IOWA: A LEADER IN VETERAN HEALTHCARE INNOVATION

HEARING

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C O N T E N T S

MONDAY, MAY 13, 2024

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SUBCOMMITTEE ON HEALTH,
COMMITTEE ON VETERANS' AFFAIRS,
U.S. HOUSE OF REPRESENTATIVES,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:02 a.m. Central Time, in University of Iowa, University Capitol Center, Room 1117, Iowa City, Iowa, Hon. Mariannette Miller-Meeks [chairwoman of the subcommittee] presiding.

Present: Representatives Miller-Meeks and Brownley.

OPENING STATEMENT OF MARIANNETTE MILLER-MEEKS, CHAIRWOMAN

Ms. MILLER-MEEKS. Good morning. This field hearing for the Subcommittee on Health for the U.S. House of Representatives' Committee on Veterans Affairs will come to order.

My name is Mariannette Miller-Meeks, and it is my pleasure to serve as the Congresswoman for Iowa's 1st congressional District and the chairwoman of this subcommittee.

Before we begin, I want to thank the students, faculty, and staff at the University of Iowa for providing us with this space to host this field hearing. It is a great day truly when I get to spend it in the Hawkeye State and the Hawkeye community here in Iowa, and also part of the University of Iowa where I did my residency and was the first woman on faculty at the University of Iowa's Department of Ophthalmology.

I also want to thank my colleague and friend, Representative Julia Brownley, from California, the ranking member of the subcommittee, for traveling to the district for today's hearing, as well as Dr. Clancy. I look forward to visiting Representative Brownley's district in a few months for a field hearing with California veterans and stakeholders.

I also want to thank the VA for being with us here today. Our U.S. Department of Veterans Affairs (VA) here in Iowa City is known for its quality and expert care, and as residents at the University of Iowa, we train at the VA as well. Many of the faculty have dual appointments, but it really is an institution of excellence and proud to have our VA Hospital in my district.

If I could just pause for a moment, there may be some veterans in the audience. Could you raise your hands or stand if you are a veteran.

Could we applaud them, please.

[Applause.]

Ms. MILLER-MEEKS. Thank you so much for your service to our Nation. Both Representative Brownley and I feel that it is a pleasure and an honor to serve you in Congress.

First, I am going to point out that some members of my staff are here, both my district staff and my DC staff, so if they will stand. They will point themselves out to you, and if any of you have veterans'-related issues, please feel free to stop by and ask them questions when you are leaving.

The format for today's hearing is set up to allow the audience to listen to the proceedings and the testimony of a congressional hearing as if we were in Washington, DC. This is not a town hall. It is not a campaign event, just to make sure everyone understands. This is an official hearing. If you do have issues or concerns, my staff can help you with any of the following issues you may have at the end of the hearing.

As a physician and a 24-year Army veteran, it is my top priority to ensure that the VA delivers state-of-the-art modern healthcare to veterans nationwide. I know firsthand how important technical advances in healthcare can be in ensuring that we accomplish our duty as clinicians. This mission requires constant oversight and attention to keep moving the ball forward.

During today's hearing we will discuss the transformative work that is being done in the veterans' healthcare space, work that the VA healthcare system is a leader in, as well as hearing from some of the constituents in my district who are leading the way in healthcare and veterans' entrepreneurship.

We will also discuss the partnerships the VA has made with private healthcare providers in Iowa to ensure that every veteran has access to the care that works for them.

Finally, we will examine the breakthroughs in artificial intelligence and ophthalmology that were pioneered right here in our State, as well as discussing artificial intelligence that is used throughout. There are some entities that are not yet at VA, and we know Dr. Clancy is working on that.

Recently I have had the pleasure to visit with a group called the ClearForce which is using suicide risks, behavioral modifications, and artificial intelligence to help us to identify people earlier than when they get to the point for having to call. It is a proactive way of reaching out to veterans who may be at risk for suicide.

There is also work that is being done with augmented reality, or virtual reality, for treatment of Post-Traumatic Stress Disorder (PTSD) and depression and avoidance of suicide, which we know that the VA's—one of its top priorities is to reduce the numbers of veteran suicides.

As I previously stated, innovation in healthcare is a topic that is very close to me, and I support pushing the technology envelope to reach new heights in quality medicine for veterans and all Americans. The University of Iowa Healthcare System, in partnership with the VA's Central Iowa Healthcare System, has done exactly that. The Iowa City VA Medical Center is ranked 33 out of 154 training sites for clinicians VA-wide, and the University of Iowa is also ranked highly when it comes to research and funding among U.S. public institutions.

The University of Iowa Healthcare System was also the first hospital to offer patients access to Artificial Intelligence (AI) technology in the field of ophthalmology with technology that diagnoses diabetic retinopathy pioneered by Iowa's own Dr. Michael Abramoff. One of our witnesses, Dr. Mansoor, who works with Dr. Michael Abramoff, is here today and will be speaking more on this later.

I would also like to take a minute to expand a bit on another important AI venture, the VA's Recovery Engagement and Coordination for Health-Veterans Enhanced Treatment (REACH VET) program. REACH VET is a predictive AI model that identifies veterans who may clinically benefit from enhanced care, outreach, and assessment of suicide risk. It then flags these veterans for further care. This program is active in 28 VA sites and has been able to identify around 6,700 veterans per month. It is with breakthrough technology like this that we are able to make a difference and save veterans' lives. In a rural State like Iowa, being able to have predictive models and outreach without necessarily having a footprint in the community is very important. It is with this breakthrough technology like this that we are able to make a difference and save veterans' lives.

I really am excited to be here. I look forward to this discussion we will have today. Once again, I want to thank Ranking Member Brownley for traveling to my district, Dr. Clancy as well. I yield time to her for other opening statement.

OPENING STATEMENT OF JULIA BROWNLEY, RANKING MEMBER

Ms. BROWNLEY. Thank you, Chairwoman Miller-Meeks.

I want to thank you really for inviting me to your home State and for the hospitality we have received so far. It is really a privilege to be here.

I always appreciate the opportunity to hear directly from local VA medical centers and the stakeholders and innovators that are working with them to provide the best possible care for our veterans. VA Medical Centers and facilities do not exist in a vacuum, and the partnerships that VA creates with local communities are extraordinarily crucial. I am glad to be here to hear more from the VA and from the local community members about the partnerships that have been created and how we can continue to leverage those to innovate and improve care for our veterans.

In a community like Iowa City, where a university is the lifeblood and center point of the community, those partnerships and opportunities for innovation are the most evident.

I have enjoyed learning more about the relationship between the University of Iowa and the VA in my preparation for this hearing, and I am impressed by the research and innovation you have been able to accomplish thus far.

Great ideas and innovations can come from many different places, and it is important that we support and encourage VA to take those ideas in, whether they come from the private sector, academia, veterans, or from VA's own employees. It will also be important for the VA to have set processes in place to evaluate these

ideas and determine which ones add value and quality to veterans' care.

I am very impressed by the research program at the Iowa City VA Healthcare System, and in particular, the work of the Research Center for the Prevention and Treatment of Vision Loss. While the breakthroughs in treatments discovered by the center can and should primarily benefit veterans, it is also true that its work will benefit the general population as well. We should make sure that VA can communicate with its community partners to share those innovations.

I am looking forward to hearing more from Dr. Mansoor and Mr. Blankenship about their experiences and successes, and I hope to hear more about their ability to coordinate with the VA to share those innovations.

Thank you all very much. Again, thank you, Madam Chair. I am delighted to be here, and I look forward to hearing from all of you.

Ms. MILLER-MEEKS. Thank you very much, Ranking Member Brownley.

I would now like to introduce the witnesses. On our first panel, we have Dr. Carolyn Clancy, Assistant Under Secretary for Health for the Office of Discovery, Education, and Affiliate Networks at the Veterans Health Administration (VHA); and Dr. Victoria Sharp, Deputy Chief of Staff at the Iowa City VA Healthcare System.

Dr. Clancy, you are now recognized for 5 minutes to deliver your opening statement.

STATEMENT OF CAROLYN CLANCY

Dr. CLANCY. Good morning, Chairwoman Miller-Meeks and Ranking Member Brownley. Thank you so much for the opportunity to join you in the Hawkeye State today to discuss the status of veteran healthcare in Iowa, and the State's leadership in healthcare innovation, especially around ophthalmology.

I am accompanied today, as you just noted, by Dr. Victoria Sharp, and I do want to acknowledge our two extraordinary medical center directors, Ms. Lisa Curnes from Central Iowa, and Ms. Judith Johnson-Mekota from Iowa City.

The Department takes great pride in providing a comprehensive range of healthcare services to veterans across the State through one of the leading healthcare systems serving veterans in the Midwest healthcare network for more than 50 years.

Veterans in Iowa have access to a wide range of care and support options through in-person visits, telehealth services, community partnerships, and affiliation agreements with local universities making it easier for veterans to access routine, chronic, and preventative care closer to home.

The Iowa City VA Medical Center itself is equipped with state-of-the-art technology and staffed by a team of experienced and dedicated healthcare professionals committed to delivering high-quality care, offering a wide array of primary and specialty care services, including veteran directed care, internal medicine, kidney and pancreas transplants, and more.

The Iowa City VA Healthcare System's dedicated network of facilities and clinics across the State, including 12 participating uni-

versities in Iowa, and over 21,000 active providers, ensures veterans have access to high-quality medical care, including primary care, mental health, orthotic and prosthetic clinical services, and rehabilitation programs. Community resource and referral centers also provide services to address the diverse needs of veterans, including housing, vocational rehabilitation, and personalized support.

In Fiscal Year 2023, nearly 500,000 community care outpatient appointments were made, a 75 percent increase over the last 5 fiscal years. The healthcare system has also successfully integrated telehealth to improve access and deliver specialized care to veterans. Tele-Emergency Care, or Tele-EC, is just beginning to be rolled out in this network, offering acute unscheduled episodic medical care virtually to veterans who are determined to meet an emergent or urgent level of care. In other words, these veterans get access to what my family gets because they can call me, right? They can speak to a clinician 24/7-I am worried—do I need to see someone right now? Should I be in the emergency room, or should I make an appointment as soon as I can?

The platform triages over 15,000 calls with a median wait time under 10 minutes. Nearly 70 percent of veterans using Tele-EC are less likely to need community care, reducing costs, and over 85 percent are very satisfied and trust using it.

Our strong partnerships support research in various diseases, including immunology, transplantation, pulmonary, and diabetic diseases. With 102 active researchers, VA has advanced patient-focused clinical trials for cancer, kidney and liver diseases, traumatic brain injuries, and post-traumatic stress. Investigators in Iowa City have also identified vulnerabilities for veterans with chronic pain and PTSD, partnering with relevant centers to educate providers. Another recent innovative approach focuses on virtual reality exposure therapy, allowing patients with multiple sclerosis to participate in safe exercise and mobility assessments.

Speaking to ophthalmology just for a moment or two and setting up the stage for our expert coming later, since 1998, the ophthalmology service in Iowa City has witnessed a significant increase in patient visits and surgeries with over 8,000 visits a year. The eye clinic is comprised of experienced and renowned nurses, optometrists, ophthalmologists, residents, technicians, and clerks, providing top-notch ophthalmological care. VA also supports education with three University of Iowa residents stationed at the nearby VA Medical Center.

The Iowa City Center for the Prevention and Treatment of Visual Loss is a cutting-edge research facility, as you mentioned, dedicated to advancing ophthalmology and finding innovative solutions for various eye conditions. Funded by VA's rehabilitation, research, and development positions, the Center receives an annual core funding of $1.2 million, which is leveraged into additional Federal grants from other entities of around $7 million a year. The Center applies a multidisciplinary approach exploring areas such as telemedicine, computer-aided diagnosis, neuro protection, and neurotrophic growth factors.

Let me just thank you again for the invitation to join you for this important discussion. VA remains dedicated to providing excep-

tional healthcare to our Nation's heroes in Iowa and beyond, and these initiatives really underscore or underpin our Under Secretary's initiatives, placing a high priority on innovation as a strategic driver for his priorities, including at the top of the list, soonest and best care, as well as suicide prevention.

As we navigate this evolving landscape of healthcare, we strive to learn from leaders in Iowa and elsewhere and are committed to upholding the mission of those who have served by continuously striving for innovation and excellence.

Thank you very much.

[THE PREPARED STATEMENT OF CAROLYN CLANCY APPEARS IN THE APPENDIX]

Ms. MILLER-MEEKS. Thank you so much, Dr. Clancy.

We will now proceed with questioning. As is my protocol when we are in DC, I typically will do questions last. I am going to turn to Ranking Member Brownley for any questions she might have.

Ms. BROWNLEY. Thank you, Madam Chair.

Thank you, Dr. Clancy. It is great to see you again. I never thought that I would come together with you in Iowa City, but here we are. Thank you so much for being here.

I was struck in reading your written testimony that you said that here in Iowa, that community care has increased 75 percent over the last 5 years. That is a striking number. The good news is lots of veterans asking for services for their healthcare, but I think the point of your testimony is to talk about all of the different innovations that are here, particularly here in Iowa where there are lots of rural communities that have barriers to their access to healthcare, so forth and so on, things like telehealth and VA Health Connect.

I guess I am trying to understand all of these great innovations—and there are lots of them here—all these great innovations, and yet at the same time, to really address so many veterans in rural settings, you know. Here we have all of these innovations and yet, community care continues to increase 75 percent over 5 years.

Can you talk a little bit about that?

Dr. CLANCY. Absolutely. First, our overarching priority for VA is "soonest and best care." If veterans need help, we want to help them right now, as rapidly as we can, and we want to get them to the best possible care. Getting that right balance between care that we can provide because we are more finely attuned to the unique needs of those who have served, versus getting them in faster in the community. At a time when the healthcare labor market is, I think to put it politely, in flux, I think there has been a lot of dynamics that no one fully understands just yet, some of that attributable perhaps to the pandemic and many, many other shifts.

We are struggling. I think VA has got the huge advantage of having deployed telehealth since about 2005 or 2006. Now, historically, this was almost a separate line of activity. I mean, literally separate accreditation and all kinds of things like that. The pandemic changed that quite dramatically, so that we are trying to be able to meet veterans where they are in as close to real-time as possible. This is why I think Tele-Emergency Care is such a game-changer. If I am worried now at 8 o'clock on Saturday night, I should not have to think, great, I have to wait until first thing

Monday morning. I can actually pick up the phone now and be getting advice from a clinician in very short order. That is the direction that we are headed.

I hope that helps.

Ms. BROWNLEY. Thank you.

I think when the Chairwoman had her opening comments she talked about veterans at risk for suicide and a program that is now identifying 6,700 at risk veterans on a per-month basis, which I had not heard that statistic before. I am pretty impressed.

I am curious to know, of 6,700 veterans who are identified on a per-month basis, do you have any data, statistics to say, you know, what happens to that 6,700 population? I am assuming there is a lot of screening that goes on in each one of those cases, and we get to a place of maybe medication or something, but we might find that some veterans are really at risk for suicidal ideation.

Do you have any data on that?

Dr. CLANCY. We do, and I would be happy to get you a more detailed readout for the record.

What I can tell you with complete confidence is that we have seen decreased incidents in suicidal ideation and suicide attempts, which we think is extremely important. To be clear, this particular model is for veterans who have been getting their care within our system. Although we feel fully responsible for all veterans, whether they are connected to us or not, this is only for veterans in our system. It really is taking care to the next level, which is saying, you know, instead of, like, responding to phone calls, if you will, you remember the old pink slips that would be sitting on a pile, you are actually using AI to prioritize those at the highest risk. That, I think, is the game-changer, and I think we are going to see a lot more of that in healthcare. We track this on a monthly basis. In fact, our two directors are very quick to show me their statistics, and so forth, but we can get you all that.

Ms. BROWNLEY. Thank you.

I yield back.

Ms. MILLER-MEEKS. Thank you very much, Ranking Member Brownley.

I am just going to dovetail on that. When speaking about community care—and I think Dr. Sharp could even elucidate that more. The power of AI to be able to deliver care remotely, to increase access to prevention and affordability, all of those things which we are all concerned about in healthcare in general, but also at the VA, I think that the power of artificial intelligence, or augmented intelligence, really is that innovative breakthrough that we are looking for and I think can help with a lot of that, especially in rural areas, which is one of the reasons that we are talking about this today.

Dr. Sharp, I am going to ask you something. We had a hearing, the Health Subcommittee, in DC on artificial intelligence and VA healthcare. We had the chair of the Oversight Subcommittee who had brought up that he thought that if we are using AI, that we should get a consent from a veteran every time we use AI.

In your experience as the Deputy Chief, I am sure that you can tell us of where—you know, some places where AI is being utilized. Would this be something that would be feasible to do, to get per-

mission from a veteran every time AI is used? Would it be cumbersome? Would you have some thoughts on that? Because as we make policy, this would be very important in actual delivery of care.

Dr. CLANCY. I am just going to start this off a little bit just to say we are fully committed to being very transparent with all of our veterans about everything that we are doing. Clearly, if it involves personally identifiable information or their health information, yes, informed consent will be part of it.

As you know, the President issued an Executive Order last October, and we are now working through it very, very carefully—I mean, very carefully—how do we go about all of this and when is it that we need consent and when is it that we do not.

Just to give you an example where we might not, some of our colleagues at another facility in California, but not your end of the State, Representative Brownley, were using a kind of AI to use an enterprise scheduling approach for nursing, right. Rather than having every single unit do their own scheduling, they were looking at how much can we shift off and also, frankly, making needed changes, who is going to be the next person who has to work overtime in a much fairer way. You do not need informed consent from veterans for that, but that is an application for you.

I will leave it to you, Dr. Sharp.

Ms. MILLER-MEEKS. Yes, ma'am. Dr. Clancy, I did not mean to imply that the VA was not being transparent.

Dr. CLANCY. Yes.

Ms. MILLER-MEEKS. It is more from delivering clinical care, especially when you have manpower shortage or person shortage, when you have a healthcare workforce shortage, how cumbersome would it be and does it need to be consent for every time you are using artificial intelligence as you detailed beautifully, so——

Dr. CLANCY. I will just mention we are, I think, as you know, going to be doing some test sprints in the near future with some very carefully thought-through pilots. Those by definition—this is using ambient dictation, right—veterans will have to give informed consent to be part of this. We will learn on the ground how onerous it would be or not.

Ms. MILLER-MEEKS. Thank you so much.

Dr. Sharp.

Dr. SHARP. Thank you.

For now, you know, we have limited use of AI, and we are looking at many applications going forward. I mean, currently, we have our AI research, and so we definitely get the veteran's consent for that. As we move forward, then I think we will have to evaluate it, right? We will want to make sure veterans are protected. We will in the situations that we need to, just like we get consents for—you know, when we do surgical procedures, we always just want to make sure that everything—you know, the veterans are protected. We will just have to see as we go forward to the situation.

Ms. MILLER-MEEKS. Thank you.

Dr. Sharp, can you expand on some of the areas where the VA has improved its quality of healthcare delivery to veterans in Iowa in the last few years.

Dr. SHARP. I can talk about a couple of our programs that we built. We are—our veterans, many of them are in rural areas, so I just want to bring up a couple of things that we are doing, because we want to take the care to them. We think that we provide great quality care, and so we want them to get their care in the VA, although getting it wherever they need, you know, in their communities.

A couple of things, though, that we have done is we have home-based cardiac and pulmonary rehabilitation programs, and we have the cardiac rehabilitation program going currently, and then we are going to do the pulmonary soon. It is a tele program, and they work with their cardiologist or pulmonologist at the VA, and then we found it is like a 12-week exercise, nutrition program. We are doing that. We have got great results from the veterans. They are very happy about it.

A couple of other things we have done, recently in our cardiology electrophysiology service line, we implanted our first cardiac contractility modulation device, which is for heart failure therapy, and it improves their outcomes and their quality of life. Also, we are just among a small number of hospitals in the State that are able to provide that therapy.

The other thing is we just recently had approval to implant a leadless pacemaker. It is the smallest pacemaker on the market, and it has got a battery life of 16 to 17 years.

By doing these things, we think we can increase the procedures we do. We have an Electrophysiology (EP) lab that we are working to get—it will be ready for us to improve these—or expand these procedures soon. We think it is great that we are doing these great things.

Ms. MILLER-MEEKS. There is remote monitoring with those?

Dr. SHARP. I think so.

Dr. CLANCY. Yes.

Ms. MILLER-MEEKS. Thank you.

I will now recognize Representative Brownley for some additional questions.

Ms. BROWNLEY. Thank you, Madam Chair. I appreciate that.

Dr. Sharp, I just wanted to ask you from your perspective why you think community care has increased so significantly here over the last 5 years?

Dr. SHARP. Well, the reason that I think that it has increased, I think—well, one, is we have an increased number of veterans that we are caring for. Also, you know, in healthcare, the pandemic probably played some role with staffing shortages, things like that. We are working to look at the veterans that we serve. We want to make sure that they get the care that they deserve and that they want. We are trying to do things to help them, so we are doing, you know, telehealth. We are doing these VA Video Connect (VVC) visits. We are doing those types of things. We have our community care outreach clinics, and we are—traditionally it was primary care, mental health. We are really working to expand our specialty care services there. We have cardiology, orthopedics. We are looking to expand all the services we can. We want to take the care to them as best we can.

Yes, so we are trying to help and——

Ms. BROWNLEY. If you work and extrapolate COVID, because I can see how COVID would impact a 5-year data situation, if you were going to look at that, you know, for the last 2 years anyway, do you still see that kind of increase or can you—is it flat? Is it declining? Do you have any sense of what is happening in community care?

Dr. SHARP. Well, in our facility we watch it. You know, we monitor it, and we try to make sure we have the services. We are looking at a number of our operations, things like that. We are kind of getting back to that prepandemic level. Also, just the referrals, is how we look at it—our referrals to the care in the community was rapidly going up. It is not going up as much anymore. We are really looking internally, talking to the veterans, you know, because many of them prefer to get their healthcare within the VA, so trying to make sure that we have the access, looking at all of those components to make sure that they can get the care they want and where they want it.

We hope—I mean, you know, there is no way to predict the future, but we are trying all we can to get them the care where they want, and many of them prefer the VA for that.

Ms. BROWNLEY. Yes. I mean, my conversations with veterans is that they would prefer to get their healthcare within the VA and, once they are in the VA, find that the healthcare is pretty extraordinary.

I know for women veterans, there are a lot of services that the VA does not offer, pregnancy, for example—I know pregnancy, but deliveries of babies have to happen outside of the VA. There are a lot of different services for—specialized services for women that do not happen in the VA. You might have more services here that I am not aware of. I know that that is a requirement to go out to the community. There is not a choice there.

Anyway——

Dr. CLANCY. If I could just add——

Ms. BROWNLEY [continuing]. you know, it is something that is—you know, with community care being on the rise, I agree, I do believe that the VA cannot offer all of its services without the help and support of community services. I absolutely believe in that. On the other hand, we want to make sure that we are maximizing those services within the VA to the degree that we can. Care outside of the VA is more expensive, and we would like to be using those resources to continuously improve those services, you know, within the VA. That is the reason I am asking.

Dr. SHARP. Yes. One comment about that are women's health services. I mean, we have really worked hard, you know, in trying to provide services. We, you know, really try to have a full suite of services for our women veterans. You know, we have gynecologists, and we have urologists and, you know, breast surgeons, so we have really a full suite. The maternity care, we help them get—you know right, we do not deliver their babies, but we do keep in touch with them during their pregnancy. We help them get whoever they want, but we also do baby showers, and we do all kinds of things. We do not want them to feel that they are no longer connected to the VA during that time of their pregnancy.

We really try hard, and we have a number of women veterans who really love to get their care with us here in Iowa City, and also in the Des Moines VA.

Ms. BROWNLEY. Do you know the ratio for the maternity care for the person who is responsible for these young women who are getting their care in the community? Is it 1-to–10? Or 1-to–100? Or—I mean, I have been to some VA hospitals where it has been well over a hundred per—I cannot remember what they are called—maternity coordinators perhaps.

Dr. CLANCY. Yes. That has actually become sort of an enterprise function.

Last summer, VHA had its first ever Maternal Health Summit, which was just unbelievable to be there, because it turned out across our system many, many coordinators were trying to do slightly different things. Together, they have made a shared commitment to follow women for a year after they have delivered, particularly on the lookout for mental health issues which tend to be more common in the women that were serving, but also to let them know we are here, we have got you, and we are following, and it is not like we are saying goodbye because you had a baby and had the baby delivered elsewhere.

Ms. BROWNLEY. Yes. One last quick question, just one more.

She runs a tight ship. I am just saying. Just one quick question.

Can you roughly give me an idea of all of your veterans who are, you know, under the category of rural veterans who distance or, you know, there are other barriers to access to that care, sort of what percentage of those veterans in your overall veteran population?

Dr. SHARP. I do not have the specific numbers, but I do know there is a large number.

Ms. BROWNLEY. I mean, just roughly, like, would you say half?

Dr. SHARP. I do not even think I can guess.

Ms. BROWNLEY. Yes. You cannot guess.

Dr. SHARP. There is a lot of them, but, yes, I do not want to give a number when I do not really know.

Ms. BROWNLEY. All right. Thanks. Great.

I yield back, Madam Chair.

Dr. SHARP. We can get that information to you.

Ms. MILLER-MEEKS. I was going to try and answer that question. The 1st congressional District has over 50,000 veterans. We have the Iowa City VA facility, and the next closest would be in Des Moines. Those are just the veterans that are registered for care within the VA system, so 50,000, one institution. We do have certainly clinics and other opportunities throughout the State. Most of our counties have a clinic as well, but it is a large population—we have a large population of veterans in Iowa and in the 1st congressional District.

Maybe that will help a little bit, but certainly we can get that breakdown for you as well.

I have no further follow-up questions.

Thank you, Ranking Member Brownley.

On behalf of the subcommittee, I want to thank you both for your testimony and for joining us today. We are going to seat the next

panel. You are now excused, and we are going to wait for a moment while the second panel comes to the witness table.

[Discussion off the record.]

Ms. MILLER-MEEKS. Thank you very much.

Welcome everyone, and thank you for the participation in today's field hearing.

Joining us today is Dr. Mansoor, resident at the University of Iowa, Department of Ophthalmology; Brandon Blankenship, chief technology officer at Pro Circular.

Dr. Mansoor, you are now recognized for 5 minutes for your opening statement.

STATEMENT OF DR. MAHSAW MANSOOR

Dr. MANSOOR. Chairwoman Miller-Meeks, Ranking Member Brownley, and distinguished members of the subcommittee, on behalf of the University of Iowa Health Care, thank you so much for the opportunity to appear before you here today to discuss innovations in veterans' healthcare in the State of Iowa.

I am Mahsaw Mansoor, a resident physician at the university completing my training proudly in ophthalmology. I have also proudly been training in the veterans' affairs healthcare system for the past 8 years.

Before we discuss the exciting progress here in Iowa, I would like to share why this topic is deeply personal to me. As a second generation Iranian-American, I cherish the values of the American heartland. We are a community rooted in unspoken truths of integrity, self-sufficiency, and hard work. This, of course, lends naturally to the American dream and the immigrant values that were instilled in me by my parents.

Much of our very beautiful State is composed of rural farms and small-town communities, and I promise you it is the heart of America that lives in these small towns. This means, however, our patients travel very far to access care. The social determinants of access to care quickly then become apparent. Transportation, loss of a day's wages, inability to tend to the farm, and unpredictable weather, are few among many. This translates to missed appointments, delayed care, and economic impacts that are immeasurable.

That is why I am here before you today to share the impact of autonomous AI in deconstructing these barriers. No veteran, Iowan, or American should ever fall into the ranks of an invisible population that does not have access to care.

Complications from diabetes are the leading cause of blindness in working age adults in our country. In Iowa, about 10 percent of the adult population has been diagnosed with diabetes, and it is estimated that the economic burden in our State alone is greater than $2.5 billion each year.

Despite the obvious economic and health implications, many are surprised to actually learn that diabetic eye disease can be prevented with screening and early detection. In most settings this involves a minimum of an annual visit to an ophthalmologist. Yet the social determinants we discussed are a barrier to adequate screening, both nationally and globally.

This is where we have led the way in developing autonomous AI that allows for enhanced screening in a safe, and importantly, ethical manner even to the smallest rural communities of our State.

Let me share the story of Digital Diagnostics, an Iowa-founded AI company. Digital Diagnostics was founded in 2010 by my colleague and mentor, Dr. Michael Abramoff, right here down the street in Coralville. As a healthcare tech company, Digital Diagnostics designs and implements AI systems that can diagnose eye disease by analyzing high-quality images.

Our flagship product, LumineticsCore, is an AI system designed to diagnose diabetic-related eye disease but without needing a physician to ever look at the images. It is the fastest growing patient-facing medical AI in the world. LumineticsCore effectively allows specialty service care to be performed by a minimally trained camera operator to detect diabetic retinopathy at the point of care, such as a primary eye—primary care clinic, not an eye care clinic. This allows for only those who have positive diabetic retinopathy diagnosis to then be referred to see the specialist to establish a care management plan. The burden is thusly reduced for both the patient and the specialist.

Digital Diagnostics has also helped pave the path for the use of AI diagnosis in healthcare. Our Iowa-led team was pivotal in establishing many firsts, including the first U.S. Food and Drug Administration (FDA) approval of an autonomous diagnostic system in 2018, and then the creation of the first ever autonomous AI Current Procedural Terminology (CPT) code for billing and payment in 2019.

Encouragingly, emerging evidence from randomized control trials highlights the impact of autonomous AI for diabetic eye exams in primary care patients to improve health equity, reduce access disparities, increase physician productivity, and improve adherence to care.

We have shown at Iowa that autonomous AI is a scalable solution to a problem long considered intractable. In our State and others, AI diagnosis will increase our reach and allow greater access to our rural communities.

Currently Digital Diagnostics has more than 600 sites under contract with about 100,000 exams performed annually in the United States. Through the pioneering efforts of Dr. Abramoff, Centers for Medicare and Medicaid Services (CMS) has created a reimbursement model for LumineticsCore which allows patients to continue to access this incredibly important exam.

In Iowa, we have a team dedicated to bridging the gap to deliver care to those that need it most. Our group has paved the way for autonomous AI in an ethical way. Through continued vision research, we are committed to improving access to Iowans and veterans across this State.

Again, our group would like to thank Chairwoman Miller-Meeks, Ranking Member Brownley for allowing an opportunity to testify before you today. We have no greater priority than ensuring our veterans have access to the highest quality care, and we are privileged to continue in a path that benefits our veterans and our Iowans.

[THE PREPARED STATEMENT OF MAHSAW MANSOOR APPEARS IN THE APPENDIX]

Ms. MILLER-MEEKS. Thank you, Dr. Mansoor. I will tell Dr. Abramoff you did very well. If only we had the device and we could show everyone here, it is quite impressive.

Dr. MANSOOR. Yes.

Ms. MILLER-MEEKS. Mr. Blankenship, you are now recognized for 5 minutes to deliver your opening statement.

STATEMENT OF BRANDON BLANKENSHIP

Mr. BLANKENSHIP. Thank you.

Good morning, ladies and gentlemen. Thank you for the opportunity to testify today.

Although I am the chief information security officer for Pro Circular, a cybersecurity services firm based out of Iowa, I believe that my value to the subcommittee can be best vocalized as a recipient of VA care.

I am an Iraq War veteran that led a squad of Marines in the Triangle of Death in 2004. Upon my return in 2005, I experienced some of the scheduling and administrative challenges navigating the VA.

On the AI topic, as a cybersecurity professional, in recent years, I have seen, firsthand, the incredible benefits of using artificial intelligence and machine learning in cybersecurity, not only to enhance the accuracy and speed and detection models to identify threatening malware behaviors, but to automate research tasks. As others have articulated, the VA has mountains of data at its disposal. This data can be used by doctors, nurses, administrative staff to better serve veterans. However, the issue is that much of this data is either unstructured or difficult to query. Effectively this data is unavailable to the staff and doctors to use in any meaningful way in a timely manner simply because they are drowning in data. AI, or machine learning algorithms, are fantastic at pattern recognition, and will continue to improve as results of those patterns are used to train the models further.

Imagine how beneficial it would be for a doctor to have the top five recommended issues ready for review before seeing a patient. Those potential diagnoses and remediations would be based on decades of hard data and thousands of discreet data fields rather than fallible human bias and individual best effort.

The Artificial Intelligence Markup Language (AIML) could be seen as a genius intern that excels in processing large amounts of data quickly and accurately making correlations based on historical facts and individual patient history. These recommendations could be given to the doctor as a force multiplier without cutting out the expert human judgment. It would allow the doctors to make use of currently unusable data to make real-time, fact-based decisions and ultimately better serve veterans.

My personal experience with the VA centered on administrative problems. After returning from a war zone, I went to the VA to get my hearing checked within weeks. The visit took most of the day, and the only thing that was accomplished was to get into the system and have an opportunity to be scheduled for a hearing test. I was not allowed to negotiate the date for scheduling like a normal doctor's office.

I later received a letter in the mail informing me that my hearing test appointment was the following day, which I was unable to attend because of a conflict, and that was 19 years ago, and I have never been back. I fully acknowledge that I chose not to use the VA because of my frustration with the scheduling process. However, multiply my personal experience times millions of veterans to understand the scope. If the scheduling process is frustrating and counterintuitive, effectively veterans are being denied care.

Because it has been two decades since I have experienced fire Fights and suicide car bombs with no hearing protection, it is unlikely I will be able to prove that my hearing loss is as a result of military service. I want to say this super clearly. The focus is not about my personal journey, but rather, acknowledging that AI and chatbots or scheduling personal assistants can be used to streamline and achieve efficiency gains for the Department of Veterans Affairs. If we can do better to cut down cycle time and defects in scheduling and navigating a complicated system, fewer veterans will self-select out of the care they need and deserve.

AI can be used for predictive analysis, for resource allocation by analyzing historical data, and AI can predict demand for healthcare services enabling the VA to allocate resources effectively and ensure timely access to care for veterans.

It can also be used for faster diagnosis and treatment, and research and development. However, I believe that by simply improving the administrative process, we can provide an enhanced and better experience.

Thank you very much.

[THE PREPARED STATEMENT OF BRANDON BLANKENSHIP APPEARS IN THE APPENDIX]

Ms. MILLER-MEEKS. Thank you very much, Mr. Blankenship.

It is really incredible the opportunities I think that we have, and as Members of Congress, we have the very difficult task of making regulations and laws and legislating an area which we may not be as intimately familiar with as both of you are.

I will now recognize Ranking Member Brownley for any questions that she might have.

Ms. BROWNLEY. Thank you very much.

I must say, Mr. Blankenship, you are not the first to inform us that you have had issues with getting appointments and interacting with the VA, so apologize for that.

I think that, you know, in terms of the services that you are providing currently in your job, but AI in general could be a huge—and I believe this very, very strongly—could be a huge piece of the puzzle in terms of improving all of these systems, you know, within the VA. We have all of these old systems. I mean, one of my frustrations having been on this committee now for 12 years is whenever we stand up a new program, we need a system to support it, some automated, computerized system, and that is always the delay of standing up these new innovations.

I wish you would come to the VA and head up this idea of looking at systems throughout the larger enterprise of the VA and show us how we can improve all of those systems. I mean, the VA back in the day was a leader in electronic health records. Now we are sort of behind in that in following what private industry is try-

ing to do and improve our legacy system that has been there for a long, long time.

We really need you and folks like you to help the VA move in this direction in a very precise way. Your point about mountains of data, I mean, this is the one advantage, I think, that the VA has over any other institution across the country is that we have an inordinate amount of data, and that is why so many researchers are attracted to working with the VA because there is so much data there. You know, how we can improve upon that is also, I think, very, very important.

Thank you for your testimony today, and thank you for pointing out where we can do a much better job to serve our veterans. I appreciate it.

Dr. Mansoor, thank you for your testimony. I wish we could replicate you across the VA. I love your enthusiasm. I think you are the first resident that has ever testified in front of this committee, at least in my 12 years, so thank you certainly for being here.

You mentioned—there are two areas that I want to ask you. One is, you said this can all be provided—AI can be provided in an ethical way. Back to the Chairwoman's original question, I want to hear a little bit about that. Also, I am interested to know if you have any data in terms of—I understand that the population in Iowa, there is about 10 percent that are suffering from diabetes, and how—you know, if you have data to show how you improve those percentages.

Dr. MANSOOR. Thank you so much. It is truly a privilege to be here today.

To your first question, delivering AI in an ethical way, probably less than a decade ago, we did not even—the landscape was completely different. You know, this is not a hype cycle. This is not something that is here and then going to be gone and we are on to the next thing.

In order to have technology that is going to do those things we want it to do, increase access to care, reduce these barriers that we have all talked about, it has to be deployed in an ethical way, right? There are two comments on that.

The one is machine learning and deep learning AI, assisted AI, all of these technologies have—we want to make sure that they are not inherently becoming biased, because you can run the danger of actually exacerbating issues that we are here talking about today.

To that end, you know, I am very grateful for the support both, of course, from the university but from our VA as well, that has allowed us and, of course, Dr. Abramoff who cannot be here today to lead this landscape. You know, we have to analyze all of this, and a lot has been written now in the literature of what does it mean to be ethical. We go back to kind of our principles in medicine where do no harm, right? Nonmaleficence, beneficence autonomy. You have to respect a patient's right for self-determination and then, very importantly, justice.

By engaging in a discussion with ethicists and really experts and thought leaders in this field, Dr. Abramoff and the team at Digital Diagnostics has really led the conceptual bioethical framework that has allowed for deployment of AI successfully.

I think, you know, our motto is AI the right way, and we really mean that. You know, none of this is going to be helpful if we cannot find a way to do it ethically in a manner that protects our patients first and foremost. That is kind of to that end.

Then I knew this question would come up about the data in Iowa, and I actually pushed internally for a lot of that. I think, unfortunately, it is a bit—you know, it is confidential. I will tell you this: We talked about 10 percent of our patients in the State of Iowa, about 10 percent—and really that is kind of reflected nationally as well, but 10 percent, so one in 10 Americans has diabetes. I will tell you over 85 percent of those patients are not getting their annual eye exam, and we know that of those, probably 10 percent at least have diabetic retinopathy.

I cannot speak to the specific numbers in our own county, I wish—or county or State. I really wish I could. I want that data too. I will say when you look at the more granular numbers that are there, you really realize what is happening in our country, in our State. You know, my parents immigrated from an impoverished, you know, frankly, Third-World area. This is why I have this enthusiasm, because I am here to stay, and people like me are here to stay, and we are going to make this difference.

Right now, greater than 25 percent of counties in this country, the population does not have access to an eye care provider. If we can deconstruct that work, especially in a State like Iowa where the majority are coming from, rural areas, small towns, I think it is hard to imagine a reality where we are not going to be improving the status quo.

Ms. BROWNLEY. Thank you.

Ms. MILLER-MEEKS. Thank you very much.

I would say Dr. Abramoff and I have had this conversation for well over 20 years.

Dr. MANSOOR. Yes.

Ms. MILLER-MEEKS. To see this come to fruition and the primary impetus, as you said, was to get access to care so this particular device can be placed in any place without an eye care provider and have an undilated exam. If an individual is at a pediatrician's office and it is Type 1 diabetes, and so, they have—the course of the disease, the length of disease is important in the severity or development of diabetic retinopathy, but if it is accessed at a clinic where they are with their family practitioner, with their internist, they do not have to see the ophthalmologist, but the AI part of that which allows that to occur through machine learning, through repetitive images that were—you know, all of those were collated, examined, and then developed into an algorithm that says this individual needs to have further care, not just an eye exam in a year.

The ability to disperse that districtwide, statewide, nationwide I think is extremely powerful, and it has both, as we said to begin with, prevention, affordability, and access, so those things that are critically important to us in healthcare.

Dr. Mansoor, can you expand a little bit more on AI research projects being conducted at the Iowa City Center for Prevention and Treatment of Blindness?

Dr. MANSOOR. Absolutely.

Thank you to the VA system, of course, for supporting this research that we do here, and many kudos and thanks and gratitude to Dr. Randy Kardon, who is also not here, but also hopefully soon to be colleague and mentor.

We are doing quite a bit. Right now, there are eight open grants that are funding a myriad of projects, a myriad of projects. We have—I think at the core, if I can boil it down, we are leveraging AI deep learning to our imaging modalities, which we have the state-of-the-art here for our veterans in our Iowa City VA. We are using the power of the machine learning in developing spatial recognition patterns of both the optic nerve and then areas of the retina as well. You know, we have talked a lot about diabetic eye disease, of course, because the implications are massive, but it does not stop there.

Our team led by Dr. Kardon is also investigating actively blood flow to the retina that may be affected in age-related macular degeneration, of course, which affects many people, many veterans, of course, and then internationally as well.

Other sight blinding diseases, like glaucoma, which I am sure you have heard of, multiple sclerosis, radiation-induced retinopathy, which is a disease that impacts the retina after having radiation treatment for cancer, and really, one of the areas of particular interest, especially in patients who are combat veterans, is eye movement related disorders. One just quick word about a project where we are actually using a virtually reality headset to capture the eye movement of our veterans in real-time and then using our machine learning algorithms to better understand how these eye movement disorders are actually then causing symptoms, and how we can mitigate all of that. The point being, right now with this immense data, we want to not just prognosticate and treat, but we want to prevent, so all of that coming out of our center here, which we are very proud of.

Ms. MILLER-MEEKS. Thank you very much.

Mr. Blankenship, I can see you smiling as we are discussing this, so it is definitely where your passion is. I am going to ask you to expand a little bit on the barriers you have experienced while working with the VA Healthcare System, not in a negative way. You are an entrepreneur. You use some of the challenges you have had to make a system better, and I think it is important for us to understand how we can help the VA to incorporate AI and AI that is going to help us with, you know, again, affordability, access, and prevention?

Mr. BLANKENSHIP. Absolutely.

I think a quick win that we could have is just using large language models, Chat Generative Pre-trained Transformer (ChatGPT), something very simple. I know that ChatGPT is not the depth and breadth of AI machine learning, but it is something that is very low hanging fruit. If we use something like that to establish patterns in correspondence with people seeking care and using that to draft letters and using a scheduling assistant from some large language model, I think that would have pretty immediate beneficial effects. That would be one.

The other concept that crosses my mind is ensuring that we protect the back-end data. Any time we use—we train an AI model,

there has to be a repository where all of the data points are stored. If those data points are used to train models that are outside of our system, then we lose control of those data points. It is effectively personally identifiable information and Health Insurance Portability and Accountability Act (HIPAA) data.

The downside if we do not keep control of that data—it is a data governance issue—is that those diagnoses or those data points might show up in other models. We have to be very careful of that in our business where we do not want a client's name showing up on another report.

Although it is a lower risk for our organization, it would be a higher risk for VA.

Ms. MILLER-MEEKS. I think that is one of the areas that we are all concerned about, which is data governance and privacy.

Thank you both very much, Dr. Mansoor and Mr. Blankenship, for your testimony, answering our questions.

Ranking Member Brownley, would you like to make any closing remarks?

Ms. BROWNLEY. I think I just want to say it is delightful to be here. I am very impressed with everything that is going on here in the Medical Center and the State in general. I just, you know, appreciate all of you in this room who are committed to supporting our veterans and making sure that they get the very best healthcare that they have earned and deserved. We feel very, very strongly about that, and we are continuously trying to improve upon that.

You know, any feedback that you can give us in terms of what we can be doing to help you, and what you are trying to do to help our veterans, we certainly want to hear. It does not always have to come through a hearing. You can contact us at any time, and certainly you can contact me at any time. Please do that.

Again, I just thank you from the bottom of my heart for all of the services that you provide to our veterans and the quality healthcare that you provide.

Ms. MILLER-MEEKS. Thank you, Ranking Member Brownley.

It has really been a pleasure to be with you all here in Iowa's 1st congressional District. I want to thank everyone for coming out today, our witnesses, the VA, and also especially thanks to the staff both on the Democrat side and the Republican side, as well as my district staff. Thank you all for that.

Innovation in veterans' healthcare space is an important topic, and it is a duty of ours. Iowa is doing amazing work in this space, and I am proud to highlight it. We owe it to our veterans to ensure that they receive quality healthcare and access to that quality healthcare.

Again, I would like to thank Ranking Member Brownley for coming out to my district, and I look forward to going to hers later in this year. I hope to continue working with our colleagues across the aisle to ensure that we do our duty as Congress and serve those who served us.

The complete written statements of today's witnesses will be entered into the congressional hearing record.

I ask unanimous consent that all members have 5 legislative days to revise and extend their remarks and include extraneous material.

Hearing no objection, so ordered.

Thank you all so very much for your participation in today's hearing.

This hearing is now adjourned.

[Whereupon, at 11:03 a.m., the subcommittee was adjourned.]

A P P E N D I X

PREPARED STATEMENTS OF WITNESSES

Prepared Statement of Carolyn Clancy

Good morning, Chairwoman Miller-Meeks, Ranking Member Brownley, and Members of the Subcommittee. Thank you for this opportunity to join you in the "Hawkeye State" today to discuss the status of Veteran health care in Iowa and the state's leadership in health care innovation, especially around ophthalmology. I am joined today by Dr. Victoria Sharp, who serves as the Deputy Chief of Staff at the VA Iowa City Healthcare System (VAICHS).

Status of Health Care in Iowa

The Department takes pride in providing a comprehensive range of health care services to Veterans in Iowa through one of the leading health care systems serving Veterans in Veterans Integrated Service Network (VISN) 23: VA Midwest Health Care Network. The Iowa City VA Medical Center (VAMC), rated 5 stars by the Centers for Medicare and Medicaid Services, offers a wide array of primary and specialty care services, including Veteran-directed care programs, internal medicine, surgery, mental health, kidney and pancreas transplants, and more. The facility is equipped with state-of-the-art technology and staffed by a team of experienced and dedicated health care professionals committed to delivering high-quality care to the Veterans they serve. VA Central Iowa Healthcare System also offers innovative technology such as the virtual reality treatment used within the Physical Therapy (PT) department to treat multiple sclerosis. This treatment allows Veterans to safely exercise and regain mobility while measuring range of motion, perform assessments, work on strength training, and improve balance. Additionally, Iowa delivers care at 15 community-based outpatient clinics (CBOC) throughout the State, making it easier for Veterans to access care closer to home. These clinics provide services like routine check-ups, chronic disease management, and preventive care. Our dedicated network of facilities and clinics across the State ensures Veterans have access to high-quality medical care, including primary care, mental health services, specialty care, and rehabilitation programs.

Access to Diverse Care and Support Modalities

Through a combination of in-person visits, telehealth services, and community partnerships, Veterans have more options than ever before to receive high-quality, timely care when and where they need it. Universities are important partners in delivering care to Veterans through the Community Care Network (CCN). There are 12 universities actively participating in the CCN throughout Iowa. When eligible, Veterans can access care in the community through the CCN, which has 21,224 active providers. In Fiscal Year (FY) 2023, Veterans in Iowa had nearly 500,000 Community Care outpatient appointments, a 75 percent increase over the last 5 fiscal years.[1]

Community Resource and Referral Centers also play a vital role in supporting Veterans and their families. These Centers provide a wide range of services and resources to address the diverse needs of the Veteran community. One key service offered is the U.S. Department of Housing and Urban Development (HUD)-VA Supportive Housing (VASH) program, which combines HUD housing vouchers with VA supportive services to help homeless Veterans and their families find and sustain permanent housing. Additionally, the Grant and Per Diem program assists in providing transitional housing and supportive services to homeless Veterans. Another service that homeless veterans are referred to is the Department of Labor's (DOL) Homeless Veterans' Reintegration Program (HVRP), a competitive grant program whose sole purpose is to work with veterans who are experiencing homelessness, or who are at risk of homelessness. DOL's Veterans' Employment and Training Service

[1] Between Fiscal Year 2019 and Fiscal Year 2023, Community Care outpatient appointments in Iowa have increased by 75 percent, rising from 371,603 to 497,931.

(VETS) funds two HVRP grantees in Iowa, Vocational Rehabilitation Specialists Inc. and Goodwill Industries of the Heartland.

Beyond housing and outreach, these Centers connect Veterans with Vocational Rehabilitation programs to help them develop job skills and find employment opportunities. Many Centers maintain a food pantry, clothing closet, and facilities for showers and laundry, ensuring basic necessities are met. Equally important are the regular visits and personalized support provided by dedicated staff. They work tirelessly to assess each Veteran's unique situation and connect them with appropriate resources and services to address their specific needs.

Innovative Uses of Telehealth

VAICHS has taken significant strides to strategically incorporate telehealth, enhancing access and delivering specialized care to Veterans across its service area. Notably, the system implemented a robust telehealth program for audiology and speech pathology services, providing diagnostic and treatment services to Veterans in CBOCs and patient homes. The Mobile Audiology Clinic serves over 1,000 Veterans annually, while the cochlear implant surgical site offers specialized services for deafened Veterans.

An additional telehealth program was developed and piloted to deliver infectious disease (ID) physician expertise to rural VAMCs. The pilot program reduced unnecessary antibiotic use in three Community Living Centers by 30 percent and was well——received by frontline providers due to its user-friendly design, seamless integration into workflows, ease of administration, and ability to connect experts with their patients.

The Department also launched VA Health Connect, modernizing the Veteran health care experience by offering a 24/7 virtual care option on the phone, through VA Video Connect or through chat with a real person. It offers Veterans in Iowa the opportunity to speak with a nurse, schedule, confirm or cancel medical appointments, talk to a medical provider about an urgent or developing medical issue, refill and request medication renewals, and check on the status of medications with the help of pharmacy professionals.

As part of VA Health Connect, VA developed a Tele-Emergency Care capability known as Tele-EC, which will be available in VISN 23 by the final quarter of Fiscal Year 2024. Tele-EC is similar to a nurse advice line that many Veterans with private insurance may have experienced. VA's Tele-EC model utilizes Health Connect clinical contact centers to triage and connect Veterans or caregivers to a licensed emergency medicine practitioner. They address the Veterans' acute medical needs over video or phone or direct them to the appropriate resources based on their situation. Since last year, Tele-EC has triaged over 15,000 calls, with a median wait time to speak to a provider under 10 minutes. The data show that Veterans utilizing Tele-EC are less likely to need a Community Care appointment because nearly 70 percent of Veterans' concerns were resolved over the phone, ultimately reducing Community Care costs. Over the past year, nearly 85 percent of Veterans who have used Tele-EC say they were satisfied with their visit, and the same percentage of Veterans trust using Tele-EC in the future.

Orthotic, Prosthetic, and Pedorthic Clinical Services

VA has also increased its Orthotic, Prosthetic, and Pedorthic Clinical Services (OPPCS) staff in Iowa from three to eight clinicians to better serve the needs of Iowa Veterans. The facility expanded its services in 2023 to include in-facility custom orthotic and prosthetic care, attracting positive responses from Veterans. Des Moines' Knoxville CBOC now offers custom orthotic and prosthetic care to Veterans, while the Mobile Prosthetic and Orthotic Care program is being rolled out in Iowa City, offering VA-provided care in Dubuque, Waterloo, and Ottumwa CBOCs starting in May 2024. These expansions aim to improve accessibility and quality of care for Iowa's Veteran community by increasing the number of clinicians and establishing new facilities.

Beyond direct care, OPPCS is partnering with the University of Iowa's Human Performance and Clinical Outcomes Lab to improve understanding and treatment of musculoskeletal and neurological conditions. The collaboration aims to use advanced biomechanical analysis techniques and clinical expertise to explore innovative approaches to orthotic and prosthetic design, rehabilitation protocols, and patient-centered care strategies. The lab will utilize revolutionary motion capture and analysis capabilities to evaluate gait patterns, joint mechanics, and functional performance in individuals with limb loss or musculoskeletal impairments. This data-driven approach will guide the development of tailored orthotic and prosthetic interventions. The collaboration will also facilitate the integration of clinical expertise

from VA OPPCS, ensuring research findings are directly applicable to real-world patient scenarios and aligned with the latest clinical practices.

Rehabilitation Therapies

The Iowa City VAMC is actively collaborating with local universities and research institutions to stay at the forefront of rehabilitation research. It is making strides in incorporating complementary and integrative health approaches into rehabilitation therapies, including PT and occupational therapy (OT), benefiting approximately 61,000 Veterans. Central Iowa, in particular, is leading in embedding PT into primary care, which has resulted in noticeable reductions in wait times and opioid prescribing.

VA is also producing virtual reality content for PT/OT and implementing a telewheelchair clinic, utilizing clinical telehealth technology for wheelchair assessments. These data can help therapists personalize treatment plans and track progress more effectively. Other rehabilitative initiatives include piloting home health agency programs, hiring physical therapists and chiropractors into community-based offices, establishing a Geriatric Accredited Emergency Department, participating in the Enhancing Pelvic Health Across the Continuum, and expanding its Home-Based Primary Care Teams.

Local Partnerships

VA consistently prioritizes community engagements and effective partnerships to provide Veterans and their beneficiaries with well-rounded care and support. One of the most successful collaborations to date includes the National Disabled Veterans Golf Clinic (NDVGC), a week-long adaptive golf program presented by VA and Disabled American Veterans (DAV). This annual event promotes rehabilitation by instructing Veterans with specific life-changing disabilities in adaptive golf. VA and DAV began partnering with the University of Iowa's Department of Physical Therapy and Rehabilitation Science in 2019 and have continued to collaborate each year since. The NDVGC Director works directly with the Clinical Assistant Professor and Co-Director of Clinical Education to connect University of Iowa students with the program. These students are supervised throughout their involvement, supporting registration, fall risk assessments, seating stations, and alternative activities offered at NDVGC. In 2023, these activities included cycling, kayaking, rock wall climbing, disc golf, bowling, water aerobics, and cornhole. Through this collaboration, NDVGC not only provides the opportunity to earn college credit toward coursework completion but also offers participating university students an intimate introduction to the populations of Veterans they serve.

Other partnerships include affiliation agreements with local universities for audiology, speech pathology, PT/OT, chiropractic, and nurse practitioner programs. Additionally, there are collaborations with Des Moines University and UnityPoint Health Care System on stroke camps and stroke support groups. In 2023, the National Veterans Golden Age Games was hosted by the VA Central Iowa Health Care System, who partnered with many local sponsors and volunteers. Over 600 Veteran athletes aged 55 and older, from 107 VAMCs, competed in 19 medaled sports and 4 exhibition events, demonstrating their commitment to "Fitness for Life."

Cutting-Edge Research

The VAICHS has been a top VA system for over 50 years, funding research in infectious diseases, immunology, transplantation, dermatology, and pulmonary, cardiovascular, and diabetic diseases. Presently, VA has 102 active researchers in Iowa, working on 254 projects funded by approximately $34 million through VA's Office of Research and Development. Through the system, VA has advanced patient-focused clinical trials for cancer, kidney, and liver diseases, and developed projects to better understand and manage patients with traumatic brain injuries (TBI) and post-traumatic stress disorder (PTSD).

Specifically, Iowa City investigators have identified vulnerabilities for Veterans with chronic pain and PTSD, partnering with the National Center for PTSD and the Pain Management, Opioid Safety, and Prescription Drug Monitoring Programs to educate providers. Jointly, they have evaluated a short message service (or SMS) messaging intervention system, named Annie, to improve antidepressant adherence and depression outcomes in Veterans. They are also exploring innovative approaches to address the complex challenges faced by Veterans with chronic pain and PTSD, such as virtual reality exposure therapy and advanced neuroimaging techniques.

Artificial Intelligence in Ophthalmology

Since 1998, the VA Ophthalmology service in Iowa City has witnessed a significant increase in patient visits and surgeries, with over 8,000 visits per year. This

growth has provided opportunities for the service staff, residents, and faculty to deliver top-notch ophthalmologic care. The Eye Clinic boasts a dedicated team of experienced nurses, an optometrist, an ophthalmic technician, and a clerk, all committed to serving Veterans and the Veteran community. VA prioritizes education, supporting three University of Iowa residents and stationing three residents directly at the VAMC.

Complementing Iowa City's direct care efforts, the Iowa City Center for the Prevention and Treatment of Visual Loss is a cutting-edge research facility dedicated to advancing ophthalmology and finding innovative solutions for various eye conditions. Significantly funded by VA's Rehabilitation Research and Development Division, the Center receives an annual core funding of $1.2 million, leveraged into additional Federal grants totaling around $7 million per year. This funding supports faculty members, pilot grants, equipment, and research personnel, fostering innovation and advances in ophthalmologic care, ultimately benefiting Veterans and the broader medical community.

Currently, the Center has two active awards involving deep learning and artificial intelligence (AI) in ophthalmology. The first focuses on improving glaucoma diagnosis, progression monitoring, and treatment outcomes using structural imaging and visual field testing. The second aims at developing automated assessment of ocular misalignments and enhancing diagnosis through AI and eye-tracking devices. With a strong focus on early detection and treatment of blinding disorders like retinal disease, glaucoma, and TBI, the Center employs a multidisciplinary approach. It explores areas such as telemedicine, computer-aided diagnosis, neuroprotection, and neurotrophic growth factors. One project aims to develop automated image analysis approaches to determine the severity and cause of optic nerve edema using machine learning on clinically acquired imaging data. The approach will predict measures of severity and causation from novel image-analysis-based parameters, utilizing optical coherence tomography volumes and fundus photographs across multiple visits.

Conclusion

Madam Chair, Ranking Member, thank you again for the invitation to join you for this important discussion. VA remains dedicated to providing exceptional health care services to the Nation's heroes in Iowa and beyond. As we navigate the evolving health care landscape, VA is committed to upholding its mission of serving those who have served by continuously striving for excellence, innovation, and accessibility in the services we provide.

Prepared Statement of Mahsaw Mansoor

Written Testimony of Mahsaw Mansoor
Resident Physician
University of Iowa Health Care
Iowa City Veterans' Affairs Medical Center

At a Hearing Entitled,
"Iowa: A Leader in Veteran Healthcare Innovation"

Before the House Committee on Veterans' Affairs
Subcommittee on Health
United States House of Representatives

May 13th, 2024

Chairwoman Miller-Meeks, Ranking Member Brownley, and distinguished members of the subcommittee: On behalf of the University of Iowa Healthcare, thank you for the opportunity to appear before you to discuss the status quo and, importantly, innovations in veteran healthcare in the state of Iowa.

I am Mahsaw Mansoor, a resident physician completing my training at the University of Iowa. I have proudly been training in the Veterans' Affairs (VA) Healthcare System for the past eight years, first as a medical student at the Southern Arizona VA Health Care System and now, as a physician, at the Iowa City VAMC. I am grateful for the opportunity to speak about our experiences in vision research and developing cutting edge artificial intelligence (AI) technology and studying AI safety, and the impact of this in creating widespread availability of healthcare resources. We have great interest in working collaboratively with governments to ensure the delivery and availability of safe and beneficial AI tools.

Before we discuss the exciting progress in Iowa, I would like to share why this topic is deeply personal to me. As a second generation Iranian American, I cherish the values of the American Heartland. We are a community rooted in unspoken truths of integrity, self-sufficiency, and hard work. This, of course, lends naturally to the American Dream and immigrant values that were instilled in me by my parents. Much of our beautiful state is composed of rural farms and small-town communities, and it is the heart of America that lives in these small towns. But, this means, more often than not, our patients travel far to access care. Appointments are often scheduled with a recognition for when the harvest will begin because the livelihood of our patients depends on it. The social determinants of access to care quickly become apparent: transportation, loss of a day's wages, inability to tend to the farm, and unpredictable weather are among many. This translates to missed appointments, delayed care, and economic impacts that are immeasurable.

This is why I stand here before you to share the impact of autonomous AI in deconstructing these barriers. No veteran, Iowan, or American should ever fall into the ranks of an invisible population that has limited access to care. Our story starts here, and I commend our Iowa City VAMC for leading the development of AI technologies that improve access to care in an ethical way.

Background

Approximately 38 million Americans have diabetes mellitus (DM) and over 97 million people are estimated to have prediabetes in the United States.[1] DM prevalence continues to increase not just in the aging population, but even among children and adolescents.[2] Complications from DM are the leading cause of blindness in working age adults in our country.[3,4] Further, the presence of

diabetic retinopathy (DR) is significantly associated with all-cause mortality in elderly individuals in the United States.[5]

In Iowa, about 10% of the adult population has been diagnosed with DM.[6] It is estimated that the economic burden of this in Iowa alone is greater than $2.5 billion each year.[6] Despite the obvious economic and health burdens, many are surprised to learn that DR can be prevented with screening and early detection. In most healthcare settings, this involves at a minimum an annual visit to an ophthalmologist. Yet, the aforementioned social determinants of care are a barrier to adequate screening both nationally and globally. Improving screening and prevention will save vision and improve lives.

This is where Iowa has led the way in developing autonomous AI that allows for enhanced and increased screening in a safe and ethical manner that improves access to care, even to the smallest rural communities of our state.

About Supported Vision Research at the Iowa City VAMC

Currently, there are multiple AI research projects at the Iowa City VA Center for the Prevention and Treatment of Blindness (CPTVL). We are extremely grateful to have support and funding from the VA Rehabilitation Research and Development Division. This team is led by Dr. Randy Kardon, who is an internationally recognized expert in neuro-ophthalmology and an extremely accomplished vision researcher. Grant funding was recently renewed for our fourth 5-year cycle starting in July of this year. This includes core funding from the Rehabilitation and Development Division of $1.2 million per year. There is additional funding directly from the National Institutes

of Health and Department of Defense that increases our research funding to about $7 million per year currently. We are grateful for this support as it has been able to catalyze AI research at the Iowa City VA.

The research team led by Dr. Kardon focuses on the application of AI and deep learning to quantify and visualize the spatial patterns of nerve loss in the retina in highly impactful blinding diseases affecting Veterans and citizens with glaucoma, age-related macular degeneration, DM, multiple sclerosis, ischemic optic neuropathy, radiation retinopathy, and eye movement disorders.

About Digital Diagnostics – An Iowa Founded AI Company

Digital Diagnostics is a healthcare technology company founded by Dr. Michael Abramoff in Coralville, Iowa. As a healthcare technology company, Digital Diagnostics designs and implements AI systems that can diagnose disease by analyzing high-quality images. Digital Diagnostics' mission is to benefit patients by developing technology to make healthcare easier to access, affordable, available to everyone, and of the highest quality. Built on a foundation of bioethical principles, Digital Diagnostics is creating impactful AI diagnostic systems that improve patient outcomes and address existing barriers to care. Using AI, we can create solutions that help increase access, reduce costs, and improve the quality of care for those that need it most.

About Digital Diagnostics Technology

Digital Diagnostics' flagship product, LumineticsCore™, is an AI system designed to diagnose diabetes related eye disease without needing a physician to look at the images. LumineticsCore can help increase patient access to care by bringing diagnostic results to where the patient already

is, referring only those patients that need follow-up care and eliminating the need for an additional appointment for most people. This enables providers to close the eye exam for diabetes care gap by offering a specialty level diagnostic exam at the point-of-care in primary care, and like settings. Specialty care providers can also benefit from point-of-care diagnosis with increased referrals from primary care, less time spent on routine exams, and more time to practice top of license and treat the people that need them most.

Digital Diagnostics has helped pave the path for the use of AI diagnosis in healthcare. The Iowa led team was pivotal in establishing many industry and governmental firsts including Food and Drug Administration (FDA) approval of an autonomous diagnostic system, creation of the first ever autonomous AI current procedural terminology (CPT) code for billing and payment, and inclusion of autonomous AI in the American Academy of Ophthalmology's diabetic retinopathy preferred practice pattern (PPP). Digital Diagnostics continues to work diligently with healthcare industry stakeholders, from regulators, to providers, to patient advocacy groups to establish AI diagnosis as the new standard of care. Digital Diagnostics is a healthcare AI leader that has shown that intelligent diagnostic platforms can be deployed safely and responsibly to improve patient outcomes and increase healthcare productivity.

AI Safety Practices

AI systems in healthcare like LumineticsCore will make clinical decisions without human oversight. While such rigorously validated diagnostic systems hold great promise for improving access to care, the benefits require evaluation from a bioethics and accountability perspective. This foundational mission has been a key aspect of our mission in Iowa. From a diagnostic perspective,

multiple studies and validated protocols have demonstrated the reproducibility and repeatability metrics of autonomous AI.[7-12] Digital Diagnostics is committed to the rigorous ethical considerations necessary for successful deployment of AI technologies; further, Dr. Abramoff has been a leader in navigating this bioethical landscape and creating a conceptual map for the healthcare community to consider when navigating autonomous AI systems.

AI Improves the Delivery of Healthcare

Encouragingly, emerging evidence from randomized controlled trials (RCTs) highlights the impact of autonomous AI for diabetic eye exams in primary care patients to improve health equity[13], physician productivity[14], and adherence to appropriate care[15,16] at scale. Autonomous AI has been validated at the point-of-care to increase healthcare productivity[15,17,18], improve access to the diabetic eye exam,[15,19,20] reduce access disparities[16,20-22], and improve clinician productivity and satisfaction.[14] We have shown at Iowa that autonomous AI is a scalable solution to a problem long considered intractable.

In our state and others, AI will bridge the gap. It will increase our reach and allow greater access to rural communities. LumineticsCore effectively allows specialty service care to be performed by a minimally trained camera operator to detect DR at the point-of-care such as in a primary care clinic, retail care setting, or commercial laboratory. This allows for only those who have a positive DR diagnosis to then be referred to a specialist to establish a care management plan to treat their DR, allowing for specialists to practice top of license and limiting appointments with people who may not otherwise have disease. The burden is reduced at the specialist's office due to the implementation and adoption of LumineticsCore as a scalable autonomous AI technology.

Conclusion

Complications of DM and resulting vision loss should not be determined by lack of equitable access to early diagnosis and treatment. At the University of Iowa and the Iowa City VA we have a team dedicated to bridging the gap to deliver care to those that need it most. Our group has paved the way for autonomous AI in an ethical way with the development of LumineticsCore and Digital Diagnostics. Through continued vision research, we are committed to improving access to Iowans across the state.

Our group would like to thank Chairwoman Miller-Meeks, Ranking Member Brownley, and all members of the subcommittee for allowing an opportunity to testify before you today. We have no greater priority than ensuring our veterans have access to the highest quality care, and we are privileged to continue in a path of innovation that benefits all Iowans.

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Prepared Statement of Brandon Blankenship

Good morning, ladies and gentlemen,

Although I am the chief information security officer for ProCircular, a cybersecurity services firm based out of Iowa, I believe my value to this subcommittee can be best vocalized as a recipient of VA care. I am an Iraq war veteran, that led a squad of Marines in the Triangle of Death in 2004. Upon my return, in 2005 I experienced some of the scheduling and administrative challenges navigating the VA.

In recent years I have seen firsthand the incredible benefits of using AI/ML within cybersecurity, not only to enhance accuracy and speed in detection models to identify threatening malware behaviors, but to automate research tasks.

As others will likely articulate, The VA has mountains of data at its disposal. This data can be used by doctors, nurses, and administrative staff to better serve veterans; however, the issue is that much of this data is either unstructured or difficult to query. Effectively this data is unavailable to the staff and doctors to use in any meaningful way or in any timely manner, simply because they are drowning in data. AI or machine learning algorithms are fantastic at pattern recognition and will continue to improve as the results of those patterns are used to train the model further.

Imagine how beneficial it would be for a doctor to have the top five recommended issues ready for review before seeing a patient, and those potential diagnosis and remediations would be based on decades of hard data and thousands of discrete data fields, rather than fallible human bias and individual best effort. The AI/ML could be seen as a genius intern that excels at processing large amounts of data and quickly and accurately making correlations, based on historical facts and individual patient history. These recommendations could be given to the doctor as a force multiplier, without cutting out expert human judgment. It would allow the doctors to make use of currently unusable data to make real-time fact-based decisions, and ultimately better serve veterans.

My personal experience with the VA centered on administrative problems. After returning from a war zone, I went to the VA to get my hearing checked within weeks. The visit took most of the day, and the only thing that was accomplished was to get into the system and have an opportunity to be scheduled for a hearing test. I wasn't allowed to negotiate the date for scheduling like a normal doctor's office. I later received a letter in the mail informing me that my hearing test appointment was the following day, which I was unable to attend because of a conflict. That was 19 years ago, and I've never been back. I fully acknowledge that I chose not to use the VA, because of my frustration with the scheduling process, however, multiply my experience times millions of veterans to understand the scope. If the scheduling process is frustrating and counterintuitive, effectively veterans are being denied care.

Because it's been two decades since I have experienced firefights and suicide car bombs with no hearing protection, it is unlikely I will be able to prove that my hearing loss is the result of military service. The issue isn't my personal journey, but rather acknowledging that AI, chatbots or scheduling personal assistants can be used to streamline and achieve efficiency gains for the Department of Veterans affairs. If we can do better cut down on cycle time and defects in scheduling and navigating a complicated system, fewer veterans will self-select out of the care they need and deserve.

AI can be used for predictive analytics for resource allocation. By analyzing historical data, AI can predict demand for healthcare services, enabling the VA to allocate resources effectively and ensure timely access to care for veterans. It can also be used for faster diagnosis and treatment, and research and development; however, I believe that by simply improving the administrative process, we can provide an enhanced veteran experience.

STATEMENT FOR THE RECORD

Prepared Statement of American Optometric Association

AMERICAN OPTOMETRIC ASSOCIATION

Steven Reed, O.D.
President, American Optometric Association

May 13, 2024

The Honorable Marriannette Miller Meeks
U.S. House Committee on Veterans' Affairs
Chair, Subcommittee on Health
364 Cannon House Office Building
Washington, D.C. 20515

The Honorable Julia Brownley
U.S. House Committee on Veterans' Affairs
Ranking Member, Subcommittee on Health
364 Cannon House Office Building
Washington, D.C. 20515

Re: U.S. House Committee on Veterans' Affairs Subcommittee on Health 5/13/24 Field Hearing: Iowa: A Leader in Veteran Healthcare Innovation

Dear Chair Miller Meeks and Ranking Member Brownley,

The American Optometric Association (AOA) represents more than 49,000 doctors of optometry, optometric professionals, and optometry students, including many of the more than 1,100 Department of Veterans Affairs (VA) doctors of optometry now on the frontlines providing nearly three-quarters of all primary and medical eye care services to millions of Veterans in communities across the country. AOA appreciates this opportunity to provide insights into the evolving role of Artificial Intelligence (AI) in the delivery of VA eye care as we continue striving to ensure that our nation's Veterans have access to the world-class vision and eye health care they need and deserve, when and where they need it.

Today, VA doctors of optometry care for more than 70 percent of the total unique Veteran visits involving eye care services annually, including 73 percent of the 2.5 million selected ophthalmic procedures and nearly 99 percent of services in low vision clinics and blind rehabilitation centers. VA optometrists are currently practicing at 95 percent of the VA sites where eye care is offered and are often the only licensed independent eye care practitioner available to Veteran patients. Right now, vision and eye health care is the third-most requested service by Veteran patients, behind only primary care and mental health care services. With VA optometrists providing the vast majority of eye care services to Veterans, AOA believes that doctors of optometry have an important voice and role to play in the ongoing discussion regarding the future of AI in the delivery of VA eye care.

To be sure, ensuring safety of the use of AI in health care is critical. The AOA believes that AI should be evaluated based on whether it can improve patient outcomes and has high sensitivity and specificity.

Systems using AI to identify patient risk of disease must be held accountable to ensure that referral loops are closed. It is clear that the value of AI cannot be based solely on the accurate identification of disease risk. The value of AI must be assessed based on whether patients identified with potential disease risk receive necessary care and follow up.

As AI in health care expands, AOA believes that important criteria must be met:

- AI should be evaluated based on whether it can improve patient outcomes and has high sensitivity and specificity.
- Systems using AI to identify patient risk of disease must be held accountable to ensure that referral loops are closed.
- The value of AI cannot be based solely on the accurate identification of disease risk. Rather, the value of AI must be assessed based on whether patients identified with potential disease risk receive necessary care and follow up.
- Efforts must be made to identify and address bias in AI systems.
- Ongoing education is critical for patients and doctors to understand both the limitations and potential uses of AI in health care.[1]

AOA has continued to recommend that an advisory group be created to develop regulatory guidance on the use of AI in eye care and health care more broadly, including care delivered at VA. We would welcome the opportunity to provide recommendations for doctors of optometry to be included on this expert panel.

Thank you, again, for the opportunity to provide insights into the evolving role of AI in the delivery of eye care within the VA. With VA optometrists providing the vast majority ofC eye care services to Veterans in communities across the country, AOA believes that doctors of optometry have an important voice and role to play in the ongoing discussion regarding the future of AI in the delivery of VA eye care. If you have questions or would like further information, please do not hesitate to contact me or AOA staffer, Matt Willette (mwillette@aoa.org).

Sincerely,

Steven Reed, OD

President, American Optometric Association

[1] https://www.aoa.org/AOA/Documents/Advocacy/position%20statements/AOA_Policy_Telehealth.pdf