF TEXAS. How about you just because you said the buck stops with you, so I would love to hear what you—

Secretary O'ROURKE. Absolutely. It is cost, schedule, and performance. It is our ability to track to the milestones that we have developed.

Mr. O'ROURKE OF TEXAS. Anything in that report that you do not think has been addressed or resolved?

Secretary O'ROURKE. There are items in that report we will resolve and continue to work on throughout the lifetime of this program.

Mr. O'ROURKE OF TEXAS. Any fundamental issue like the scalability of it, like the accuracy of information, like the fact that clinicians have quit out of fear that their patients' lives may be endangered? Any of that unresolved to your satisfaction at this point?

Secretary O'ROURKE. We continue to work with DoD to watch how they are resolving their—the things that have come up in that report and making sure that we learn those lessons.

Mr. O'ROURKE OF TEXAS. The question that the Chairman asked about how information would be accessed going forward once this is fully online, and the response about the Joint Legacy Viewer being embedded and the ability to see information through that, what—when this, if this is ever fully working, for servicemembers who are going to be transitioning out over the next 10 years, there will be no Legacy Viewer for their information. It will seamlessly transfer from DoD to VA to third party provider. Is that correct?

Secretary O'ROURKE. That is the intent of the program.

Mr. O'ROURKE OF TEXAS. For all three?

Secretary O'ROURKE. Absolutely.

Mr. O'ROURKE OF TEXAS. Including the third-party provider. Whose information will still be in the—be viewed in the Legacy Viewer 10 years from now once this is fully implemented according to the proposed schedule and budget in here?

Secretary O'ROURKE. Our intent is that everyone departing DoD, coming to VA, has a seamless transition and then they are able to use all of the VA capability that we have.

Mr. O'ROURKE OF TEXAS. Those veterans whose records appear in the Joint Legacy Viewer today, will they be in the Joint Legacy Viewer going forward, or will there be some fix to that?

Secretary O'ROURKE. That is the intent.

Mr. O'ROURKE OF TEXAS. Okay. To still be in the Joint Legacy Viewer?

Secretary O'ROURKE. No, to be in our system—

Mr. O'ROURKE OF TEXAS. To be fully dumped and—

Secretary O'ROURKE [continued].—fully integrated.

Mr. O'ROURKE OF TEXAS [continued].—the data fully integrated.

Secretary O'ROURKE. Yes.

Mr. O'ROURKE OF TEXAS. Okay. Mr. Chairman, I yield back.

The CHAIRMAN. Thank you, Mr. O'Rourke. Mr. Bilirakis, you are recognized for five minutes.

Mr. BILIRAKIS. Thank you, Mr. Chairman. Secretary O'Rourke, it seems to me that electronic health record modernization is as much a process restructuring and standardization program as it is an IT program. Would you agree with that?

Secretary O'ROURKE. Yes.

Mr. BILIRAKIS. Okay. Admiral Bono, same question.

Admiral BONO. Yes, sir. I fully agree with that.

Mr. BILIRAKIS. Okay. How much of MHS GENISIS has so far been in process redesigning exercise as opposed to an IT exercise, meaning writing code and installing hardware?

Secretary O'ROURKE. We are fully aware of the depth of change this is going to bring to our health care delivery system, and we are on the front end of working on restructuring those work flows and looking at what we have to change across our system.

Mr. BILIRAKIS. Thank you. Admiral Bono, which aspects has—what has been the most challenging part of it?

Admiral BONO. Yes, sir. I think that the two most challenging parts, and I am gratified to see that the VA is working on this up-front, is governance and change management. Certainly, the ability to make the decisions that are needed at the enterprise level to maintain that interoperability and the connection with the DoD effort is extremely important.

And I think that what the VA is doing to help make sure that governance structure and framework is in place is extremely important.

The second piece that is extremely important is the change management. And as Members and others here at the table has already identified, being able to involve the clinician right from the start is a very important part of that change management effort. And again, I see that what we have learned in our own efforts of deployment and the VA's initial steps to address that are very much in keeping with what we have learned.

Mr. BILIRAKIS. Thank you. Secretary O'Rourke, how much of the process redesign is Cerner involved in and how much is purely VA responsibility?

Secretary O'ROURKE. When it comes to this project, Cerner will be working with us directly to make sure that the process as we redesign it will work in their platform.

Mr. BILIRAKIS. Very good. Admiral Bono, the MHS GENISIS contract was awarded in 2015 and your testimony indicates its implementation will finish in four more years. That is a total of eight years, VA's schedule is ten years. Are you confident you will be able to finish on schedule? I know that is so important. If you are confident in that, how is the military health system, which spans the whole country, as well as overseas bases, able to do this relatively more quickly than the VA?

Admiral BONO. Yes, sir. So we will be doing—I feel very confident that we will be able to stay within our timeline that we have projected. Part of our deployment schedule provides that we will be able to do many of this in parallel as we have been able to apply some of our lessons learned. So there is a lot of synchronization and amplification that we will be able to do as we have put in place not only the lessons learned from our own personal experience, but also from the lessons learned that we are getting from those that are reviewing our progress.

Mr. BILIRAKIS. Okay, final question for Admiral Bono. You have already bought your version of the Cerner EHR and implemented it in your first sites. How did you decide to select some Cerner software packages and no others?

Admiral BONO. Yes, sir. That was part of our requirements process in which we put together those functions and capabilities that we felt that we most needed to be able to replace our Legacy systems.

Mr. BILIRAKIS. Very good. I yield back, Mr. Chairman. I appreciate it.

The CHAIRMAN. I thank the gentleman for yielding. Mr. Lamb, you are recognized for five minutes.

Mr. LAMB. Thank you, Mr. Chairman. I want to follow up first on a question by my colleague, Mr. O'Rourke, about integrating what you learned from the DoD failures into the rollout of the new system. And whoever is best to answer this, please answer it, but some of the specific problems that they saw in the DoD rollout were, for example, prescription requests coming out wrong and referrals not going through to specialists.

So just take those two specific issues, if you can tell us what you learned from the DoD rollout and how this program is being changed to prevent something simple like that from happening.

Secretary O'ROURKE. Absolutely. Let me let Dr. Ashwini answer that.

Dr. ZENOOZ. Yes, absolutely. So one of the big lessons learned that we had was that, again, front live providers have to be involved not only in designing the process but also in the testing process. I cannot emphasize that enough for myself every day, as well as the people that are involved on the team. Our users will be an integral component of the user testing process to ensure that all of this works before we go live, that patient safety is accounted

for, that we check off all of the boxes to ensure safety is maintained and the process works if not as well as but better than the way it works today.

Mr. LAMB. Okay. So how will you ensure that a prescription is always going to come out correctly? Do you do like a drill or a rehearsal or something with fake patients, basically, and your users on the other end to make sure that it works or—explain to me how that is going to happen.

Dr. ZENOOZ. Absolutely. So the process is testing is where this happens. We not only test the technology to ensure that all of the technology behind the scenes works so that the prescriptions are going where it needs to go, but also that the correct prescriptions for the right patients are going to the right place at the right time.

So that not only involves the technical component, but also the users, like I said, on the front end to ensure that all of those boxes are checked. Only when you have all of those things checked off that says the process is working appropriately and that patient safety is maintained, can you go live in that process. And we have that accounted for in our testing process.

Mr. LAMB. Okay. Is that a different testing process than what the DoD used before they rolled this out the first time?

Dr. ZENOOZ. I am going to defer to—

Admiral BONO. We tested it through many instances of the different MTF's that we had in the Pacific Northwest. What we actually found, though, was one of the challenges for us is that we had different staffing models up there and we had not accounted for that in the program. We have since addressed that.

Mr. LAMB. Okay. So it will be a different testing and rehearsal process this time than last time is my question.

Admiral BONO. Yes. We have incorporated that.

Mr. LAMB. Now, Mr. O'Rourke, question for you about the VA budget. We just passed, and the President signed into law, the VA Mission Act which basically changes the funding for the Veterans Choice Program from mandatory to discretionary funding and creates an issue next year for the budget cap on the overall VA budget because there—this new funding that has now become discretionary and will count against the VA budget. Are you aware of the issues that could create for your overall budget?

Secretary O'ROURKE. We are aware.

Mr. LAMB. Okay. Are you concerned about the VA's ability to implement this project with the electronic health records given the constraints that are now going to be on your budget?

Secretary O'ROURKE. I believe the Congress has made it very clear on their intent on this project. So we have less concern about the execution side.

Mr. LAMB. Okay. Do you agree that although the contract is for $10 billion, there could be an additional $5 or $6 billion needed for infrastructure and project management?

Secretary O'ROURKE. We are aware of that.

Mr. LAMB. Okay. Do you agree that is not really accounted for in the current budget planning, especially with this new money from VA Choice going into discretionary funding?

Secretary O'ROURKE. I believe they have been very transparent with the requirements of this contract, both from the contract execution side—

Mr. LAMB. And I am not saying—I am not asking about the transparency. All I am asking about is do you believe that the money that you need, the additional $5 or $6 billion is threatened by this change in overall funding that is going to put a—

Secretary O'ROURKE. No.

Mr. LAMB [continued].—push you up against the budget cap?

Secretary O'ROURKE. No, I don't.

Mr. LAMB. So you feel fully confident that despite that change in the Mission Act that you will have the money you need to implement this project?

Secretary O'ROURKE. Yes.

Mr. LAMB. Okay. Mr. Chairman, I yield back. Thank you.

The CHAIRMAN. Thank you, Mr. Lamb. Mr. Poliquin, you are recognized.

Mr. POLIQUIN. Thank you, Mr. Chairman, very much. Mr. O'Rourke, thank you very much for being here and all of you for being here. I understand you are a graduate from the University of Tennessee. Our great Chairman also represents a terrific part of the State of Tennessee. I am assuming that neither one of you have been colluded about anything and you will be treated as directly as everybody else is on this Committee.

Going forward, let us take a look at this, Mr. O'Rourke, if you don't mind, since you are now the fellow sitting in the head seat over here. The reason why we are here today is because over a very long period of time, we have had over 100 different medical facilities that the VA is involved with, or owns, or runs, or whatever you want to call it. And they have, over time, created their own Legacy systems, their own IT systems.

Now, I am a very direct person and we love our veterans in the State of Maine that I represent. We have the first VA facility in the country, Togus, up in Augusta. However, I have never seen a part of our Federal government, to be very honest with you, Mr. O'Rourke, who is—tries to be less accountable than the VA. 385,000 employees. You get folks that—not you folks, of course, but folks that come before us and no one wants to take account.

You look at the Denver medical facility that is a billion dollars over budget and no one takes responsibility for it. So I have it up to here when it comes to a lot of these issues. So you look like a reasonable fellow, I just want to make sure that I am understanding that what we have had in the past when it comes to folks at the VA developing their own IT systems, to build their own bureaucracies to protect their jobs is not going to be a problem going forward. Give me confidence.

Secretary O'ROURKE. Sir, that is one of the most straightforward concerns that I have had when I looked at our IT office. In fact, that is the thrust of the work that we are doing right now since the previous executive in charge left was to go in and look and find where all of those instances are, remove the waste of our spending, and find each and every opportunity we have to reinvest—

Mr. POLIQUIN. Let's stop right there, Mr. O'Rourke, if you don't mind. My colleague, Mr. Lamb, mentioned just a moment ago that

it is a $10 billion contract. My understanding, it is a $15 billion contract over five years. What is it?

Secretary O'ROURKE. It is a $10 billion contract to Cerner Corporation.

Mr. POLIQUIN. Okay.

Secretary O'ROURKE. The mention—what Congressman Lamb was referring to is other infrastructure and personnel cost outside of what we will pay—

Mr. POLIQUIN. Okay. Thank you for clarifying that. Thank you, Mr. Lamb. I want to make sure I am looking at the right person so when you come before us in the future, if it is you, sir, you are the person responsible for getting this done, is that correct?

Secretary O'ROURKE. Absolutely.

Mr. POLIQUIN. Okay, good. There was another—I think it was Dr. Bono—Vice Admiral Bono, excuse me, a moment ago explaining that there needs to be deep cultural changes. What the heck does that mean to you because you are the head guy? What does that mean?

Secretary O'ROURKE. It means exactly what you described. When we have different hospitals creating different instances of IT systems, different groups that feel that they are not accountable to each other, to their veterans, to their leadership. Something that we addressed early on with the Office of Accountability and Whistleblower Protection of finding misconduct.

Sir, I can just tell you that the process under work right now in VA is to become more accountable to you. We have done unprecedented ways of becoming more transparent, providing data, whether it is online or—

Mr. POLIQUIN. And you know, Mr. O'Rourke, you have the ability to terminate people who are ill-performing, correct, or underperforming?

Secretary O'ROURKE. I have exercised that authority.

Mr. POLIQUIN. We have—yes, okay, good. We have given you that authority. The President signed that. You can do that. Okay, good.

I am guessing that somewhere in your office, you have a whiteboard, or you keep it on an IT system or a computer or some darn thing where you have a timeline, what you are going to get done, what the deliverables are, and how to measure that performance. Do you have that?

Secretary O'ROURKE. I have a 10 by 8 whiteboard in my previous office. They wouldn't let me bring that into the Secretary's office, but I frequently go back there to sketch out those timelines.

Mr. POLIQUIN. Great. Wonderful. And are—is your vender, Cerner, is that entity paid up-front to deliver product or does the deliverable have to occur and you sign off on it before they are compensated?

Secretary O'ROURKE. With a firm, fix price IDIQ contract, we have that flexibility. That is what we discussed earlier to make sure we can hold the contractor accountable. And if they aren't then we can counsel task orders or delay other task orders if we were looking at a performance issue.

Mr. POLIQUIN. Okay. And that is a fixed-base contract over 10 years. You know, it is hard to project as a business owner anything two years out, but ten years out is a long period of time. What con-

fidence level do you have you won't be coming before us asking for more money?

Secretary O'ROURKE. Our intent is to execute within the cost and schedule that we have today. To do that, we are making sure that our leadership is engaged personally, I am engaged. We have our senior leadership team meeting monthly and we have weekly updates to me on this project specifically.

Mr. POLIQUIN. Good luck to you, Mr. O'Rourke, and everybody, we are all behind you. But we are going to hold your feet to the fire.

Secretary O'ROURKE. Thank you.

Mr. POLIQUIN. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Poliquin, for finishing four seconds early. That is a first. I would not recognize General Bergman for five minutes.

Mr. BERGMAN. Thank you, Mr. Chairman. And you know, I feel listening here for the last hour or so, I feel compelled to say and I know you—we are all on the same sheet of music here but why we are here. We are here to provide quality results for our veterans over the long-term. It is no more complicated than that, but we can make life complicated if we allow the way we do things to get in the way.

We talk seamless, but historically bureaucracies walk a rice bowl silo mentality of self-preservation. We know that. Only through proactive leadership that establishes a culture of civil collaboration across all boundaries will we even begin to have a chance of success in the change management that you talk about.

People throughout VA, at all levels, must feel empowered to be part of solutions focused on results for veterans. I mean that is pure and simple. It is as quickly and short as a Marine can state it.

So having said that, Mr. O'Rourke, the Appropriations Act stipulates that the EHR modernization program be controlled and administered by the Office of the Deputy Secretary. We have talked about the steering Committee, we have talked about the governance, we have talked about the meetings. We also know that position is vacant right now.

So what is the plan here for the interim vacancy? Who has got the dot?

Secretary O'ROURKE. I do. And that will stay with the Secretary until we have a Deputy Secretary appointed.

Mr. BERGMAN. Okay. So you have the dot. How much of your daily time is it going to take to do this because we can only be in one place at one time as an individual?

Secretary O'ROURKE. Weekly briefings to me from this team on the status, the milestones, progress, cost, schedule. Every visit that we make to facilities, whether it is a communications mission, if it is somebody that is not actively involved in the implementation at this point. And then with those places that are actively involved, taking an on the ground look and being able to come back and have a perspective.

Mr. BERGMAN. Okay. Thank you. Admiral, you have a great deal of experience with operational and clinical standardization. The defense health agency was created in part to unify military treatment

facilities in the military departments. Please walk me through standardization—

Admiral BONO. Yes, sir.

Mr. BERGMAN [continued].—in the military health system.

Admiral BONO. Yes, sir. So we have taken an approach with standardization that first encompasses some of our back-office functions. That is those functions that are common to all hospitals across Army, Air Force, and Navy. Those would be things like logistics, facilities, education and training, and in this case health information technology.

So being able to deploy the MHS GENISIS has been a significant enabler for us to obtain standardization. And what that does then in standardization, if I could just use health information technology as an example, is using MHS GENISIS, the Cerner product as an enabler to help us drive towards more efficient work flows that put the patient right in the center and are responsive to their needs versus systems that have been responsive to the provider's needs.

Mr. BERGMAN. Okay. So what you learned—from what you have learned so far, can you compare and contract basically the military health system and the VA system? Are there specific crossover points or in other cases specific divides that there is no crossover?

Admiral BONO. Yes, sir. I believe that there are going to be some significant crossovers. And that is some of the things that we have already identified in many of our conversations, as well as in some of our earlier collaboratives.

Mr. BERGMAN. Thank you. And in an effort to beat Representative Poliquin, I yield back 50 seconds.

The CHAIRMAN. I thank the gentleman for yielding. And I want to thank the panel. I am going to a lightning round. And Mr. Lamb, one of the things that you brought up with the pharmacy. These clinicians are going to want to make a medical visit, which is what VHA is all about, as seamless and as good as they can. They want to make it quality. They want to make it a pleasant experience. People are intimidated when they come in and can be until they get familiar with the system.

So that would be our objective. And Dr. Bono knows this as an Admiral in the Navy, we in the military, and there are five of us all who are sitting up here, we will salute, and say yes, ma'am, and make it work, no matter how awful it is. And you are going to want to make that.

So when your wife goes in to get a prescription, all she may know is hey, it took me five minutes. I walked up and got it. There are a lot of people behind the curtain to make that happen. And what we don't want this system to do is make that harder for the people to do it. It will frustrate them, and they will leave, I am telling you.

I say this as a joke, but in much way, it is not, an electronic health record made we a Congressman. So people will search out something that is easier. So we have to make this as user friendly. And I know Cerner is here and will be on the next panel. My one question and one minute, I am going to yield everybody a minute if they want it, and I didn't get it answered. Maybe Cerner will do this, but—and Mr. O'Rourke, you may be able to answer this also.

We are spending a billion dollars a year to maintain the current Legacy system. When that handoff occurs, will there be any savings, or will that system still cost a billion plus to maintain the Cerner system each year?

Secretary O'ROURKE. Theoretically, that would be the cost savings once we have a fully implemented Cerner solution. That is what we have to work towards. That has to be our intent.

The CHAIRMAN. Is it—does it look like that can happen? I mean, where it—in other words, we replace a piece of technology, is it going to cost us just as much as what we had to maintain it? It is new. I mean, is there a contract afterwards? I know there are—you are going to have to maintain this system.

Secretary O'ROURKE. I am sure we would have to maintain that system. Whether it will cost the same as what we have today, I would suspect not.

The CHAIRMAN. Because the $10 billion and the extra $5, almost $6 billion is for the rollout, but after 10 years or whenever this thing is fully operational, you are going to have to pay—there is going to have to be a management contract after that, I am sure. And my question is how much is that money—how much money is that going to be?

Secretary O'ROURKE. We will have to take that question back, sir, and come back to you, but we will keep that in mind.

The CHAIRMAN. I yield to Mr. Walz, one minute.

Mr. WALZ. Just some yes or no, Mr. O'Rourke. Isn't it true the OIG has not received any information to date from the OAWP?

Secretary O'ROURKE. No, that is not correct.

Mr. WALZ. That is not true?

Secretary O'ROURKE. They have provided—we have provided them disclosures consistently.

Mr. WALZ. True, OIG has agreed to—by sending two staff members on May 2nd to review referrals but were denied access due to lack of reciprocity?

Secretary O'ROURKE. They were requested by us for—to have a meeting to collaborate with and then they requested that, unbeknownst to us.

Mr. WALZ. True that you conditioned access to the OAWP files contingent on OIG providing their files?

Secretary O'ROURKE. That is not exactly true.

Mr. WALZ. Right.

Secretary O'ROURKE. That was whistleblower disclosures to be shared under the statute.

Mr. WALZ. And I will state for the record that confidentiality was never raised by the IG to this office of talking to us until this testimony today, which I remind everyone was under oath. With that, I yield back.

The CHAIRMAN. I thank the gentleman for yielding. Dr. Dunn?

Mr. DUNN. Thank you, Mr. Chairman. I want to get a level of comfort. This is probably Dr. Zenooz. I was reading through the memos and the briefs there and I was seeing standardized work flow, and to me that meant standardizing the way the clinicians are using EHR, the way we enter and retrieve information. But as I kept reading on, it sort of morphed into a best practice's thing.

And I want to be reassured that what we are not talking about, this is not code for clinical medical practice guidelines, treatment guidelines. Tell me it is not code for that.

Dr. ZENOOZ. So work flows are the way we do business. And our goal is to involve our frontline clinicians to ensure that the way we want to do business—

Mr. DUNN. Treatment guidelines, you know what I mean.

Dr. ZENOOZ. Yes.

Mr. DUNN. Diagnosis related treatment guidelines.

Dr. ZENOOZ. So the EHR system does allow for collaborating with DoD to input clinical practice guidelines and have that be part of the clinical decision support.

Mr. DUNN. So that would be suggestions like the NCI guidelines, things like that.

Dr. ZENOOZ. That is correct.

Mr. DUNN. And this is not like this is the way you will practice medicine.

Dr. ZENOOZ. That is correct.

Mr. DUNN. You understand as a physician, I am sure—

Dr. ZENOOZ. That is correct.

Mr. DUNN [continued].—my concern here.

Dr. ZENOOZ. Absolutely. So our goal is if a clinician is ordering something, for example, and has the option to have decision support available—

Mr. DUNN. So my time has expired, but I do want to make sure that you understand that when we start doing top down treatment guidelines, you will treat this diagnosis this way, we always, always get it wrong. Reliably get it wrong. The government has proven that repeatedly.

Dr. ZENOOZ. Absolutely.

Mr. DUNN. I yield back, Mr. Chairman.

The CHAIRMAN. We always get it wrong. Correct. Mr. Takano, you are recognized.

Mr. TAKANO. Mr. O'Rourke, I want to follow up on my earlier questions. I understand that the Deputy Under Secretary role and the Deputy Chief Information Officer are the province of the VA, not the White House. It has come to my attention that prior to Dr. Shulkin leaving, that a Committee—an internal Committee of VA, was—has reviewed potential Under Secretary names and has already met three times and passed the name along.

Can you comment on that?

Secretary O'ROURKE. It—for the Under Secretary for Health?

Mr. TAKANO. Yes.

Secretary O'ROURKE. Actually, we have had three commissions over the past year to evaluate names for that position.

Mr. TAKANO. And that they have passed a name along, is that correct?

Secretary O'ROURKE. They did pass candidates along to the White House and I believe they weren't selected.

Mr. TAKANO. Mr. Secretary, I am just really concerned that there seems to be no urgency to fill these positions that are critical to oversee a $15 billion project.

Secretary O'ROURKE. I can tell you that we are starting a new commission—

Mr. TAKANO. And this is on you, not the White House.

Secretary O'ROURKE. Okay.

Mr. TAKANO. Thank you.

The CHAIRMAN. Ms. Brownley, you are recognized for one minute.

Ms. BROWNLEY. Thank you. I just wanted to get a clarification. I wanted to follow up on Congressman O'Rourke's question about the Legacy data being built in seamlessly to the Cerner. And Mr. O'Rourke, you said that was the goal, that is the intention to do it. Then I heard from the Admiral that you—within the DoD system that you have a portal, if you will, for the Legacy data, which sounds to me like you push that button and you get the Legacy data and it is not necessarily integrated into the system.

So is that true, Admiral, in terms of what the DoD is doing? So you have a different objective than the VA?

Admiral BONO. Thank you, ma'am, for letting me clarify. No, this is—we have the same objective, it is just that we are in transition. And while we are in transition, until we get onto the single instance of the electronic health record, we have to use some kind of bridging product that allows us to maintain visibility of it. So that is the Joint Legacy Viewer.

In DoD we are also using that because in some instances for our patients and our MTFs, not all of us have been deployed to MHS GENISIS yet, so that is an interim support.

Ms. BROWNLEY. Thank you. I yield back.

The CHAIRMAN. Thank you. Mr. Poliquin, you are recognized for one minute.

Mr. POLIQUIN. Thank you, Mr. Chairman, very much. Mr. O'Rourke, are we on schedule and on budget with this contract?

Secretary O'ROURKE. Today, yes.

Mr. POLIQUIN. Okay. And when did you start the contract? When did you start the project?

Secretary O'ROURKE. We started negotiating the contract May 17th of 2017.

Mr. POLIQUIN. Okay.

Secretary O'ROURKE. We signed it last month.

Mr. POLIQUIN. Okay, but you have started. You are not waiting. There is no reason to wait. You are moving forward.

Secretary O'ROURKE. We are moving forward today as you can see. We are putting together organization plans and milestones as we speak.

Mr. POLIQUIN. What keeps you awake at night that can cause this thing to derail and you have to come back to us and say it has been a failure or you need more money. We don't want that, either one of those to happen. So what could cause that to happen?

Secretary O'ROURKE. A lack of focus on cost, schedule, and performance. Any time you let your eye get off that ball, you are going to run into problems.

Mr. POLIQUIN. And you are not going to let that happen?

Secretary O'ROURKE. No.

Mr. POLIQUIN. Thank you, sir. I yield back my time. Ten seconds, Mr. Chairman.

The CHAIRMAN. I thank the gentleman for yielding. Mr. Lamb, you are recognized for one minute.

Mr. LAMB. Question about the risk score when it comes to opioid abuse risk. I think that was you, Doctor, that talked about that. Can you just tell me who created that score and a little bit more about the criteria, as much as you can in this short time frame?

Dr. ZENOOZ. Sure. I cannot remember the name of the company that Cerner uses, so I will have to take that for the record. VA internally has its own risk scoring system. We will be evaluating to see what efficiencies we can take out of that system and incorporate it into the Cerner system.

But what we have seen so far is that all of the PDMPs that participate—all of the states that participate in the PDMPs are available to the system to aggregate and create the risk score. And the military health system, if they participate, or if they share data with—when they share data with the VA, will be aggregated and incorporated into that scoring system.

Mr. LAMB. Got it. If you wouldn't mind just following up and letting me know who it was that created that, I would appreciate it.

Dr. ZENOOZ. Absolutely.

Mr. LAMB. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. I thank the gentleman for yielding and there are no further questions. So Mr. Secretary and Dr. Bono, you—thank you for being here. It has been very helpful and very information and you are now excused. Thank you.

The CHAIRMAN. On the second panel, we have again Mr. John Windom and Mr. John Short and Dr. Zenooz, representing the VA. They are accompanied by Mr. Zane Burke, president of Cerner Corporation. And on the panel, we also have Dr. David Powner, director of IT Management Issues for the Government Accountability Office.

For those of you all who have not been sworn in, would you please rise and raise your right hand?

[Witnesses sworn.]

The CHAIRMAN. Let the record reflect that the witnesses have answered in the affirmative. Mr. Powner, you are recognized for five minutes.

STATEMENT OF DAVID POWNER

Mr. POWNER. Chairman Roe, Ranking Member Walz, and Members of the Committee, thank you for inviting GAO to testify on VA's EHR modernization and our ongoing work for this Committee looking at VistA.

Our review is looking at both the cost to operate and maintain VistA and exactly what VistA is. Understanding the costs are important since VistA will be around until EHRM solution is fully employed. Knowing the full scope is important to inform the planning of the EHR modernization.

This morning I will cover the cost of VistA, what VistA is, and provide suggestions as the VA proceeds forward with the EHR modernization.

The VA currently spends about a billion dollars a year to operate, maintain, and enhance VistA. Major components of these costs include interoperability efforts, electronic health records, and infrastructure costs for hosting and storage. Tallying these costs is not an easy exercise since it entails contracts, internal labor, major

programs, and components funded by both VHA and OINT. These detailed costs over the past three fiscal years are provided in my written statement.

Now turning to what VistA is. Understanding the full scope of VistA is essential to effectively planning for the new system. There is no single source that fully defines the scope of VistA. However, VA has undertaken several analysis to better understand it. One that I would like to highlight is their application view of their health IT environment.

There are over 330 applications that support health care delivery at a VA medical center. About 128 of these are identified as VistA applications and 119 have similar functionality to the Cerner solution. The bottom line here is that it is important to know how much of VistA the Cerner solution will replace. Some analysts say around 90 percent. The application view suggests a much lower percentage.

Mr. Chairman, we want to avoid a situation down the road where there are surprises as to exactly what the Cerner solution is replacing. This understanding of VistA is further complicated by unknowns caused by individual facility customization that has occurred over the years.

Now turning to the 10-year, $10 billion Cerner contract that was awarded last month. It is important to note, as mentioned prior, that the EHR program is expected to cost about $16 billion because VA estimates about $5.8 billion for project management support and infrastructure over the 10 years. Not included in the $16 billion are all internal government employee costs. So the 10-year price tag is even higher.

I want to be clear here that going with DoD Solution is the right move, but given the complexity and cost, and the fact that both VA health care and IT acquisitions and operations are both on GAO's high-risk list, this acquisition needs to be effectively managed.

My written statement highlights several detailed practices that we have seen applied to successful IT acquisitions that are important to the EHR program going forward. But there are some big-ticket items that are critical to pulling this off. These are number one congressional oversight. We commend this Committee for proactively establishing the technology modernization Subcommittee. Continuous oversight of the EHR program will make a different in ensuring that it is executing according to plans and budgets.

Number two, executive office of the President involvement. The White House involvement can elevate the importance in accountability here. The current administration has several EOP offices who involvement can help. We also think that the Federal CIO's involvement is important.

Number three, governance in building a robust program office. Both interagency governance with DoD, as planned, as is the governance process that reports the VA's deputy secretary. It is important that this governance structure has a strong CIO role and that it ensures better collaboration between VHA and the CIO shop than has historically occurred.

Also, we have seen governance structures embed the contractor to create better transparency and teamwork. In addition, if a gov-

erning structure is robust and open to risk. We have also seen congressional and GAO staff welcome to attend these meetings. We believe this is a best practice and frankly save agencies time in responding to oversight questions.

Number four, business change management. A major issue with Federal agencies is adopting commercial products and their unwillingness to change their business processes. For the EHR initiative, this entails clinical work flows. This is definitely a high-risk area for VA.

And finally number five, building an appropriate cybersecurity measures and optimizing infrastructure. VA has cyber challenges that are important to this new EHR acquisition, including controls associated with network security and controls for monitoring systems hosted by contractors. Regarding infrastructure, these costs appear exceptionally high with the VistA program and VA needs to consider a more comprehensive data center optimization strategy that coincides with their new EHRM approach.

Mr. Chairman, this concludes my statement. I look forward to your questions.

[THE PREPARED STATEMENT OF DAVID POWNER APPEARS IN THE APPENDIX]

The CHAIRMAN. Thank you very much for your testimony. Mr. Burke, you are recognized for five minutes. We will go to questions Bill tells me. So I will go to questions.

First of all, I would like to start, and I appreciate you all being here. And Mr. Burke, help me with some back of the envelope math here. The EHR modernization is going to cost almost $16 billion over 10 years, $1.58 billion per year. According to the GAO, the cost to run VistA is about $1 billion a year.

And again I asked this a minute and the Secretary couldn't tell us. What does the cost to run the Cerner EHR look like after the 10-year implementation? And does the total cost of Cerner drop below the billion a year, is that just going to be the cost to keeping this up and running? Or does anybody know that answer yet?

Mr. BURKE. Mr. Chairman, thank you for conducting this hearing and our participation in it. As it relates to that question, we do believe that the costs will be less than the ongoing costs of the current VistA system. Several of those items that reflect some savings will be around the fact that today the VistA instances—over a hundred different instances. You have a number of different training. The people, the upgrades, the updates, those kinds of things are significantly more expensive in those models. So we do anticipate taxpayer savings over time.

The CHAIRMAN. Well, 10 years is a long time. I was at Oak Ridge national labs a couple of weeks ago. They spent $200 million on a supercomputer in 1996. They told me that now your iPhone has as much computing power as that 200. So in 10 years, who knows how much the technology is going to—it is going to change dramatically. I can tell you from the rollout that DoD is doing right now in the northwest and what VA is starting in October is going to look totally different in 2028.

So I think there will be added cost and they—I don't see how it couldn't be more cost. Dr. Zenooz, one of the things that—and

again, Dr. Dunn and I will continue to go back to this, is how important it is to make an EA—I hear this all the time, to make the clinicians job easier and more efficient instead of just—just punching boxes and entering data.

You know, that is what we feel like we are now. And I understand that in some respects and VistA, believe it or not, people kind of liked that system. They are used to it. So we are asking the clinicians and people, 380,000 people to make a gigantic change in the way they do their business right now.

And is it designed around how people want to do things, not necessarily the most efficient way. And you have to configure the EHR from the ground up, not the top down. Dr. Dunn just mentioned that. And that starts by collecting input from really thousands of people who you—nurses, and doctors, and supply technicians, and all that, scheduling people. All of those have ideas and many of them good ideas. Are we doing that or are we just turning that into a check the box and we are going to go on and do exactly what Cerner has already laid out?

Which is it going to be?

Dr. ZENOOZ. Thank you so much. As the—in my role as the functional champion, change management obviously is the number one priority for me. And I recognize as a clinician that burnout because of checking boxes, as you say, is a key reason why people get frustrated with this process.

So we have ensured from the very beginning that we have front line folks involved in this process, in the requirements process. So not just the doctors, and the nurses, and the dentists, but also the medical support assistants, the schedulers, etcetera, supply chain folks sitting at the table with us to put in the requirements for this process.

They will be integral in designing the work flows to ensure that it is both efficient and meets their needs. I mean, we have to look forward to make sure that we are no just doing things current state, because we understand in VA that there are efficiencies to be gained. But at the same time, we will make sure that we take in best practices and work with our front-line folks to design the system that works for VA.

The CHAIRMAN. What we are doing is we are making data entry people out of our clinicians. And we have—we are doing, I think, a pilot program now on scribes just to help let the doctors and nurses be doctors and nurses. And then a few years—several years ago when my wife was critically ill in the hospital and I got to sit there and watch a system, not as a physician going around making rounds, but as a patient, I saw the clinicians and the nurses spend more time entering data than actually at the bedside.

That is not good. That is where technology has not helped us. It has not made quality better. It has not done any of that. So I would strongly encourage you to make sure that you include all of these people that are going to be using it.

And then the other thing, I think, was said by the Admiral Bono was that you have to train people on what you are going to use. I don't think DoD actually did that to start with. And you have to have them well trained because it is going to be a very anxiety-producing incident when we roll this out. The next 18 months, if I am

at—if I am in the northeast, if I am in Washington State and I am at a VA, I might want to transfer to Mountain Home.

So I now yield to Mr. Walz.

Mr. WALZ. And thank you all for being here. Mr. Powner, you talk about the governance board. It sounds like you are pretty confident they are standing that up and you are—my request was is that you be involved as you say you are and that you be involved in those quarterly progress reports. Do you feel at this point in time that is one track and you feel comfortable being part of that team?

Mr. POWNER. Yes, we feel that is important. We have experience doing this with other modernization efforts too, when you look at some of the things that have gone on like at IRS and other agencies. We have been embedded in some of those governance processes. And, again, if you are confident in your governance process and I have talked to Mr. Windom about this, he is confident, and I think he welcomes us there. I think it—it saves time for everyone.

Mr. WALZ. This is really encouraging, and I think that is where you saw the line of questioning. There is always another partner at the desk with us on this because oftentimes you ask us to implement the IG findings, the IG that does that. It is obvious that the IG is not a welcome partner at this point in time. There is open hostility. It is no secret to anyone here. And that is the point we are trying to get you.

In your experience, how important is it from those IGIs in these types of projects and implementation?

Mr. POWNER. Well, I think both GAO and IGs need to have access to the right information and timely. I will say from GAO's perspective, we get access. Historically, it has been slow. Okay? We get data but it is slow. But I will say Mr. Short and Mr. Windom, they have been more responsive than others in the past, but we—in needs to be timely. We don't have time to be slow here.

And the bottom line is you got it or not, don't create it.

Mr. WALZ. This is a—

Mr. POWNER. If you are creating it, you are not managing it.

Mr. WALZ. Yes, this is a new dynamic, though. It is not just a slowness or whatever. There is a reinterpretation of what we have to do and what we don't have to do. There is a whole new dynamic at play here with the secretary basically saying I am in charge with you and I will tell you when you investigate. That is what is different here.

And at the start of a project like this, I cannot stress enough that I think that is your fatal flaw if this is not fixed, addressed, and cleared up immediately because so many things have come out of that IG. So I appreciate you being there.

Mr. Burke, congratulations. You got a $10 billion contract and now you have got a whole bunch of partners. So we are here to ask how you interface on this. How do you see the role of this new Subcommittee that is set up with the responsibility to the veteran and the taxpayer, and you as a private entity that is providing a contract and a service to improve veterans' health care, to do is what is needed for our warriors, but rightfully so, you have a financial stake, as you should, to make this work? How do you view what

we are setting up here and how that interaction would work and how you would view our request for information in the appropriate way to find out where we are at?

Mr. BURKE. We view it as part of an appropriate governance model. So we are very excited actually about this Subcommittee and think that it is a great approach. Our obligation is to serve the veterans at the end of the day. And we want to bring seamless care, help the clinicians who serve those veterans, and have them have the most effective means possible to do that. And so we view that very positively.

Mr. WALZ. I really appreciate that. And I know your team. This was months ago, way before this was going when I wanted to come up to speed on different systems and you set really good people out who sat down with a layman to look at how this would work with myself. Dr. Roe knows a lot more about this and understands this. I represent the area of Southern Minnesota where the Mayo Clinic is. So I am familiar with their electronic record, their switch to Epic, and looking at all of that.

So I said from the very beginning, though, I really want to make note that your team was very open, they were there. They were talking about things that worked and didn't work. They were projecting ahead of potential problems that may arise. And I think that openness, the transparency, that seeing us as partners in different eyes on this to the same goal is really healthy. So I am grateful for that and I yield back.

The CHAIRMAN. I thank the gentleman for yielding. Dr. Dunn, you are recognized.

Mr. DUNN. Thank you, Mr. Chairman. Mr. Burke, welcome to our panel. I look forward to working with you. I am the Chairman of VA Health Subcommittee, so I think we will be seeing a lot of each other over the next few years.

What—I want to address a question of work flow counsels right now that are doing the mapping and the work flow standardization. What is Cerner's interaction with them at this point?

Mr. BURKE. We are just beginning that process. So the teams are coming together. The plan is basically we will work with the VA. And we will also bring other third-party industry partners that are industry experts in that space and the VA will supply the leading folks on their side to be part of those counsels as we move forward.

Mr. DUNN. Okay. So you have an immense amount of experience with EHR's. I do too. I am one of your clients. I want to know how you are making—to Dr. Roe's point, how are we going to make this a not frustrating—a productive interface for the—for all of the clinicians: doctors, nurses, everybody. How do you do that? Because I can tell you, there is a lot of frustration.

Just as a point, last—two weeks ago there was an article that came out and said that the average physician in America spends 53 hours a year just logging onto his EHR, 53 hours a year longing on. Help—make me feel better.

Mr. BURKE. Well, first off here, and it is an appropriate question to ask is the process by which we will go forward and come up with best practice. We will bring the best practice. The buy in from the clinicians is incredibly important. We will do—together, we are

doing current state analysis. So what do the clinicians have today and then do a crosswalk, what will it look like in the future.

So the set of expectations, we understand if they already have certain capabilities. Will they get enhanced capabilities? Are there elements where we will be challenged? We try to understand those kinds of things up-front so that we can do that work, along with those best practice elements.

The other side that I would look at is as a company, our number one priority is the clinician experience. And unfortunately, EHRs have become really box ticking exercises for the clinicians. And it is the little—it has reduced the time with the patients overall. And our obligation as an industry is to come forward with other technologies, which make it where people—where the clinicians can actually spend more time with the patients. It can be much more natural in the work flow and those kind of things.

And over time, what the VA has done has really contracted for those upgrades to be part of the solution set. So as you think about the go forward spaces, absolutely the EHR of today will be different—the EHR in the future, the VA is contracted for those upgrades. That is part of the process—

Mr. DUNN. Do you currently have biometric log-on's?

Mr. BURKE. That is part of the capabilities.

Mr. DUNN. So that can if it works, you can make that a lot faster?

Mr. BURKE. Correct.

Mr. DUNN. Of the $10 billion contract, how much is hardware and how much is software?

Mr. BURKE. I am sorry, sir. I would have to get back to you on exactly—that is—

Mr. DUNN. Does it include hardware?

Mr. WINDOM. Sir, we have acquired software and related services from Cerner Corporation. Things like maintenance, software updates, installation—

Mr. DUNN. I am asking, you know, do the laptops and things, are they included in that?

Mr. WINDOM. That is part of our infrastructure buy. Cerner is not buying those.

Mr. DUNN. So outside of the $10 billion, there is a whole lot of computers to be bought?

Mr. WINDOM. That is why the $16 billion number, $10 billion is allocated to Cerner—

Mr. DUNN. Okay, so it is in the other $5.8 billion.

Mr. WINDOM [continued].—for the Cerner contract. $4.59 billion for infrastructure upgrades that would include that type of hardware and then 1.2 billion for program management oversight.

Mr. DUNN. I was just trying to get a sense of where that was located. That is very good. So I am getting short on time, but I do want to leave—Mr. Burke, we are happy to work with your people. We are going to be working with them. We want to work with them up-front. We want to make sure that you have got a system that is palatable to the people who are actually using it.

And I know you know in your business that is really not a very common thing. We all have a love/hate relationship with REHRs. I have spent literally millions of dollars on EHRs. And I was kind

of hoping I wouldn't have to do that when I got to Congress, but now I went from millions to billions.

Mr. Chairman, I yield back.

The CHAIRMAN. I was going to say you are spending billions now, not millions. Mr. Takano, you are recognized for five minutes.

Mr. TAKANO. Thank you, Mr. Chairman. Mr. Powner, you in the opening testimony said something about the percentage of VistA that needed to be replaced or addressed varied, can you expound on that a little more because I want to understand what you are saying?

Mr. POWNER. Yes. So there are a couple different views when you look at what VistA is. And you can define it in what is called modules. And the module view says that the Cerner Solution will replace about 90 percent of what VistA is. But if you take an application view, it is much less. So that is why it is a little confusing. I don't have an exact number for you, and I do think the VA has attempted to look at this.

But again, I think what is very clear here is similar to how Mr. Windom just answered this question. What is in the Cerner contract and what isn't? And then what is in the $5.8 billion? You don't want surprises that you have got $10 billion here and $5.8 billion here to cover infrastructure and program management and you find out there is another $2 billion outside of that to implement the solution.

That is still a little fuzzy in our mind. We have a report that we are currently working on for this Committee that we will be hoping to provide some more clarity on that.

Mr. TAKANO. Do you believe you—within GAO have the requisite expertise, the numbers of experts to be able to perform this analysis?

Mr. POWNER. That analysis, no. We are not performing—well, we are relying on VA's analysis on the specific applications and modules. But I have got experts that could say whether that analysis that VA is conducting is appropriate or not, yes.

Mr. TAKANO. And do we—do they believe that VA has the resources, the personnel?

Mr. POWNER. Yes, they have got the resources and the personnel. The problem is the—they have got a lot of unknowns because of the customization. I mean, I think it is very unclear. The best way to characterize it, there are all of these unknowns and how much of those—you don't know what you don't know. And when these specific site reviews that are currently ongoing are going to shed a lot more light on that.

Mr. TAKANO. So there is kind of a scan of all of the different sites and what individual customizations occur in those sites and—

Mr. POWNER. Yes, exactly.

Mr. TAKANO. You said it could be up to 90 percent, what is the other view? How much—

Mr. POWNER. Well, the other view is like in the 50 percent range. But again, we think that application view and tells a little more than VistA, so it is hard to compare the two. But I will get back to this question about long-term post 10 years about the O&M cost. I sure hope that it is a hell of a lot less than the $1 billion that we currently spend.

We have got standardization, we won't have an old language. And we can save a lot of money in the hosting arena. I can tell you the data center optimization initiative that the Federal government undertook, VA is one of the worst agencies on consolidating and optimizing their data centers. This is an opportunity to do that right with the Cerner implementation.

Mr. TAKANO. And so on balance, you believe—you stand by the decision to go with the, as you said, DoD's solution, right? I mean, there were people who were advocating—

Mr. POWNER. No, we advocate go with a common solution and go with a commercial product. We have advocated that all along because you have got to get there eventually or you are—VistA, it is just long-term it is going to be more and more to maintain.

Mr. TAKANO. Mr. Burke, I know that the emphasis, and my colleagues were all excited about the potential of integrating to interoperable degree these systems—the VA system with the DoD system. I am also concerned about the interoperability with the non-VA providers because that is a significant part of what we do.

And I am concerned about the idea of portability of data, patient data. And I think viably that data belongs to the patient. But I don't believe that is how even the private sector operates, that we have proprietary behavior among the other EHRs out there. Is this an opportunity for the VA to be a leader in this case? And I will just stop and let you comment on what I have raised here.

Mr. BURKE. I appreciate the question. It is absolutely a space where the VA can be a—is—we believe will lead the country on this side and both the DoD will help in that perspective.

I have a personal belief that is the same as your, is that the personal health record ought to be mine, ought to be yours. As part of that, we will actually be offering personal health record for free to the—in terms of any one of our clients in that space. And we announced that probably nine months ago, in that realm. We participate in all of the HIEs and all the connections. We also believe that other technologies will be written, that will need to go on top of our platform. And so making our platform more open in that perspective is also important.

So interoperability/openness is part of the foundational elements of the contract and really what we anticipate doing both with the DoD and the VA.

Mr. TAKANO. Mr. Chairman, I look forward to this new Subcommittee you are setting forward because I think we can help the American people understand what is at stake here in terms of the potential—greater portability and the VA's ability to leverage its position with regard to the other EHR systems that are out there. I yield back.

The CHAIRMAN. Thank you for yielding. Mr. Powner, I hope you are right, but my experience in the private world was that I always spent more and more on technology, not less.

Mr. Banks, you are recognized.

Mr. BANKS. Thank you, Mr. Chairman. Mr. Windom, how did you select the Spokane, Seattle, and American Lakes as your initial implementation sites? And was this because the defense health agency had already selected nearby sites or did VA reach this conclusion independently?

Mr. WINDOM. We had an ongoing negotiation with Cerner Corporation as part of our contract award actions that took place this past May. And so as we sit down and we negotiate parameters that are going to be cost drivers and variables within the framework of that negotiation, the economies of scale associated with labor were one. DoD was in that region.

Negotiating on behalf of the taxpayers and our veterans, I am always conscious of what we are going to pay, especially and still with an eye on not compromising the care of—to our veterans. So economies of scales of labor were introduced by Cerner Corporation and going to the Pacific Northwest.

In addition, that foundational issue of interoperability. If we were in the region with DoD, that is a quick way to test whether our interoperability strategies work. And so being in that same region, to me, demonstrated one of the major premises of the D&F, the determination and findings, that were at the forefront of our efforts, which was interoperability.

So we look forward to demonstrating that in the Pacific Northwest once we deploy there. But that is part of the terms and conditions that we agreed to and with a focus on economies of scale with labor and also interoperability objectives, sir.

Mr. BANKS. Have you been to each of the initial implementation sites?

Mr. WINDOM. Sir, I had the fortunate opportunity to lead the DoD effort. I was the program manager overseeing that while I was still on Active duty in the Navy, so I am now on the VA side. So the answer to your question is I have been to those sites, I have—

Mr. BANKS. But not since they were selected as the initial implementation sites?

Mr. WINDOM. Not since they have been selected, not since I have been working with the VA, I have not been to those sites.

Mr. BANKS. What about our other VA guests, have you been to all three?

Mr. WINDOM. Mr. Short has been there.

Mr. BANKS. Mr. Short?

Mr. SHORT. I was at the Fairchild go-live when—

Mr. BANKS. And Doctor?

Dr. ZENOOZ. I have been to other sites in that area, but the particular site. I have worked in several VAs—

Mr. BANKS. So you have not been to the initial implementation sites?

Dr. ZENOOZ. Not to the initial sites. I have visited Seattle, the city, the Seattle VAMC, but not in this capacity.

Mr. BANKS. Okay. So, I just want to clarify, Mr. Short, you have been to the initial implementation sites since they have been the initial implementation sites?

Mr. SHORT. The DoD sites when they went live.

Mr. BANKS. The DoD sites.

Mr. SHORT. We went through them as they brought in new patients and processed them, and we went through their training facilities, their war room, went through all that.

Mr. BANKS. Okay.

Mr. WINDOM. Sir, I just want to make sure I am clear. We just characterized our initial visits to the DoD sites.

Mr. BANKS. I understand.

Mr. WINDOM. Our initial operating capability sites we have visited as part of our pre-screening efforts associated with establishing them as the sites to be deployed to.

Mr. BANKS. I apologize. I am easily confused, I suppose. So do you believe that the IT and clinical departments at these Medical Centers are sufficiently strong, or will the VA be making additional investments in them to prepare the implementation?

Mr. WINDOM. Sir, they deliver high-quality care today. I can't emphasize the change-management strategy that we are about to subject them to and how difficult that is, so I am going to defer to the clinician, because she has got the pulse of the people on the ground and she can give you more of a characterization.

Mr. BANKS. Doctor?

Dr. ZENOOZ. Thank you. So we have been working with the VISN director in that area since the sites were selected and we have been working with them to ensure that they will have the staff that is required. We have identified change-management leaders on the ground, executives as well as informaticists that will be participating in this project. Several of the folks are involved on my team directly and have received the appropriate change-management training.

If we go to the—not if, when we go to the site review and identify any gaps, we intend to address that immediately, so that by the time of go-live, which is 18 months from October 1, they will be ready for what is coming.

Mr. BANKS. Doctor, are there any discussions at all occurring about changing the implementation sites, to your knowledge?

Dr. ZENOOZ. I think we are always evaluating what is best. We have had several discussions to see if we should be looking at other sites, but we have always been talking about it from day one to ensure that we are going to the right place. As we evaluate leadership, informatics leadership, IT leadership, executive leadership—

Mr. BANKS. So, yes or no, are there conversations about changing the implementation sites?

Dr. ZENOOZ. We have had these conversations since day one. So, yes, we are continually evaluating, absolutely.

Mr. BANKS. Okay, my time has expired.

The CHAIRMAN. Thank you.

Ms. Brownley, you are recognized.

Ms. BROWNLEY. Thank you, Mr. Chairman.

Mr. Burke, I wanted to ask you, this might be an elementary question, but it relates to the interoperability issue and the concern about being compatible in the community. It seems to me that Cerner, Epic, nobody has been able to achieve interoperability so far. So it seems to me that—I get that we will be able to communicate with DoD, being the same system, but to be able to go out and communicate with the other systems out in the universe, it seems to me like we are going to have to create new software, a new system that has not been identified yet to be able to do that, so we are going to have to invent somehow to make that possible.

Mr. BURKE. It is a great question. Historically speaking, there were a lack of standards as it related to data flowing between systems, and so there were some technical elements between different

systems. And there is, interestingly, almost 200 different EHRs out there between the ambulatory side and the acute side. And beyond just the ambulatory and acute, there is the full continuum of care that ultimately, we need to connect.

There has been quite an evolution of those standards, which has been very helpful, and part of that has been part of our conversations as we paused in the contracting process was to go through that evolution and codify that in the contract to say what is possible today and then what is the art of the future tomorrow. And so there are parts of those elements which are let's go implement the things that we can go do today and then there are other elements in there that we are contractually obligated on a go-forward basis for enhanced interoperability as we move forward.

So I would look at it and say that technically speaking there isn't as big a challenge on interoperability today as there once was from a technical perspective. There are still business processes within the communities that create a different experience on the availability of that information, one of those is who actually does own the personal health record itself. And so that is one of the reasons why we are offering a personal health record for free for any of our clients, anybody that wants to do that, because we think that is ultimately one of the ways we move past some of those business model challenges in that space.

So it is a very complex arena. I can assure you that we have spent a significant amount of time on that. We are committed to this process and we actually do think it is an opportunity for the VA and the DoD to lead in the space, and I am convinced that we have the capabilities to go forward and do that. And VA also has the funding mechanisms by which to really enhance the community to want to participate in the process as well.

Ms. BROWNLEY. So to sort of break those barriers, if you will, is it going to require the cooperation of the other electronic health records out there to be able to get to the ultimate, as you said, the art of the future? Is it going to—is that the requirement or is it, you know, some really IT person back in a room creating a system that is going to, you know, encompass all these other systems out there to make it compatible?

Mr. BURKE. Today there is an organization called CommonWell, which is a not-for-profit interoperability group that actually is committed to standards, which is it has over 50-plus different members from the EHR community that have agreed to code their solutions to a certain spec. And so that has been an industry-led element, we were one of the founding members of that organization.

In addition to that, that group, CommonWell, is what is called a Care Quality Implementer. So it is a second group that really has a set of standards which connects my major competitor and as they are not part of the CommonWell standard, but they are Care Quality standard.

So CommonWell will do the implementation, so it should connect all those pieces there. It will—

Ms. BROWNLEY. But if they don't succeed, we don't succeed?

Mr. BURKE. That is part of the dynamic of the interoperability side. The pressure side coming from the providers and their clients will be quite significant in that—and I am in a spot where I think

I should defer to Ash and let her communicate as some of the sticks that the VA has for compelling some of that in the community care.

The CHAIRMAN. Just to—

Ms. BROWNLEY. My time is up.

The CHAIRMAN [continued].—let you know, one of the big mistakes we made in electronic health record was that we didn't make them where there is the same platform look. Everybody, whether it is Cerner or Epic or Allscripts or whomever, they all silo their information, because information is money. And I do understand—

Ms. BROWNLEY. They have to know how we are actually going to do this—

The CHAIRMAN. Yeah, and it is incredibly important to be able to share this data. And I agree with you all, the person's health record is whomever the person's health record is. It is yours, Mark, or mine or whomever's record, I totally agree that is who owns it.

Mr. Poliquin, you are recognized.

Mr. POLIQUIN. Thank you, Mr. Chairman.

Doctor, use some of my time right now to go ahead and answer your question or answer the question that Mr. Burke threw over to you.

Dr. ZENOOZ. Absolutely. Interoperability is not an end state, it requires constant care and maintenance, and it is not just you get to a certain data element or you share something, and it is done. Users are going to continually ask for more and more things to be shared for the providers to provide adequate care and patients are going to want that data available to them.

For that to be possible, I think there are a couple of different elements that you need to address, one is the technology. As technology advances, we need to ensure that VA keeps up, and it is our intent and part of our contract to keep up with that through innovation, through adoption, et cetera. Number two is policy and legislation, which is very important. I know that Congress had pushed forward on information blocking to ensure that that ends, that we share more information across the system, but obviously that can be expanded, as you have said. And, number three, I think the VA will participate and engage directly with the Office of Community Care and the Community Care networks that we contract with to ensure that we get as much information as possible. And not just limited to certain data elements, whether it is allergies or medications, et cetera, that we get as much information as we can and need to provide the adequate care that is necessary.

So I think it is a three-pronged approach.

Mr. POLIQUIN. Thank you, Doctor, very much.

Mr. Burke, congratulations for your company winning a $10 billion contract over a 10-year period of time. Your job, and you know this better than I do, is to deliver a project that works, on budget and early, and I am going to be one of the people on the Committee that is going to hold you accountable and everybody else that is involved.

That being said, I would love to have you comment on this, sir, if you don't mind. I think you have two problems, one of which is convincing people that it is better for them to use this instead of a flip phone, that is one. That is the technology piece that I am

sure you folks can get to. And the second one is one I think is more significant and I would love to hear your comment on this, is how do you convince the people at one of the—arguably the largest bureaucracy in the world, or one of them, to do something differently that might, at least they might have the perception it is going to threaten their job. Because they have built these Legacy systems throughout our country that are incredibly expensive, they don't talk to each other, so our veterans are being hurt, but now you are asking them to do something entirely different, not only using different technology as time goes on and maybe now, but also threatening the bureaucracies they have built up in the protection of their jobs. How do you tackle that problem?

Mr. BURKE. Well, as you described, the technology works, it is just really these projects are very complex and this will be a significant undertaking, and all of these kinds of projects have some what I call white-knuckle moments in them and I would anticipate that this will have a handful of those.

What I do feel good about is that we have a governance model to address those and one of the key, you know, reasons for success or failure.

Mr. POLIQUIN. Give us an example.

Mr. BURKE. Of when they work well?

Mr. POLIQUIN. Give us an example of how you are going to be asking one of the 385,000 employees at the VA to do something different that they will embrace, even though they might perceive that it threatens their job?

Mr. BURKE. Right. It is a continual sales process, as I describe it, which is we legitimately go out and meet with those individual groups and you are actually continuing to sell them, here are the advantages. It is why it is really critical we do this cross-walk properly.

We did have an opportunity as part of this contracting process to do something different than there was in the DoD process, because the DoD process was a response to a request. In this case, this was a direct to contract. It allowed us to work together for the past year to really learn and understand what each one of the—what really are the hot buttons here—

Mr. POLIQUIN. Now, the DoD is ahead of the VA in this whole scheme and how are they doing?

Mr. BURKE. I believe that they are doing well. Like all complex projects—

Mr. POLIQUIN. Are they on time and on budget?

Mr. BURKE. To date, they were on that side. We think we will be able to stay on time and on budget—

Mr. POLIQUIN. Good.

Mr. BURKE [continued].—as it relates to that and in that perspective. But I do feel like that the teams that we have put together and how we will go about the sales process and the collaboration will be effective here. It is critical we get the right people to the table. When these projects do well, you have the key clinicians that people look to; when they don't do well, it is done by a Committee, that it is not part of those that are seen as maybe the informal versus the formal leaders.

Mr. POLIQUIN. We wish you tremendous success, Mr. Burke, and everybody else involved. Thank you.

I yield back my one second of time.

The CHAIRMAN. I thank the gentleman for yielding back.

And just to show you how rapidly technology is changing, the new, the fastest new super-computer in the world at ORNL that calculates 200,000 trillion calculations per second, that is 10 to the 18th power. So that is how fast this technology is changing.

General Bergman, you are recognized.

Mr. BERGMAN. Well, given that bit of data, Mr. Chairman, I am going to reflect to you a bit of change that occurred about, oh, 18 to 20 years ago when we were designing the Joint Strike Fighter. And I had a chance to sit in a meeting where one of the initial design criteria was to design an entirely new aircraft around a 2,000-pound bomb. Think about how backwards that was. Someone very wise at the meeting said, how about changing the bomb? We are designing an airplane here, not a bomb carrier.

And that is exactly what we are doing here in different ways. We are designing a system of systems that is going to be flexible enough to take advantage of changing technology. We have used the word change management here several times. Well, part of the change management is to manage the changes in technology so you stay ahead of the power curve as best you can.

And as it relates to my district, one of the serious considerations we have in technology is rural broadband. Okay? We think about this system that we are going to design has to work for all of our veterans and all of our providers in those remote areas that as we transition the entire country to rural broadband, we have to realize that we don't want to leave anyone or any area behind.

Now, Mr. Powner, how do you assess VA's readiness to standardize their clinical and administrative workflow, how ready are they to do that?

Mr. POWNER. I think it is in its early stages right now and I do think that is something that this tech Subcommittee, I know it is a tech Subcommittee, but it is almost like the technology, it probably isn't as hard as the standardizing the clinical workflows, and I think that tech Subcommittee needs to have a hand-in-hand focus on that. Right now, it is in the early stages.

Mr. BERGMAN. So compare that to the task of mapping VistA?

Mr. POWNER. I think mapping VistA is further on down the pike. Again, that is close to being finished with the work that we looked up on mapping VistA.

Mr. BERGMAN. Okay. Well, your written testimony mentions VA's present efforts to standardize VistA. Medical Centers have to request approval to alter their version of VistA and apparently there have been roughly 10,000 of these waiver requests in recent years. What can you tell me about these requests? What does a typical request entail?

Mr. POWNER. So we don't have specific details on those requests, Congressman, but I will tell you this: there are thousands of those requests and that is too many when you start looking at the customization that needs to occur. And that is the whole reason why we are going the route that we are going here—

Mr. BERGMAN. So would you consider—

Mr. POWNER [continued].—we need to control that. If there is any customization, it needs to be a waiver, and you really need to control it or deny it.

Mr. BERGMAN. So in some ways is this an attempt for the tail to wag the dog, we would like to do it our way here locally and we want to get a waiver because we don't like change?

Mr. POWNER. Absolutely.

Mr. BERGMAN. Okay. So we need to, again, going back to build that culture that embraces the change necessary.

Doctor, VA's testimony states that its planning will be in full swing over the next 3 months, implementation begins October the 1st and is scheduled to finish in Spokane in March of 2020. Do you believe that is enough time to conduct those thorough site assessments, finish VistA mapping and map all the workflows, have we got enough time to do that?

Dr. ZENOOZ. Based on our discussions with several industry experts and bringing in those experts who in these conversations we feel that that is adequate time for our workflow decisions and site reviews. We also have a partner that has done this at least 15,000 times. So, you know, I am hoping that Cerner, with all of their experience and expertise that they bring to the table, can add to this.

I think what really helps here is that we are not trying to customize things and we are trying to adopt—or we are adopting industry best practices and we are adopting what Cerner has already built in to ensure that it fits our model. So I think there is adequate time for us, but of course, you know, we will be working with the Committee very closely and keeping you appraised of our progress. If we feel that we need adequate time to evaluate or work on something or delay the process, I think that is absolutely okay on my end from a clinical perspective and I will be the first to speak up.

Mr. BERGMAN. Okay.

Dr. ZENOOZ. On the VistA mapping, I would defer to Mr. Short.

Mr. BERGMAN. Okay. In 17 seconds or less.

Mr. SHORT. On the VistA mapping, we have done a couple different things. Right now we have identified all the functional clinical modules we are confident that Cerner will replace. The nonclinical modules that do other functionality, we have five of them left, we are still analyzing them.

Mr. BERGMAN. Okay, thank you.

Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman for yielding.

Mr. Short, I was about to—you were about to remind me of what one of my good friends who was the mayor of the county I lived in, retired now, George Jane said—he said, son, when you go to Congress, remember, you can't vote silence. I was about to ask you if you wanted to speak after almost 3 hours at this hearing.

Mr. SHORT. Thank you, sir.

The CHAIRMAN. So one question that—and we will just do a 2-minute lightning round here—that came up with the DoD application—and I know, Mr. Windom, you know the answer to this, but became so enamored with the security, as obviously we can, obviously cyber security we are very concerned with about protecting patients, it slowed the process down so much that it became almost

too cumbersome to use. I think that has been worked out and I think that is one of the scalable things that VA can learn from what DoD did, and I am glad you are where you are to sort of pass that information along. Am I correct or not?

Mr. WINDOM. Sir, I am going to defer one more time to the Chief Technology Officer, because he is my expert that we pay in that arena. And I think I have the answer, but I will let him give you the answer, if you don't mind, sir.

Mr. SHORT. DoD has been very successful in getting the latency—along with Cerner, getting the latency out of the system. VA is going to be incorporating the same security model the DoD put together that has a higher security posture than we normally have historically in VA to make sure everything is encrypted, secure perimeter-wise, and have been following that same model.

The CHAIRMAN. And, as I understand, that was one of the things that slowed the DoD implementation down initially. That should not slow VA down?

Mr. SHORT. That is correct. From the lessons learned, we are taking the best of that. I am in talks with the DoD on security every week.

The CHAIRMAN. Thank you.

I yield now to Mr. Takano.

Mr. TAKANO. Mr. Burke, does the contract you have with VA also include responsibility for the Community Care interoperability?

Mr. BURKE. It does, there are the standards for that Community Care interoperability, yes, sir.

Mr. TAKANO. And do you know on the DoD side whether the Cerner contract with DoD, it covers the internal medical operations, as well as TRICARE and that sort of thing? Because TRICARE is going to, you know—

Mr. WINDOM. Sir, we can take that for the record. We don't really want to speak on behalf of DoD, if we—

Mr. TAKANO. Okay, fine. Mr. Burke, we started to get into a conversation with Ms. Brownley about the sticks that the VA might have in order to compel the other EHRs out there to kind of meet VA standards, and you were about to defer to the Doctor to talk about that. Could you comment on the possible sticks?

Mr. BURKE. Are—Doctor—

Mr. TAKANO. Either you or the Doctor.

Dr. ZENOOZ. I will just to make a comment quickly that, you know, I think the big thing on our end is user adoption, it is measuring to ensure that our users are actually using it and embracing the new technology to improve their work. And we have several ways to monitor that through things that we are purchasing in Cerner, several tools and dashboards. And we will continue to do that if we feel that it is inadequate training, or we need better training—

Mr. TAKANO. What I am getting at is that the Community Care providers, that obviously we have provider agreements that we have with them and that we could through those provider agreements leverage the interoperability and the standards that they must adopt in order to meet VA's. I don't think it is fair we compare VA care to Community Care without comparing apples to apples and having equivalent transparency, is what I am getting at.

Dr. Burke, do you want to—or Mr. Burke?

Mr. BURKE. The reimbursement piece from the VA and the Community Care is the important, what I refer to as stick. It is basically the VA can compel those organizations to at least meet some of the data standards and the transaction elements, and that is what we are looking for on some of the business side from a provider perspective.

So, technically speaking, I feel confident that actually the industry is moving towards the right pieces around interoperability. It will be about how we get the rest of the ecosystem of health care to participate. And so what I am referring to specifically is some of the reimbursement elements of the VA as they engage with those Community Care providers.

Mr. TAKANO. Well, thank you.

I yield back, Mr. Chairman. Sorry for going over.

The CHAIRMAN. Okay, I appreciate the gentleman for yielding. And I will now yield to you if you have any closing comments.

Mr. TAKANO. Mr. Chairman, let me just say that I agree with you, I feel a sense of trepidation about the amount of money that we are about to expend on this project. I also certainly hope, along with the GAO, that the ongoing costs after full implementation is going to be far less than the billion dollars, we are spending to maintain VistA. And there are plenty of people out there watching from the IT world who regularly see the Government being hoodwinked by—well, people seeking an advantage, taking advantage of the Government's lesser ability to kind of judge these systems. This is one of the reasons why I have asked the Congress to actually refund, to fund again the Office of Technology Assessment, so that we are in a better position to be able to interact with technology issues.

But I also see with the VA being the largest health care provider in the country and our potential ability to interact with many, many private sector entities in health care, that we have a real chance to push issues like who owns medical data and to truly put that data in a portable position for the patient, and to really shine a light on the proprietary practices of health care systems.

The VA is publicly owned and is therefore in many ways far more publicly accountable, and I think we have an opportunity to extend that accountability into the private sector. And, you know, that is my hope in this opportunity and that is why I want to make sure we get this right, because we have not only the ability to affect the health care of veterans, but potentially all Americans through what we are trying to do here.

So I yield back.

The CHAIRMAN. I thank the gentleman for yielding.

Sorry, General Bergman, I missed you over there. You are recognized.

Mr. BERGMAN. Well, as a Marine, I spent a lot of time camouflage, so there is nothing wrong with that, nothing wrong with that.

Doctor, I would like to just follow up with you just one more time to dig a little deeper into the planning activities and the implementation. Do you have any triggers in place that is going to give you

a sensing if the schedules are all of a sudden not matching or things are out of whack?

Mr. WINDOM. Sir, within the next 60 days from Cerner we have a multitude of deliverables, including an integrated master scheduling, an implementation plan, a change-management plan. We are reviewing those documents in earnest, so we are going to make sure we apply the appropriate rigor.

Mr. BERGMAN. Let me ask you the question—

Mr. WINDOM. Yes, sir.

Mr. BERGMAN [continued].—a different way. You have got all the documents, you have got everything, is there anything in place to—when a red—call it a dashboard, all of a sudden it goes from green to red—

Mr. WINDOM. Yes, sir.

Mr. BERGMAN [continued].—you know, is there anything in place, that is all your documents, the interplay between all the things you are doing—

Mr. WINDOM. Yes, sir.

Mr. BERGMAN [continued].—to all of a sudden raise a flag?

Mr. WINDOM. Yes, sir. The risk management plan that we manage captures a multitude of risks that we think exist throughout the program. Red flags, yellow flags, green flags are all being monitored to assess whether we have a problem. We want to be preemptive and proactive. We have got a team of experts, both technical and clinical, to support that. And so we will be ready to respond, sir.

Our success revolves around program management oversight and picking the right partner; we think we have both and so we are ready to execute.

Mr. BERGMAN. In terms of—I have got 23 seconds—in terms of an airline flight from takeoff to cruise to touchdown, where are you?

Mr. WINDOM. I would say on the runway, sir.

Mr. BERGMAN. Okay.

Mr. WINDOM. On the runway, yes, sir.

Mr. BERGMAN. Very good. I yield back.

The CHAIRMAN. That is a very good question.

You know, at the end of the day, I am going to simplify this. This is obviously a highly technical thing we are doing. At the end of the day, all the patient wants to know is why did I come in and how am I doing. I mean, that is really why you came—any of us that go to the doctor, that is what you want to know, am I all right, did you find out what I need to know. And does this new tool we have allow us providers to easily access that information, give that simple answer to the question to you. That is a simplified why somebody goes to the doctor, why are you here today. At the end of the day, can we figure out what is wrong with you in simple terms, tell you what is wrong, and how we are going to help you fix that.

And we are going to continue. As I was sitting down thinking about how enormous this project was, I know the little rollout we did in our practice was not the easiest thing we ever did, and this is an enormous rollout and it is going to take a team effort from everybody. And we are on the team with you. We are not here to

fuss at you, we are here to try to make you successful, because ultimately it is about the quality of care, we provide our veterans and our patients, and that is what it is all about.

And so we are going to have many of these and I thought standing up a separate, very small Committee, probably we will have five Members on that Committee, that is all, and that is their only focus is to keep an eye on this and keep us on track, and find out where we get off track and how we can get back on.

I am going to head back out to the Northwest at some time in the fairly near future and get a look and see how it is looking, so that I can be up to speed in October when VA kicks this off.

I really appreciate all of you being here today. I know you saw how many of our Committee Members engaged in this long hearing.

If there are no further questions, I ask unanimous consent that all Members have 5 legislative days in which to revise and extend their remarks, and include extraneous material.

Without objection, so ordered.

The hearing is adjourned.

[Whereupon, at 12:49 p.m., the Committee was adjourned.]

A P P E N D I X

Prepared Statement of Peter O'Rourke

Chairman Roe, Ranking Member Walz, distinguished Members of the Committee; thank you for the opportunity to testify today in support of the Department of Veterans Affairs (VA) initiative to modernize its electronic health record (EHR) through the acquisition of the EHR solution. Let me also thank the Committee, and other members of Congress, for your prior and on-going support of this program. Without that support, VA would not have been able to move forward with the acquisition in support of our Veterans. I am accompanied today by Mr. John Windom, the Program Executive Officer, Dr. Ashwini Zenooz, the Chief Medical Officer, and Mr. John Short, the Chief Technology Officer all from the Electronic Health Record Modernization (EHRM).

On May 17, 2018, the Department of Veterans Affairs (VA) awarded an Indefinite Delivery/Indefinite Quantity (ID/IQ) contract for an electronic health record system to Cerner Corporation. Given the complexity of this environment VA has awarded this ID/IQ to provide maximum flexibility and necessary structure to control cost. The solution allows patient data from VA and the Department of Defense (DoD) to reside in a single hosting site utilizing a single common system to enable the sharing of health information, improve care delivery and coordination, and provide clinicians with data and tools that support patient safety. VA believes that implementing a single EHR platform will allow for seamless care for our Nation's Servicemembers and Veterans.

VA is making progress towards these positive outcomes for Veterans by issuing the first three Task Orders (TO) on this contract. The awarding of these firm fixed price TOs allow VA to manage workflows and modify deployment strategies more efficiently. VA would like to provide additional details regarding the first three task orders:

- **Task Order 1- EHRM Project Management, Planning Strategy, and Pre-Initial Operational Capabilities (IOC)**

Under this task order, the contractor will provide project management, planning, strategy, and pre-IOC build support. More specifically, the scope of services included in this task order are project management; enterprise management; functional management; technical management; enterprise design and build activities; and pre-IOC infrastructure build and testing.

- **Task Order 2- EHRM Site Assessments - Veterans Integrated Service Network (VISN) 20**

Under this task order, the contractor will conduct facility assessments to prepare for the commercial EHR implementation for the following VISN 20 IOC sites: Mann-Grandstaff VA Medical Center (VAMC), Seattle VAMC, and American Lake VAMC. The contractor will also provide VA with a comprehensive current-state assessment to inform site-specific implementation activities and task order-specific pricing adjustments.

- **Task Order 3- EHRM Hosting**

Under this task order, VA will fund the contractor to deliver a comprehensive EHRM hosting solution and start associated services to include hosting for EHRM applications, application services, and supporting EHRM data.

Implementation Strategy

The EHRM effort is anticipated to take several years to complete and continue to be an evolving process as technology advances are made. The new EHR will be designed to accommodate aspects of healthcare delivery that are unique to VA, while bringing industry best practices to improve VA care for Veterans and their families. Most medical centers should not expect immediate, major changes to their EHR systems.

Over the course of the next three months, VA will be full steam ahead with activities to support the EHR implementation. VA and the contractor are conducting ongoing discussions regarding several critical activities including optimizing the deployment strategy, establishing governance boards, and conducting current state reviews. Knowing the potential challenges with large-scale Information Technology (IT) projects, VA's approach involves deploying the EHR solution at targeted IOC sites to identify challenges and correct them before deploying to additional sites. The contractor will begin conducting site assessments for the IOC sites beginning in July 2018 and concluding in September 2018. These site assessments include a current state technical and clinical operations review and the validation of the facility capabilities list. VA anticipates the system implementation for the IOC sites to begin October 1, 2018, with an estimated completion date set in March 2020. With this IOC site approach, we will be able to hone governance, identify efficient strategies, and reduce risk to the portfolio by solidifying workflows and detecting course correction opportunities prior to deployment.

Change Management Strategy

An impactful change management strategy involves working with users earlier in the implementation process to determine their needs and quickly alleviate their concerns. VA understands that a significant factor involved in this transformation is the human component. In the end, implementation is not primarily a technical challenge, but a cultural challenge. VA leaders are essential to success. We have also solicited advice from leaders of large, renowned private sector healthcare systems, regarding challenges and solutions. VA is working to engage end-users early in the process to train facility staff, ensuring successful user adoption. Furthermore, EHRM is establishing clinical councils that include nurses, doctors, and other EHR users from the field to support configuration of workflows. Through these councils, staff can elevate their workflow concerns and propose solutions. In addition, VISNs will also be given the opportunity to configure their workflows without customizing, based on any unique circumstances for that VISN. Councils will be working to document existing workflows and ensure that the work already being done will be supported by the EHRM solution. Certain changes in clinical workflows will require council decisions and may need to be adjudicated through interagency governance with DoD. This provides VA a structured approach to work through joint cost, schedule, performance, and interoperability objectives with DoD counterparts.

During the multi-year transition effort, VA will continue to use Veterans Information System and Technology Architecture (VistA) and related clinical systems until all legacy VA EHR modules are replaced by the EHR solution. For the purposes of ensuring uninterrupted healthcare delivery, existing systems will run concurrently with the deployment of the new EHR platform while we transition each facility. The entire roll-out will occur over a period of years. During the transition, VA will work tirelessly to ensure a seamless transition of care. A continued investment focused patient safety, security, and interoperability in legacy VA EHR systems will ensure a working functional system for all VA health care professionals.

Governance Structure

The EHRM PEO interim governance structure consists of five Boards that will meet myriad of challenges the program will undoubtedly encounter. VA has a foundational challenge to replace 130 instances of VistA across the enterprise and to establish a single common solution with DoD to promote interoperability and seamless care. To mitigate these risks to the EHRM program, VA will govern through the involvement of these five Boards: (1) EHRM Steering Committee; (2) EHRM Governance Integration Board; (3) Functional Governance Board; (4) Technical Governance Board (5) Legacy EHRM Pivot Work Group. Moving forward, these Functional, Technical and Programmatic governance boards will implement a structure and process, which facilitates efficient and effective decision making and the adjudication of risks for rapid implementation of recommended changes.

To ensure interagency coordination, there is an emphasis on transparency through integrated governance both within and across VA and from a decision-making perspective. VA and DoD have instituted an interagency working group to review use cases and collaborate on best practices for business, functional, and IT workflows, with an emphasis on ensuring interoperability objectives between the two agencies. VA and DoD's leaders will meet regularly to verify the working group's strategy, and course corrections as necessary.

Efficiencies and Lessons-Learned

Understanding the significant challenges related to DoD's EHR implementation, VA is proactively working to address these areas to further reduce potential risks

at VA's IOC sites. Both Departments are working closely together to ensure lessons learned at DoD sites will enhance future deployments at DoD as well as VA.

Program Management Office (PMO) Oversight

A major key to successful EHR implementation will be PMO oversight. The PMO will be properly staffed with the requisite functional, technical, advisory, and other subject matter experts. Its primary responsibilities will be enforcing adherence to cost, schedule, and performance-quality objectives. In addition, the PMO will ensure that the appropriate risk mitigation strategies are implemented, promoting proactive and preemptive contract management approach.

Closing

This initiative will honor our Nation's commitment to Veterans by better enabling VA to provide the high-quality care and benefits our Veterans have earned. It will support Department efforts to modernize the VA health care system and ensure that VA is a source of pride for Veterans, beneficiaries, employees, and taxpayers. Mr. Chairman and Members of the Committee, this concludes my statement. Thank you for the opportunity to testify before the Committee today to discuss the EHRM efforts. I would be happy to respond to any questions you may have.

Prepared Statement of Vice Admiral Raquel Bono, M.D.

REGARDING

ELECTRONIC HEALTH RECORD MANAGEMENT

Chairman Roe, Ranking Member Walz and distinguished Members of the Committee, thank you for the opportunity to testify before you today. I am honored to represent the Department of Defense (DoD) and discuss the Department's experience in implementing a modernized electronic health record (EHR). I also want to highlight the tremendous opportunity to comprehensively advance interoperability with the VA and private sector providers as a result of the VA's recent decision to acquire the same commercial EHR that the DoD is now deploying.

The decision by DoD to acquire a commercial EHR was informed by numerous advantages offered by this pathway: introducing a proven product that can be used globally in deployed environments and in military hospitals and clinics in the US; leveraging ongoing commercial innovation throughout the EHR life cycle; improving interoperability with private sector providers; and offering an opportunity to transform the delivery of healthcare for servicemembers, veterans, and their families.

Our mission aligns with Secretary Mattis' National Defense Strategy (NDS) to modernize the Department of Defense and provide combat-ready military forces. The threats facing our Nation continuously evolve and a medically ready military force is critical to our national defense. MHS GENESIS, our new EHR, supports that mission.

Similar to the VA, the DoD was an early pioneer in the development of a provider-centric electronic health record. Over time, demands by the private sector health institutions, as well as Federal investments, led to major advances in civilian health care technology. As result, in 2013 the DoD made the decision to transition from multiple home-grown government-developed EHRs to a single, integrated commercial-off-the-shelf (COTS) capability.

The Department recognized that MHS requirements could be better met by state-of-the-market commercial applications. Furthermore, the DoD could leverage private sector investments in technology and established data sharing networks with civilian partners to enhance healthcare, reduce costs and improve the customer experience. Staying current with the latest advancements in technology without being the only investment stream enables the DoD to benefit from some of the best products in health IT without carrying the financial burden alone.

In July 2015, the DoD awarded a $4.3 billion contract to Leidos Inc. to deliver a modern, secure, and connected EHR. The Leidos Partnership for Defense Health (LPDH) team consists of four core partners, Leidos Inc., as the prime integrator, and three primary partners in Cerner Corporation, Accenture, and Henry Schein Inc. MHS GENESIS provides a state of the market COTS solution consisting of Cerner Millennium, an industry-leading EHR, and Henry Schein's Dentrix Enterprise, a best of breed dental EHR module.

In 2017, the Department reached an important milestone by deploying to all four Initial Operational Capability (IOC) sites in the Pacific Northwest, culminating with deployment to Madigan Army Medical Center (MAMC), the largest of the IOC sites,

in Tacoma, Washington. The other sites include the 92nd Medical Group at Fairchild Air Force Base; Naval Health Clinic Oak Harbor; and Naval Hospital Bremerton - all in Washington State.

DEPLOYMENT, STABILIZATION AND OPTIMIZATION

To streamline and improve healthcare delivery, MHS GENESIS will integrate inpatient and outpatient best-of-suite solutions that connect medical and dental information across the continuum of care, from point of injury to the military treatment facility, providing a single patient health record. This includes garrison, operational, and en route care, increasing the quality of care for our patients and simplifying medical record management for beneficiaries and healthcare professionals. Over time, MHS GENESIS will replace DoD legacy healthcare systems and will support the availability of electronic health records for more than 9.4 million DoD beneficiaries and approximately 205,000 MHS personnel globally.

The deployment and implementation of MHS GENESIS across the MHS is a team effort. Complex business transformation requires constant coordination and communication with stakeholders and partners, including the medical and technical communities, to ensure functionality, usability, and data security. DoD engaged stakeholders across the MHS to identify requirements and standard workflows. The result was a collaborative effort across the Services and the DHA to ensure the clinical workflows enabled by MHS GENESIS are standardized and consistent across the enterprise to minimize variation in the delivery of healthcare.

Representatives from functional communities also collaborated to identify critical data to transfer from legacy systems into MHS GENESIS: Problems, Allergies, Medications, Procedures, and Immunizations (PAMPI). Other data, including lab results, radiology results, discrete notes, discharge summaries, etc., are still available through the Joint Legacy Viewer (JLV) as we sunset legacy systems.

Through a tailored acquisition approach, DoD leveraged commercial best practices and its own independent test community to field a modern, secure, and connected system that provides the best possible solution from day one. One example of leveraging commercial best practices was opting to utilize commercial data hosting, which allowed DoD to combine private sector speed and technology with the Department's superior data security knowledge and provide advanced analytics for our end users and beneficiaries. While there is still much work to be done, the integration of the commercial data hosting into DoD networks and systems represents a new direction in Pentagon information technology (IT) culture and practice. This innovative approach set the bar for COTS systems and commercial partnerships by the DoD and other Federal agencies in the future.

Additionally, we are employing industry standards to optimize the delivery of MHS GENESIS. Rollout across the MHS follows a "wave" model. Initial fielding sites in the Pacific Northwest were the first wave of military treatment facilities (MTFs) to receive MHS GENESIS. By deploying to four IOC sites that span a cross-section of size and complexity of MTFs, we are able to perform operational testing activities to ensure MHS GENESIS meets all requirements for effectiveness, suitability, and data interoperability to support a decision to continue MHS GENESIS deployments in the coming year. Deployment will occur by region-three in the continental U.S. and two overseas-in a series of concurrent wave deployments over the next four years. Each wave will include an average of three hospitals and 15 physical locations and will last approximately one year. Regionally grouped waves, such as the Pacific Northwest, will run concurrently. This approach allows DoD to take full advantage of lessons learned and experience gained from prior waves to maximize efficiencies in subsequent waves, increasing the potential to reduce the deployment schedule in areas where necessary. We are sharing our planned deployments with our colleagues at the VA, and plan to synchronize deployments where possible.

As with any large-scale IT transformation, there are training, user adoption, and change management opportunities. The configuration of MHS GENESIS deployed for IOC provided a minimally suitable starting point to assess the system as well as the infrastructure prior to full deployment. Now that DoD has the results from operating MHS GENESIS in a representative cross-section of military hospitals and clinics, DoD is making adjustments to software, training, and workflows.

We are working with our industry partner, LPDH, to engage representatives from the sites, the functional communities, the technical community, and the test community with the goal to validate the MHS GENESIS baseline software configuration based on IOC lessons learned. For an eight-week period starting in mid-January, we sent representatives from DoD and contract partner offices to collaborate with initial fielding site users with a focus on MHS GENESIS configuration as well as training, adoption of workflows, and change management activities. Specific areas of refinement included: roles, clinical content, trouble ticket resolution, and

workflow adoption. Following this period, we collected feedback, evaluated, and provided enhancements to the system. These activities were always part of our IOC process, and we are experiencing measurable improvements. End user feedback is positive. Our approach has and always will be functionally led and frontline informed.

MEASURING USER ADOPTION OF MHS GENESIS

Recognizing the sizeable investment in an EHR for its 9.4 million beneficiaries and more than 200,000 providers, the DoD required a standardized way to independently measure the progress and effectiveness of MHS GENESIS adoption. To that end, the DoD engaged the Healthcare Information and Management Systems Society (HIMSS) Analytics to assess adoption and conduct IOC usability assessments for MHS GENESIS. HIMSS Analytics provided adoption scoring and benchmarking gap analysis assessments on IOC sites to rate the top usability principles including the Electronic Medical Record Adoption Model (EMRAM) and the Outpatient-Electronic Medical Record Adoption Model (O–EMRAM).

The HIMSS Analytics EMRAM is widely recognized as the industry standard for measuring EHR adoption and rated from Stage 0 to Stage 7. Prior to MHS GENESIS deployment, the average score for the IOC sites was below a Stage 2 EMRAM and slightly above Stage 2 O–EMRAM. Post deployment, the sites scored at or above a Stage 5 on the EMRAM and O–EMRAM, with Fairchild Air Force Base achieving an O–EMRAM Stage 6. These scores are well above the national averages of Stage 2 and Stage 3 respectively. It is important to note, Stage 6 obtained by Fairchild is an indicator that an organization is effectively leveraging the functionality of its EHR. Stage 6 is an accomplishment only 20 percent of ambulatory healthcare organizations have attained. To achieve this level, the facility was required to demonstrate a number of technology functionalities that contribute to patient safety and care efficiency, including establishing a digital medication reconciliation process, a problem list for physicians, and the ability to send patient preventative care reminders.

We recognize that our success is dependent on strong clinical leadership both here in our headquarters, and by clinical champions at the point of care. The Department is focused on maintaining this clinical leadership as we move to the next deployment wave.

DEPARTMENT OF DEFENSE AND OTHER AGENCY COLLABORATION

In June 2017, the VA announced its decision to adopt the same EHR as DoD, and last month, they executed a ten-year contract with Cerner Corporation. This decision and subsequent action is the next step toward advancing EHR adoption across the Nation and is in the best interest of our veterans. As then Acting VA Secretary Wilkie said at the contract announcement, the contract will "modernize the VA's health care IT system and help provide seamless care to veterans as they transition from military service to veteran status and when they choose to use community care."

The VA's adoption of the DoD's EHR will fundamentally solve the problem of transitioning patient health record data between the Departments by eliminating the need for moving data altogether. The VA and DoD are committed to partnering in this effort and understand that the mutual success of this venture is dependent on the close coordination and communication between the two Departments which continues to be supported by the DoD/VA Interagency Program Office.

During Fiscal Year 2018, the DoD and VA collaborated to provide updates on the Departments' modernization efforts, technical challenges, and joint capabilities. The DoD also supported joint collaboration meetings between DoD and VA Chief Information Officers (CIO) and other senior leadership to facilitate other future activities relating to a single integrated EHR. As a result of these meetings, leadership established a DoD–VA CIO Executive Steering Committee as well as working groups focused on identity management, joint architecture, and cybersecurity. Since the award of the VA contract, leaders from both Departments have been meeting to more formally integrate our management and oversight activities.

Our Federal partnering extends beyond the VA. In April 2018, the DoD announced a partnership with the United States Coast Guard for MHS GENESIS. The Coast Guard will adopt and deploy MHS GENESIS to its clinics and sick bays. Approximately 6,000 Active duty Coast Guard members receive care in DoD hospitals and clinics. A complete and accurate health record in a single common system is critical to providing high-quality, integrated care and benefits, and to improving patient safety. MHS GENESIS will supply Coast Guard providers with the necessary data to collaborate and deliver the best possible healthcare.

ADVANCING INTEROPERABILITY AND DATA SHARING

As the DoD transitions to MHS GENESIS, our commitment to expand interoperability efforts with the VA and private sector providers remains unchanged. Service members and their families frequently move to new duty assignments, they deploy overseas, and eventually, transition out of the military. As a result, there are many different places where they may receive medical care.

More than 60 percent of Active duty and beneficiary healthcare is provided outside an MTF, through TRICARE network and non-network providers. Healthcare providers need up-to-date and comprehensive healthcare information to facilitate informed decision making whenever and wherever it is needed-from a stateside MTF to an outpost in Afghanistan, from a private care clinic within the TRICARE network to a VA hospital, and everywhere in between.

The DoD and VA are two of the world's largest healthcare providers and today, they share more health data than any other two major health systems. The two Departments currently share health records through the Defense Medical Information Exchange (DMIX) program, which includes the Joint Legacy Viewer (JLV), a health information portal that aggregates data from across multiple data sources, to include MHS GENESIS, to provide read access to medical information across multiple government and commercial data sources.

In addition to enabling enhanced data sharing between DoD and VA, JLV allows DoD to expand relationships with private-sector providers to give clinicians a comprehensive, single view of a patient's health history in real-time as they receive care in both military and commercial systems. JLV is available to DoD providers in AHLTA and is now incorporated into MHS GENESIS.

Over the past five years, DoD steadily increased its data-sharing partnerships with private sector healthcare organizations. In March 2017, there were over 20 Health Information Exchanges (HIE) that partnered with DoD. Today, the number has more than doubled as the DoD has nearly 50 HIE partners. DoD leverages its partnership with the Sequoia Project, a network of exchange partners who securely share clinical information across the United States. We are also targeting CommonWell-an independent, not-for-profit trade association with connections to more than 5,000 private sector healthcare sites as a partner. Leveraging this connection through MHS GENESIS will expand the great work DoD accomplished through HIEs. As DoD and VA continue to improve data sharing between the Departments and with the private sector, deployment of MHS GENESIS will enable more advanced data sharing capabilities through the existing architecture.

CONCLUSION

Thank you again for the opportunity to come here today and share the progress we've made to transform the delivery of healthcare for servicemembers, veterans, and their families, as well as discuss the opportunity to strengthen the DoD–VA partnership as we move forward together with a common EHR that will benefit millions of servicemembers and veterans. As a partner in our progress, we appreciate the Congress's interest in this effort and ask for your continued support to help us deliver on our promise to provide world-class care and services to those who faithfully serve our Nation. Again, thank you for this opportunity, and I look forward to your questions.

Prepared Statement of David A. Powner

VA IT MODERNIZATION

Preparations for Transitioning to a New Electronic Health Record System Are Ongoing

Chairman Roe, Ranking Member Walz, and Members of the Committee:

Thank you for the opportunity to participate in today's hearing on the planned implementation of the Department of Veterans Affairs' (VA) Electronic Health Record Modernization (EHRM) program.

As you know, the use of information technology (IT) is crucial to helping VA effectively serve the Nation's veterans and, each year, the department spends billions

of dollars on its information systems and assets. Over many years, however, VA has experienced challenges in managing its IT projects and programs. These challenges have spanned a number of critical initiatives related to modernizing major systems within the department, including its electronic health information system-the Veterans Health Information Systems and Technology Architecture (VistA).

We have issued numerous reports on the challenges that the department has faced in managing VistA and working to increase the interoperability [1] of health information. [2] We also have ongoing work for the Committee on Veterans' Affairs to review VistA and the department's transitional efforts to replace the system with a new, commercial-off-the-shelf (COTS) system that it is acquiring from Cerner Government Services, Inc. (Cerner) under the EHRM program.

At your request, my testimony today summarizes preliminary observations from our ongoing review. Specifically, the statement discusses our preliminary observations regarding (1) costs incurred for the system and related activities during the last 3 fiscal years; (2) key components that comprise VistA and are to be replaced; and (3) actions VA has taken to prepare for its transition to the Cerner system. In addition, the statement discusses critical success factors related to major information technology acquisitions. We have previously reported that these success factors could enhance the likelihood that the new electronic health record system acquisition will be successful.

In developing this testimony, we considered our previously published reports that discussed the history of the department's VistA modernization efforts. In addition, we relied on our prior report that discussed critical success factors of major IT acquisitions. [3] The reports cited throughout this statement include detailed information on the scope and methodology for our prior reviews.

Further, we considered preliminary observations from our ongoing review of VistA's costs, components, and the actions VA has taken to prepare for transitioning from VistA to the Cerner system. With regard to the total costs of VistA, we obtained records of obligations for VistA-related programs for fiscal years 2015, 2016, and 2017, as tracked by the Veterans Health Administration (VHA) [4] and VA's Office of Information and Technology (OI&T) [5]. We then combined the amount of those obligations with the amount of other obligations, such as those for supporting interoperability and infrastructure, identified by VA as being closely related to the development and operation of VistA. We interviewed VA officials to understand the source and relevance of the obligations identified by the department and determined that the data were reliable for our purposes.

To identify the key components of VistA and the extent to which they support health record capabilities for the department, we analyzed VA documentation that describes the scope of the system. This documentation included the department's

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[1] Interoperability is the ability to exchange and use electronic health information.

[2] GAO, Veterans Affairs Information Technology: Historical Perspective on Health System Modernization Contracts and Update on Efforts to Address Key FITARA–Related Areas, GAO–18–267T (Washington, D.C.: Dec. 7, 2017); VA Health IT Modernization: Historical Perspective on Prior Contracts and Update on Plans for New Initiative, GAO–18–208 (Washington, D.C.: Jan. 18, 2018); Veterans Affairs: Improved Management Processes Are Necessary for IT Systems That Better Support Health Care, GAO–17–384 (Washington, D.C.: June 21, 2017); VA Information Technology: Pharmacy System Needs Additional Capabilities for Viewing, Exchanging, and Using Data to Better Serve Veterans, GAO–17–179 (Washington, D.C.: June 14, 2017); Electronic Health Records: Outcome-Oriented Metrics and Goals Needed to Gauge DoD's and VA's Progress in Achieving Interoperability, GAO–15–530 (Washington, D.C.: Aug. 13, 2015); Electronic Health Records: VA and DoD Need to Support Cost and Schedule Claims, Develop Interoperability Plans, and Improve Collaboration, GAO–14–302 (Washington, D.C.: Feb. 27, 2014); Electronic Health Records: DoD and VA Should Remove Barriers and Improve Efforts to Meet Their Common System Needs, GAO–11–265 (Washington, D.C.: Feb. 2, 2011); and Electronic Health Records: DoD and VA Have Increased Their Sharing of Health Information, but More Work Remains, GAO–08–954 (Washington, D.C.: July 28, 2008).

[3] GAO, Information Technology: Critical Factors Underlying Successful Major Acquisitions, GAO–12–7 (Washington, D.C.: Oct. 21, 2011).

[4] VHA is the major component within VA that provides health care services, including primary care and specialized care, and it performs research and development to improve veterans' health care services.

[5] VA's OI&T oversees the department's IT acquisitions and operations. OI&T has responsibility for managing the majority of VA's IT-related functions. The office provides strategy and technical direction, guidance, and policy related to how IT resources are to be acquired and managed for the department. According to VA, OI&T's mission is to collaborate with its business partners (such as VHA) and provide a seamless, unified veteran experience through the delivery of state-of-the-art technology.

Health Information System Diagram, the VA Monograph,[6] the VA Systems Inventory, and the VistA Product Roadmap. We also reviewed program documentation identifying components of VistA to be replaced by the Cerner system. We analyzed these documents for consistency to provide a reasonable basis for our observations.

To summarize the actions VA has taken to prepare for its transition from VistA to the Cerner system under the EHRM program, we reviewed available program briefings, governance documents, and draft plans for the EHRM program related to, for example, interoperability, data migration, change management, and requirements. We supplemented our analysis with information obtained through interviews with relevant VA officials.

The work upon which this statement is based is being or was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

VA's mission is to promote the health, welfare, and dignity of all veterans in recognition of their service to the Nation by ensuring that they receive medical care, benefits, social support, and lasting memorials. In carrying out this mission, the department operates one of the largest health care delivery systems in the United States, providing health care services to approximately 9 million veterans throughout the United States, Philippines, Virgin Islands, Puerto Rico, American Samoa, and Guam.

In 2015, we designated VA health care as a high-risk area for the Federal government, and we continue to be concerned about the department's ability to ensure that its resources are being used cost-effectively and efficiently to improve veterans' timely access to health care.[7] In part, we identified limitations in the capacity of VA's existing IT systems, including the outdated, inefficient nature of certain systems and a lack of system interoperability as contributors to the department's challenges related to health care.

Providing health care to veterans requires a complex set of clinical and administrative capabilities supported by IT. VA's health information system-VistA-has been essential to the department's ability to deliver health care to veterans. VistA contains an electronic health record for each patient that supports clinical settings throughout the department. For example, clinicians can use the system to enter and review patient information; order lab tests, medications, diets, radiology tests, and procedures; record a patient's allergies or adverse reactions to medications; request and track consults; enter progress notes, diagnoses, and treatments for encounters; and enter discharge summaries.

VistA was developed in house by clinicians and IT personnel in various VA medical facilities and has been in operation since the early 1980s.[8] Over the last several decades, VistA has evolved into a technically complex system comprised of about 170 modules that support health care delivery at 152 VA Medical Centers and over 1,200 outpatient sites. In addition, customization of VistA, such as changes to the modules by the various medical facilities, has resulted in about 130 versions of the system-referred to as instances.

According to VA, VistA modules are comprised of one or more software applications that support various health care functions, such as providing care coordination and mental health services. In addition to VistA, the department has other health information systems that must interface with VistA to send, exchange, or store related health (e.g., clinical and patient) data.[9]

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[6] VA, VA Monograph, (Washington, D.C.: Jan.13, 2017). The VA Monograph documents an overview of the VistA and non-VistA applications used by VHA.

[7] GAO maintains a high-risk program to focus attention on government operations that it identifies as high risk due to their greater vulnerabilities to fraud, waste, abuse, and mismanagement or the need for transformation to address economy, efficiency, or effectiveness challenges. VA's issues were highlighted in our 2015 high-risk report, GAO, High-Risk Series: An Update, GAO–15–290 (Washington, D.C.: Feb. 11, 2015) and 2017 update, GAO, High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others, GAO–17–317 (Washington, D.C.: Feb. 15, 2017).

[8] VistA began operation in 1983 as the Decentralized Hospital Computer Program. In 1996, the name of the system was changed to VistA.

[9] Interfaces enable VistA to communicate with applications within other VA systems, as well as selected systems or other Federal agencies (e.g., DoD health information systems used to treat injured servicemembers), health information exchange networks, and other COTS products. There are various mechanisms used to facilitate these exchanges to allow the extraction

Since 2001, VA has identified the need for enhancements and modifications to VistA and has pursued multiple efforts to modernize the system. Two major efforts have included the VistA Evolution program and, most recently, the planned acquisition of the same electronic health record system that the Department of Defense (DoD) is acquiring.

In 2013, VA established VistA Evolution as a joint program between OI&T and VHA that was comprised of a collection of projects and efforts focused on improving the efficiency and quality of veterans' health care. This program was to modernize the department's health information systems, increase VA's data exchange and interoperability capabilities with DoD and private sector health care partners, and reduce VA's time to deploy new health information management capabilities. [10]

In June 2017, the former VA Secretary announced a significant shift in the department's approach to modernizing VistA. Specifically, rather than continue to use VistA, the Secretary stated that the department planned to acquire the same Cerner electronic health record system that DoD has been acquiring. [11]

Accordingly, the department awarded a contract to Cerner in May 2018 for a maximum of $10 billion over 10 years. Cerner is to replace VistA with a commercial electronic health record system. This new system is to support a broad range of health care functions that include, for example, acute care, clinical decision support, dental care, and emergency medicine. When implemented, the new system will be expected to provide access to authoritative clinical data sources and become the authoritative source of clinical data to support improved health, patient safety, and quality of care provided by VA.

As previously mentioned, this acquisition is being managed by VA's EHRM program. According to program documentation, EHRM is also to deliver program management support and the infrastructure modernization required to install and operate the new system.

According to EHRM program documentation, the department has estimated that an additional $5.8 billion in funding, above the contract amount, would be needed to fund project management support and infrastructure improvements over the 10-year period. This amount does not fully include government employee costs.

Deployment of the new electronic health record system at the initial sites is planned for within 18 months of October 1, 2018, [12] with a phased implementation of the remaining sites over the next decade. Each VA medical facility is expected to continue using VistA until the new system has been deployed at that location.

VA Has Reported Obligating about $3.0 Billion to VistA and Related Activities from Fiscal Years 2015 through 2017

According to VA, the department's costs for VistA and related activities are approximated by funding obligations of about $1.1 billion, $899 million, and $946 million in fiscal years 2015, 2016 and 2017, respectively, for a total of about $3.0 billion over 3 years to support the system. Specifically, VHA and OI&T reported obligations to cover the costs for the VistA Evolution program, including costs for development, operation and maintenance, and payroll for government employees over the 3 fiscal years.

Further, in their efforts to fully determine the costs associated with VistA, VA officials also reported obligations for activities that supported VistA, but were not included in the VistA Evolution program. These other obligations were for investments in interoperability initiatives, such as increasing data standardization and

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of health information to and from these external products. These interfaces utilize, for example, remote procedure calls, Health Level 7, and in a few cases secure file transfer protocol for queries and other transactions with VistA.

[10] VA's former Executive in Charge for Information and Technology testified in December 2017 that the cost to upgrade and maintain VistA to industry standards would be approximately $19 billion over 10 years, and this still would not provide all the needed enhancements, upgrades, and interoperability with DoD.

[11] In July 2015, DoD awarded a $4.3 billion contract for a commercial electronic health record system developed by Cerner, to be known as MHS GENESIS. The transition to the new system began in February 2017 in the Pacific Northwest region of the United States and is expected to be completed in 2022. The former Secretary of Veterans Affairs signed a "Determination and Findings," to justify use of the public interest exception to the requirement for full and open competition, and authorized VA to issue a solicitation directly to Cerner. A "Determination and Findings" means a special form of written approval by an authorized official that is required by statute or regulation as a prerequisite to taking certain contract actions. The "determination" is a conclusion or decision supported by the "findings." The findings are statements of fact or rationale essential to support the determination and must cover each requirement of the statute or regulation. FAR, 48 C.F.R. § 1.701.

[12] The three initial deployment sites are the Mann-Grandstaff, American Lake, and Seattle VA Medical Centers.

data sharing between VA, DoD, and other government and non-government entities, and the Virtual Lifetime Electronic Record Health.[13] These obligations also include other VistA-related technology investments, such as networks and infrastructure sustainment, continuation of legacy systems, and overall patient safety, security, and system reliability.

Table 1: Obligations for the Veterans Health Information Systems and Technology Architecture (VistA) for Fiscal Years 2015 through 2017, as identified by the Department of Veterans Affairs

	2015	2016	2017	Total
VistA Evolution	$376,503,022	$195,475,101	$219,192,925	$791,171,048
Interoperability	$55,811,302	$32,755,060	$51,617,011	$140,183,373
Virtual Lifetime Electronic Record Health	$45,854,411	$28,953,893	$6,356,457	$81,164,761
Additional VistA-Related	$668,717,821	$642,100,886	$668,607,654	$1,979,426,362
Total	**$1,146,886,556**	**$899,284,941**	**$945,774,047**	**$2,991,945,544**

Source: GAO analysis of data provided by the Department of Veterans Affairs. | GAO-18-636T

VA Is Working to Define VistA's Scope and Identify Components to Be Replaced by the Cerner System

Understanding the scope of VA's current health information system is essential to effectively planning for the new system. However, according to VA officials, there is no single information source that fully defines the scope of VistA. Instead, existing definitions of the system, including the components that comprise it, are identified by multiple sources. These sources include the VA Systems Inventory, VistA Document Library, and VA Monograph.

Each of these sources describes VistA from a different perspective. For example, the VA Monograph provides an overview of VistA and non-VistA applications used by VHA. The monograph also describes modules and their associated business functions, but does not document all customization at local facilities. The VA Systems Inventory is a database that identifies current IT systems at VA, including systems and interfaces that are related to VistA. The VA Document Library is an online resource for accessing documentation on VA's nationally released software applications, including VistA.

In the absence of a complete definition of VistA, EHRM program officials have taken a number of steps to define the system's scope and identify the components that the Cerner system will replace. These steps have included conducting two analyses, performing preliminary site assessments, and planning for Cerner to perform a detailed assessment of each site where the new system will be deployed.

Specifically, EHRM program subject-matter experts undertook an analysis that identified 143 VistA modules and 35 software applications as representing the scope of the system. They then compared the functionality provided by the VistA modules to the Cerner system's capabilities to identify the VistA components that are expected to be replaced by the Cerner system. The analysis identified 131 (92 percent) of the 143 VistA modules and 32 (91 percent) of the 35 applications that are expected to be replaced by the Cerner system. For example, the analysis determined that the Care Management and Mental Health modules would be replaced by the new system.

EHRM program officials also undertook a subsequent, broader analysis to identify, among other things, the scope of VistA, as well as the department's other health IT systems that could also be replaced by the Cerner system. These other systems include, for example, dentistry and oncology applications. As part of this analysis, the department combined data from the VA Systems Inventory, the VistA Document Library, the VA Monograph, and other sources to identify the health information technology environment at a typical VA medical center.

[13] Virtual Lifetime Electronic Record Health is a program initially started in 2009 to streamline the transition of electronic medical, benefits, and administrative information between VA and DoD. It is now referred to as the Veterans Health Information Exchange.

The resulting analysis of VA's health IT environment identified a total of 330 applications that support health care delivery at a medical center, of which 119 applications (approximately 36 percent) have been identified as having similar functionality as a capability of the Cerner system. Further, 128 of the 330 applications are identified as VistA applications. Of the 128 applications designated as VistA, 58 (approximately 45 percent) have been identified as having similar functionality as a capability of the Cerner system, including pharmacy, laboratory, and scheduling capabilities.

In addition to the analyses discussed above, VA has taken steps to understand differences in VistA at individual facilities. Specifically, according to EHRM officials, representatives from VA and Cerner have visited 17 VA medical facilities to conduct preliminary site assessments. The intent of these assessments is to obtain a broad perspective of the current state of the systems, applications, integration points, reporting, and workflows being utilized at individual facilities. These site visits identified VistA customization that may be site specific. The identification of such site specific customization is intended to help Cerner plan for implementation of its system at each location. According to EHRM program officials, full site assessments that are planned at each location in preparation for implementation of the Cerner system are expected to identify the full extent of VistA customization.

VA's Preparations for Transitioning from VistA to the Cerner System Are Ongoing

Since the former VA Secretary announced in June 2017 that the department would acquire the same electronic health record system as DoD, VA has taken steps to position the department for the transition to the new system. These actions, which are ongoing, have included standardizing VistA, assessing the department's approach to increasing interoperability, establishing governance for the new program and the framework for joint governance with DoD, and preparing initial program plans.

Standardizing VistA

VA's goal is for all instances of VistA being used in its medical facilities to be standardized where practical. Such standardization is intended to better position the department to switch to the Cerner system. To increase standardization, the VistA Evolution program has been focused over the last 5 years on standardizing a core set of VistA modules related to interoperability which, according to the department, accounts for about 60 percent of VistA.

In addition, the program has focused on identifying software that is common to each VistA instance. VA refers to this collection of standard software as the gold instance. As part of its effort to standardize VistA, VA has implemented a process to compare the system at each site with the gold instance. Sites that are identified as having variations from the gold instance must apply for a waiver to gain approval for continuing to operate a non-standard VistA instance. OI&T and VHA assess the waivers, which may be approved if a site needs non-standard functionality that is deemed critical to that site. Alternatively, waivers are not approved if the assessment determines that a site's needs can be met by reverting to the gold instance of VistA.

Assessing the Approach to Increasing Interoperability

VA has identified increased interoperability as a key expected outcome of its decision to switch from VistA to the Cerner system. To ensure that the contract with Cerner will improve interoperability with community care providers (i.e., non-VA and third party providers), the former VA Secretary announced in December 2017 that the department had taken a "strategic pause" on the electronic health record acquisition process. During the pause, an independent study was undertaken to assess the approach to interoperability with the new acquisition.[14] The assessment made recommendations to improve imported data, address data rights and patient safety risks, and improve data access for patients. VA agreed with all of the resulting recommendations and, according to EHRM program officials, included provisions in the contract with the Cerner Corporation to address the recommendations.

Establishing a Program Office and Governance

[14] The MITRE Corporation coordinated the assessment and reported related recommendations in the VA EHRM Request for Proposal Interoperability Review Report on Jan. 31, 2018.

Our prior work has identified strong agency leadership support and governance as factors that can increase the likelihood of a program's success.[15] Such leadership and governance can come from the establishment of an effective program management organization and a related governance structure.

VA has taken steps to establish a program management office and drafted a structure for technology, functional, and joint governance of the electronic health record implementation. Specifically, in January 2018, the former VA Secretary established the EHRM Program Executive Office (PEO) that reports directly to the VA Deputy Secretary. According to EHRM program officials, this office supported the contract negotiations with the Cerner Corporation and is expected to continue to manage the program going forward.

Program officials stated that the office is beginning the process of hiring full-time employees. In addition, to support the program office, the department has awarded a contract for project management support and has also reassigned a number of VA staff to the PEO.

Further, VA has drafted a memorandum that describes the role of governance bodies within VA, as well as governance intended to facilitate coordination between DoD and VA. For example, according to the draft memorandum, within VA, the EHRM Steering Committee is expected to provide strategic direction for the efforts while monitoring progresses toward goals and advising the Secretary on the progress and performance of the EHRM efforts. This Committee is to include the Deputy Secretary, the Undersecretary for Health, and the Chief Information Officer, among others, and is to meet quarterly or as necessary to make its reports to the Secretary.

Additionally, according to EHRM program documentation, VA is in the process of establishing a Functional Governance Board, a Technical Governance Board, and a Governance Integration Board comprised of program officials intended to provide guidance; coordinate with DoD, as appropriate; and inform the Steering Committee. Further, a joint governance structure between VA and DoD has been proposed that would be expected to leverage existing joint governance facilitated by the DoD/VA Interagency Program Office.[16]

Nevertheless, while the department's plans for governance of the EHRM program provide a framework for high-level oversight for program decisions moving forward, EHRM officials have noted that the governance bodies will not be finalized until October 2018.

Preparing Initial Program Plans

Program planning is an activity for ensuring effective management of key aspects of an IT program. These key aspects include identification of the program's scope, responsible organizations, costs, and schedules.

VA has prepared initial program plans, including a preliminary timeline for deploying the new electronic health record system to its medical facilities. The department also has a proposed 90-day schedule that depicts key program activities currently underway now that the contract has been awarded. For example, the department's preliminary plans include an 8-year deployment schedule beginning with planned implementation at initial sites within 18 months of October 1, 2018.

According to the executive director for the EHRM program, the department also intends to complete a full suite of planning and acquisition management documents to guide the program. These documents include, for example, a life cycle cost estimate, a data migration plan, a change management plan, and an integrated master schedule to establish key milestones over the life of the project. EHRM PEO officials have stated that the department intends to complete the development of its initial plans for the program within 30 to 90 days of awarding the contract (between mid-June and mid-August 2018), and intends to update those plans as the program matures. The plans are to be reviewed during the milestone reviews identified in the department's formal project management framework.

Critical Factors Underlying Successful Major Acquisitions

Our prior work has determined that successfully overcoming major IT acquisition challenges can best be achieved when critical success factors are applied.[17] Specifi-

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[15] GAO, Information Technology: Opportunities for Improving Acquisitions and Operations, GAO–17–251SP (Washington, D.C.: April 11, 2017).

[16] The National Defense Authorization Act for Fiscal Year 2008 (Pub. L. No. 110–181, Sec. 1635 (2008)) called for DoD and VA to set up an interagency program office. This office is intended to function as the single point of accountability for ensuring that electronic health records systems or capabilities allow for full interoperability of health care-related information between DoD and VA.

[17] GAO–12–7.

cally, we reported in 2011 on common factors critical to the success of IT acquisitions, based on seven agencies having each identified the acquisition that best achieved the agency's respective cost, schedule, scope, and performance goals.[18] These factors remain relevant today and can serve as a model of best practices that VA could apply to enhance the likelihood that the acquisition of a new electronic health record system will be successfully achieved.

Among the agencies' seven IT investments, agency officials identified nine factors as having been critical to the success of three or more of the seven investments. These nine critical success factors are consistent with leading industry practices for IT acquisition. The factors are:

- Active engagement of senior officials with stakeholders.
- Qualified and experienced program staff.
- Support of senior department and agency executives.
- Involvement of end users and stakeholders in the development of requirements.
- Participation of end users in testing system functionality prior to formal end user acceptance testing.
- Consistency and stability of government and contractor staff.
- Prioritization of requirements by program staff.
- Regular communication maintained between program officials and the prime contractor.
- Sufficient funding.

Officials for all seven selected investments cited active engagement with program stakeholders-individuals or groups (including, in some cases, end users) with an interest in the success of the acquisition-as a critical factor to the success of those investments. Agency officials stated that stakeholders, among other things, reviewed contractor proposals during the procurement process, regularly attended program management office sponsored meetings, were working members of integrated project teams,[19] and were notified of problems and concerns as soon as possible. In addition, officials from two investments noted that actively engaging with stakeholders created transparency and trust, and increased the support from the stakeholders.

Additionally, officials for six of the seven selected investments indicated that the knowledge and skills of the program staff were critical to the success of the program. This included knowledge of acquisitions and procurement processes, monitoring of contracts, large-scale organizational transformation, Agile software development concepts,[20] and areas of program management such as earned value management and technical monitoring.

Finally, officials for five of the seven selected investments identified having the end users test and validate the system components prior to formal end user acceptance testing for deployment as critical to the success of their program. Similar to this factor, leading guidance recommends testing selected products and product components throughout the program life cycle.[21] Testing of functionality by end users prior to acceptance demonstrates, earlier rather than later in the program life cycle, that the functionality will fulfill its intended use. If problems are found during this testing, programs are typically positioned to make changes that would be less costly and disruptive than ones made later in the life cycle.

Use of the critical success factors described above can serve as a model of best practices for VA. Application of these acquisition best practices presents opportunities for the department to increase the likelihood that its planned acquisition of a

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[18] The seven departments and associated successful IT investments are the Department of Commerce, Decennial Response Integration System; Department of Defense, Global Combat Support System-Joint Increment 7; Department of Energy, Manufacturing Operations Management Project; Department of Homeland Security, Western Hemisphere Travel Initiative; Department of Transportation, Integrated Terminal Weather System; Department of the Treasury, Customer Account Data Engine 2; and Department of Veterans Affairs, Occupational Health Record-keeping System.

[19] The Office of Management and Budget defines an integrated project team as a multi-disciplinary team led by a project manager responsible and accountable for planning, budgeting, procurement, and life-cycle management of the investment to achieve its cost, schedule, and performance goals. Team skills include budgetary, financial, capital planning, procurement, user, program, architecture, earned value management, security, and other staff as appropriate.

[20] Agile software development is not a set of tools or a single methodology, but a philosophy based on selected values, such as prioritizing customer satisfaction through early and continuous delivery of valuable software; delivering working software frequently, from every couple of weeks to every couple of months; and making working software the primary measure of progress.

[21] See, for example, Carnegie Mellon Software Engineering Institute, Capability Maturity Modelr Integration for Acquisition (CMMI–ACQ), Version 1.3 (November 2010).

new electronic health record system will meet its cost, schedule, scope, and performance goals.

In conclusion, VA continued to obligate billions of dollars for its VistA system. Recently, the department has undertaken important analyses to better understand the scope of the system and identify capabilities that can be provided by the Cerner electronic health record system it is acquiring. VA has additional key activities underway, such as establishing program governance and EHRM program planning. Based on these preliminary observations and as the department continues its activities to transition from VistA to the Cerner electronic health record system, critical success factors can serve as a model of best practices that VA could apply to enhance the likelihood that the acquisition of the new system will be successfully achieved. While it is early in VA's acquisition of the Cerner system, it will be important for the department to leverage all available opportunities to ensure that its transition to a new system is carried out in the most effective manner possible. Our experience has shown that challenges can successfully be overcome through using a disciplined approach to IT acquisition management.

Chairman Roe, Ranking Member Walz, and Members of the Committee, this concludes my prepared statement. I would be pleased to respond to any questions that you may have.

GAO Contact and Staff Acknowledgments

If you or your staffs have any questions about this testimony, please contact David A. Powner at (202) 512–9286 or pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony statement. GAO staff who made key contributions to this statement are Mark Bird (Assistant Director), Jennifer Stavros-Turner (Analyst in Charge), John Bailey, Rebecca Eyler, Jacqueline Mai, Scott Pettis, and Charles Youman.

GAO HIGHLIGHTS

Why GAO Did This Study

VA provides health care services to almost 9 million veterans and their families and relies on its health information system-VistA-to do so. However, the system is more than 30 years old, is costly to maintain, and does not support interoperability with DoD and private health care providers. Since 2001, VA has pursued multiple efforts to modernize the system. In June 2017, VA announced plans to acquire the same system-the Cerner system-that DoD is implementing.

GAO was asked to summarize preliminary observations from its ongoing review of VistA and the department's efforts to acquire a new system to replace VistA. Specifically, the statement summarizes preliminary observations regarding (1) costs incurred for the system and related activities during the last 3 fiscal years; (2) key components that comprise VistA and are to be replaced; and (3) actions VA has taken to prepare for its transition to the Cerner system. The statement also discusses common factors critical to the success of IT acquisitions that GAO has previously identified.

GAO reviewed its prior reports on the VistA modernization and on critical success factors of major IT acquisitions. GAO also reviewed records of obligations for VistA for fiscal years 2015, 2016, and 2017; analyzed VA documentation that describes the scope of VistA, and reviewed program documentation.

What GAO Found

According to the Department of Veterans Affairs (VA), the Veterans Health Information Systems and Technology Architecture (VistA) and related costs, as approximated by funding obligations, were approximately $1.1 billion, $899 million, and $946 million in fiscal years 2015, 2016 and 2017, respectively. These obligations total about $3.0 billion over 3 years to support the system. As identified by the department, the obligations were to cover the costs for three programs (VistA Evolution, Interoperability, and Virtual Lifetime Electronic Record Health) and other supporting investments for activities such as networks and infrastructure sustainment. The following table provides a summary of the total VistA and VistA-related obligations.

Obligations for the Veterans Health Information Systems and Technology Architecture (VistA) for Fiscal Years 2015 through 2017, as identified by the Department of Veterans Affairs

SET TABLE HERE

GAO's preliminary results indicate that VA is working to define VistA and identify system components to be replaced by the new system. However, according to

VA officials, there is no single information source that fully defines the scope of VistA. This situation is partly due to differences in VistA at various facilities. In the absence of a complete definition of VistA, program officials have taken a number of steps to define the system's scope and identify the components that the new system will replace. These steps have included conducting analyses, performing preliminary site (medical facility) assessments, and planning for a detailed assessment of each site where the new system will be deployed.

Since VA announced in June 2017 that the department would acquire the same electronic health record system as the Department of Defense (DoD), GAO's preliminary results indicate that VA has begun taking actions to prepare for the transition from VistA. These actions have included standardizing VistA, clarifying the department's approach to interoperability, establishing governance for the new program and the framework for joint governance with DoD, and preparing initial program plans. VA is early in its effort to transition from VistA to the Cerner system and the department's actions are ongoing.

In 2011, GAO reported on nine common factors critical to the success of major IT acquisitions. Such factors include ensuring active engagement of senior officials with stakeholders and having qualified, experienced program staff. These critical success factors can serve as a model of best practices that VA could apply to enhance the likelihood that the acquisition of a new electronic health record system will be successfully achieved.

Statement For The Record

Project Management Institute (PMI)

Letter dated: June 22, 2018

The Honorable Phil Roe, M.D.
Chairman
U.S. House Committee on Veterans Affairs
335 Cannon House Office Building

The Honorable Tim Walz
Ranking Member
U.S. House Committee on Veterans Affairs
335 Cannon House Office Building
Building Washington, DC 20515

Dear Chairman Roe and Ranking Member Walz:

On behalf of our half million members and certification holders in the United States, the Project Management Institute (PMI) appreciates the opportunity to submit information to today's U.S. House of Representatives Committee on Veterans Affairs hearing entitled "VA Electronic Health Record Modernization: The Beginning of the Beginning."

As the world's leading not-for-profit professional association for the project, program and portfolio management profession, PMI works with Congress to improve the Federal government's ability to effectively manage its portfolios of projects and programs.

As the Department of Veterans Affairs (VA) embarks on the country's largest electronic health records (EHR) modernization project, PMI looks forward to working with the Committee and its new Technology Modernization Subcommittee to ensure that project, program and portfolio management leading practices are leveraged as one of the many crucial factors necessary to meet the Committee's objective of ensuring "veterans and taxpayers are protected during the transition."

Within that context, PMI is pleased to share its perspective on how project, program and portfolio management standards, workforce development, and executive sponsorship lead to greater organizational success and less wasteful Federal government spending.

Standards

The importance of adopting leading project, program and portfolio management practices is difficult to overstate. PMI's Pulse of the Professionr 2018 survey reveals that 9.9% of every dollar is wasted due to poor project performance-that's $99 million for every $1 billion invested The data further shows that when proven project, program and portfolio management practices are implemented, projects and pro-

grams meet their original goals and business intent far more often than those without.

Nationwide and globally, thousands of organizations-from small businesses and Fortune-level companies, to state and Federal government agencies-across all industries, manage their portfolios of projects and programs using the widely-accepted American National Standards Institute (ANSI) standards for project, program and portfolio management.

Within Federal agencies, ANSI standards and frameworks allow for better performance tracking, promote flexibility and agility, foster transparency and accountability, and ensure compliance with existing statutes and Office of Management and Budget (OMB) guidance (including Public Law 104–113, the "National Technology Transfer and Advancement Act of 1995;" Public Law 114–264, "The Program Management Improvement and Accountability Act," and OMB Circular No. A–119 Revised). Further, the U.S. Government Accountability Office (GAO) uses these ANSI standards as benchmarks in its evaluations, including those examining VA projects and programs.

PMI's Pulse of the Professionr 2018 survey confirms that when organizations have mature value delivery capabilities, including the incorporation of ANSI-accredited standardized practices, project and program performance improves significantly:

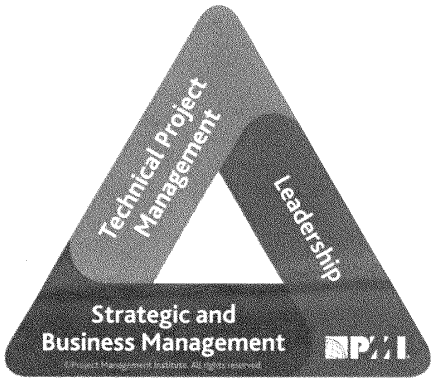
- 23% more projects and programs are completed on time
- 20% fewer projects and programs are deemed failures
- 18% more projects and programs are completed within budget
- 14% fewer projects and programs suffer from scope creep
- 13% more projects and programs meet their business goals and strategic intent

Effectively leveraging standards is even more critical for organizations engaging in highly-complex and highly-technical projects and programs, such as the VA EHR modernization project. As the Committee and Subcommittee thoughtfully carries out its oversight responsibilities, PMI encourages efforts to ensure the EHR project-and all VA projects and programs-are executed with ANSI standards as the foundation of their process considerations.

Workforce development

In today's environment of digital transformation, project, program and portfolio managers are the bridges that connect organizational strategy to implementation. As a result, there is a widening gap between employers' need for these skilled workers and the availability of qualified professionals to fill those roles. This gap is particularly acute within Federal agencies, where there has been a dramatic increase in the number of jobs requiring project-oriented skills taking place at the same time many professionals are retiring from the workforce.

To deliver their portfolios of projects and programs more effectively and efficiently, Federal agencies, including the VA, need skilled, certified project, program and portfolio managers. These important stewards of taxpayer dollars require a unique set of technical competencies, detailed in the PMI Project Manager Competency Development Framework-Third Edition, combined with leadership skills and strategic and business management expertise, as embodied in the PMI Talent Triangle.



Within the VA, the VA Acquisition Academy (VAAA) has been recognized as an industry leader for its training and development efforts, including its Program Man-

agement School. The VAAA provides best-in-class training for project and program managers, both within the VA and government-wide. Upon completion, participants receive the Federally-recognized FAC–P/PM certification, which also meets the training requirements for PMI's industry-benchmark Program Management Professional (PMPr) certification.

One example of the VAAA's effectiveness in recent years, is the Health Care Program Executive Office (PEO) established within the Veterans Health Administration (VHA). The VHA implemented the VAAA's Enterprise Program/Project Management Training Model within their PEO, which resulted in $390 million in program savings, as documented in VA Office of Inspector General report, "Audit of Savings Reported under the Office of Management and Budget's Acquisition Savings Initiative."

As the VA ramps up its EHR modernization project, the Committee and Subcommittee should ensure that all project and program management professionals working on the effort have the technical, leadership, and business management skills required to successfully deliver on behalf of our Nation's veterans.

Executive sponsorship

Leadership support for projects and programs is priceless. Actively engaged executive sponsors help organizations bridge the communications gap between influencers and implementers to significantly increase collaboration and support, boost project and program success rates, and reduce risk.

PMI analysis shows that the dominant driver of project and program success is an actively engaged executive sponsor. PMI's Pulse of the Professionr 2018 survey found that organizations with a higher percentage of projects and programs with actively engaged sponsors (more than 80%) report 40% more successful projects than those with a lower percentage of projects with executive sponsors (less than 50%). We see that effective sponsors use their influence within an organization to actively overcome challenges by communicating alignment to strategy, removing roadblocks, and driving organizational change. With this consistent engagement and support, project and program momentum will stay steady and success is more likely.

Strong executive sponsorship is critical to addressing the following persistent project and program management challenges:

- Ensuring project and program managers have the resources necessary for successful execution
- Providing leadership in the use of best practices and disciplined project and program management to reduce acquisition and procurement costs
- Empowering project and program managers to assess potential failures to achieve cost, schedule or performance parameters and direct corrective action;
- Ensuring that major acquisitions have adequate, experienced and dedicated project and program managers with relevant training and certification
- Requiring that organizations adopt widely-accepted project, program and portfolio management best practices and standards
- Maintaining certification standards for all project and program managers

Executive sponsors also enabler a culture of project and program delivery excellence. PMI research and thought leadership finds that executives who emphasize project and program awareness, alignment, and accountability, often create and reinforce most productive project and program management cultures. Within this context, it is recommended that the Committee and Subcommittee ensure the assignment and active engagement of the VA EHR modernization project executive sponsor(s) at the various stages and levels of the initiative, which will significantly improve the likelihood of a successful project outcome.

Conclusion

Thank you again for the opportunity to highlight the importance of project, program and portfolio management leading practices to delivering on the promise of the VA EHR modernization project, and VA projects and programs more broadly.

PMI shares the Committee's commitment to the men and women who bravely served in our armed forces. That's why PMI supports veterans, Active duty military, National Guard/Reserve, retirees and spouses as they seek to transition into civilian project management careers. With today's job market demanding highly qualified and skilled individuals, PMI and our nationwide network of local chapters work with our veterans to transfer the leadership and management skills they perfected while serving our country into well-paying project management oriented roles for leading employers nationwide.

For more information on how PMI works with transitioning military veterans and their families, please visit http://www.pmi.org/military.

In closing, PMI stands ready to work with the Committee, the new Subcommittee, and the VA to ensure the success of the VA EHR modernization project. If you have any questions, please contact Jordon Sims (202–772–3598 / jordon.sims@pmi.org) or Tommy Goodwin (202–772–3592 / tommy.goodwin@pmi.org) from PMI's Washington, DC office. Thank you.

Sincerely,

Mark A. Langley
President and Chief Executive Officer

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