Cyberseminar Transcript

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Session: PROVEN Coordinating Hub to Accelerate Electronic Health Record Modernization Research

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Heidi: And it looks like we are just at the top of the hour here, so we're going to go ahead and get things started. Once again, thank you everyone for joining us for today's HSR&D Cyberseminar. Today's session is the PROVEN Coordinating Hub to Accelerate Electronic Health Record Modernization Research. Our presenters for today, our first presenter is Dr. Steven Simon. He is the chief of staff with the VA Greater Los Angeles Healthcare System and an investigator with the Center for Healthcare Innovation and Policy. He's also an associate dean for Veterans Affairs with the David Geffen UCLA School of Medicine.

Our second presenter today is Dr. Michael Weiner. He's the director of the VA HSR&D Center of Excellence on Implementing Evidence-Based Practice at the Indianapolis VA Medical Center, and the director of the Indiana University Center for Health Services and Outcomes Research, and the director of the Regenstrief Institute Health Services Research Program.

Our third presenter is Jessica Davila. She's a research scientist and program chief of the methodology and analytics core with the Houston Center of Innovations, Quality, Effectiveness, and Safety, at the Houston VA Medical Center, and an associate professor of medicine with the Baylor College of Medicine.

They are joined by Dr. Becky Yano who is a director at the VA Women's Health Research Network, or Consortium; director of the VA HSR&D Center for the Study of Healthcare Innovation, Implementation, and Policy; and a professor of Public Health and Medicine at UCLA. I want to thank all of our presenters today, and I would like to turn things over to Dr. Simon.

Dr. Steven Simon: Good morning and good afternoon. Thank you all very much. I’m going to make sure I have access to the slides and to have access. Great. So, thank you all for joining us, and it's really a privilege and honor to be here and to be able to be working in this area with so many of you. The PROVEN Coordinating Hub, the acronym of it is up in the top left corner of your slide. It's the Coordinating Hub to Promote Research, Optimizing Veteran-Centric EHR Networks. And thanks to Heidi for all the organization and the introduction of my co‑investigators, my co‑principal investigators. We can move on to the next slide.

So here are our objectives for this Cyberseminar session. First, to explain what is PROVEN, and maybe the follow-up is why we need another acronym. How does it fit into the research and EHRM ecosystem? What are the initial pilot projects that are studying electronic health record modernization? And then what I hope is most important is what can PROVEN do for you?

So I lead the administrative core along with the other multiple principal investigators. The aims and functions of PROVEN are shown here. First, we aim to support, promote, and enhance health services research related to electronic health record modernization. We will be conducting five initial rapid pilot projects, studying aspects of EHR implementation. Our goal is to train and advise, providing methodological training, methodological and informatics expertise, and support to investigators throughout VA in the area of electronic health record modernization. We intend to function as a connector and a coordinator to serve as a liaison between electronic health record modernization researchers and VA operational partners and the implementation sites where the Cerner electronic health record will be implemented or is being implemented. Our additional goal is to be a disseminator, to communicate electronic health record modernization research findings via multidirectional, to OEHRM, the Office of Electronic Health Record Modernization, as well as to other VA decision-makers, as well as throughout the informatics research community through mechanisms like this one, the Cyberseminars. And then lastly is to prioritize, to serve as a point of curation and prioritization of the EHR modernization research agenda.

Here is our organizational chart and how we approach these PROVEN aims and functions. Start in the middle where you can see the PROVEN Coordinating Hub. That's us. We have four cores. I lead the administrative core. You'll hear from the leaders of the health informatics, data and methods, and implementation and training core subsequently, in about a few minutes after I finish. I will also describe, at the bottom of the screen, you can see the five rapid pilot projects. I'll go into just a little bit of high-level detail on each of those in just a moment.

If you circle back up to the northwest corner of the slide, you can see some of the VHA program offices with which we have been affiliated and already engaged. There will be more, no doubt, but these are the ones we made initial communications and had support of already. Just below that, at 9 o'clock, you can see that we have an external panel of experts. We thought that would be extremely important so that we have visibility to not only what is VA doing in terms of electronic health record modernization and Cerner, but what can our experts outside of VA tell us about similar implementations outside VA and having an external view from the experts who have conducted comparable or similar activities outside.

Up at 12 o'clock, you can see the Office of Electronic Health Record Modernization, OEHRM. They're in bold, and they're probably one of our primary, most important partners. They're essentially running the whole show for electronic health record modernization, and we have been building and are very fortunate to have strong contact relations with them.

If you skip over to the far northeast corner of the slide, the Office of Research and Development includes OSIRES, which is the innovation element, an innovation dimension of OR&D. It stands for the ORD Strategic Initiative for Research and EHR Synergy, which is a mouthful, as well as VA HSR&D as our important partner and our funder. Just below that at 3 o'clock, you can see the OEHRM and QUERI Partnered Evaluation Initiative, which we will speak to a little bit later as well, which helps to inform our work, and we help to support them as well.

So, back up at about 1 o'clock on the clockface, you can see OEHRM Research Work Group, and I'll speak to that in a minute, because a lot of the work that they do may seem like it is overlapping ours, and I want to try to distinguish how our work is totally different from theirs and is supportive bidirectionally. So this slide shows you what we try to do, and I outlined on the left side just a moment ago the kinds of things the PROVEN Hub does. And to distill it, we help research make scientific contributions to electronic health record modernization, focusing on the researchers, supporting researchers; training, advising, developing researchers; building connections and coordination among researchers, among themselves to our operational partners in the field; and then disseminating research findings, number four on the left. Disseminating those findings, as I said, multidirectional.

In contrast or in comparison on the right, the OEHRM Research Work Group is focusing on helping research, all of you, all of us, to continue to do the work of research using the electronic health records and their data. And by records, I mean the existing EHR, as well as the new EHR, the Cerner EHR, and going through that transition. The OEHRM Research Work Group is focusing on impact and mitigation on all the sites that are implementing new EHR. OEHRM Research Group is focusing on integration. That is, ensuring integration of research and EHR such as clinical trial activities. Sustainability, fostering sustainability of research data, understanding incoming data and advising about new data alongside Legacy or CPRS-based Legacy data. And then lastly is access. So there's some overlap here, advocating for access to EHR data for research use, whereas we're really focusing on access and, as I said on the left side, connecting and coordinating with the implementation sites.

Let me now spend just roughly about five minutes, maybe a minute apiece, on the five initial rapid pilot projects for the PROVEN Coordinating Hub. So the first study I want to describe is led by Kristina Cordasco here at Greater Los Angeles and the impact of Cerner Millennium on communication across specialty care referrals. This is a mixed methods study, and the first aim is to assess Millennium, or the name of the Cerner product, Millennium's referral request process for adherence with best practices related to specialty care referrals. The second aim is to focus on delays or failures related to the transition/implementation process of EHR. So we're obviously concerned about quality and safety and tracking referrals and want to make sure we understand if there are failures in that process. Then, aim three for Dr. Cordasco's study is to glean insights and perceptions of the specialty care referral process from both primary care and specialty care providers.

The second rapid pilot project I'll introduce is one led by Sarah Krein at Ann Arbor, and the study is called Understanding the Impact of EHR Transition on VA Inpatient Nursing. The objective of this study is to explore how the EHR transition will affect the delivery of VA inpatient nursing care at one site, providing pilot data for a larger study, a multisite study, and helping us to identify practical insights related to mitigation of potential safety hazards and promoting safe, high-quality care for Veterans who are hospitalized. This is a primarily qualitative study, and I'll focus on aim two for a moment. The second aim of the study is to explore development of EHR-related workarounds or process adaptations by inpatient nurses. We want to understand these processes and these modifications that happen with the new EHR, with existing and new EHR, so that we can help to improve the system overall in the future. And then aim three is to adapt and test the feasibility of the previously developed time and motion workflow assessment tool.

Our third of five initial rapid pilot projects is led by David Mohr at Boston in CHOIR, and the title of the study is Impact of EHR Modernization on Patient-Centered Care and Health Portals, so patient portals. And the research questions are, how does this transition to the new EHR influence patient care and the experience with patient portals? Is it better? Is it worse? How has it changed? And then secondly and thirdly, do patient characteristics and provider characteristics influence how these changes occur, influence how they're perceived, and how patients interact with the system and how providers interact with the patient portal system. The methods of the study will examine routinely collected outpatient survey data and look at them over time and see how they change with the implementation of the new EHR and the new patient portal-related systems, and then conducting data analyses of targeted survey questions both pre and post implementation to assess these experiences.

The fourth of the five studies is a Formative Evaluation of EHR Modernization Councils. It's led by two co-principal investigators, Julian Brunner and Jeremy Shelton, here at Greater Los Angeles. And I suspect that there are many people, at least a number of you who are in the audience today, who have been a part of that EHR modernization council related to configuring Cerner. There have been 18 councils and over 100 workgroups, a whole lot more individuals throughout VA who have dedicated considerable time and effort to planning for the modernization of electronic health record and implementation of Cerner at the level of services and specialties. The objective of this work is to characterize this process, understand the structure of the council process itself, and to identify lessons learned, with an eye to improving council effectiveness, efficiency, and sustainability. There will be some mixed methods, analyzing documents, meeting agendas, materials, and records from the OEHRM council process, and then the conduct of a number of semi-structured interviews with participants of the councils.

The first aim is to characterize the structure and processes and describe that and to memorialize it, and the second aim is to identify lessons and helpful practices from the initial activities of the councils, identify opportunities to sustain and improve the councils' effectiveness and efficiency going forward.

The fifth and final of the initial rack of pilot studies is the study led by Kristine Lynch and Kristen Gray in Salt Lake City and Puget Sound. The title of the study is Barriers to External Mammogram Care Coordination and Exploration of Clinical Informatics Solutions. The objective of this work is to study care coordination to lay the groundwork for future informatics solutions to care coordination initially within CPRS and with an eye toward developing features in the Cerner EHR. The research problem is that the VA supports considerable homegrown tools for ensuring follow-up of mammograms and rescreening as necessary in the community. The VA, as many of you know, relies on community providers for mammograms, which thereby complicates coordination. And mammograms is one example of where we use heavy community partners, and this will hopefully give us insight into a whole number of additional processes that we need to better coordinate. We know that gaps in this coordination can affect the quality and safety of care, affect patient outcomes, and potentially increase healthcare expenditures.

So the aim of this work initially is to identify the variables that are being tracked for external mammogram coordination and then describe barriers and facilitators to coordination across VA facilities. The second aim is to quantify the availability and describe the structure format and location of these key external care variables within the existing EHR, and then describe the barriers and facilitators to external care coordination among staff at non-VA systems that already use the Cerner EHR.

So with that introduction, those are the initial five pilot projects, and I am going to do my best to pass the baton to Dr. Weiner to speak about the health informatics core. And if I can't do it, I hope Heidi can pass the ball for me.

Dr. Michael Weiner: Hi. Thank you, Steven. This is Mike Weiner. I’m representing the health informatics core. I’m based in Indianapolis. First thing I’d like to do is provide you with some examples of potential research topics connected to EHR modernization, and many of these topics are shown here. These are areas where you could apply these issues to research about electronic health record or the transition of the record. Topics are shown on the left. Some potential outcomes of interest are shown on the right. And obviously, these are very related and not necessarily confined to those specific categories. These areas, nonetheless, may be of interest to you in helping to develop research projects and plans, and it's not an exhaustive list. There are probably many other topics that one could think of.

Next, I want to introduce you to our health informatics core, and the folks here are shown, both scientists and staff. They have expertise in areas such as clinical decision support, health information exchange, coordination of care, personal health records, public health informatics, bio-surveillance, medical record administration, and human factors.

I’m going to show you next a little bit about how the core works and works with the hub as well. You can see three components here. The first one in the middle is customer service, and actually, all of the cores in our PROVEN Hub are working together and will be serving a customer service function that will provide feedback and facilitation in discussion with VA stakeholders about needs relating to informatics research.

In the right top, you see number two, which is a research nest. That's what we’ve called it. And that's a group that's going to help organize information, evidence, and knowledge about informatics research, such as findings from evaluation studies, scientific studies, and also implementations. And third, in the lower right, is human factors activity, and that's where our human factors group will assist with aspects of human factors or human-computer interaction in conjunction with our stakeholders who may need advice or even additional services such as evaluation in any of these areas.

I'll show you a list of areas of knowledge and expertise, and these are shown here, which include study designs relating to informatics, measurements of outcomes, identification of informatics-relevant variables and factors, the evidence base about EHR modernization, and then some of the human factor issues that I mentioned, which also include user interface, usability, workflow, cognitive task analysis, learnability, and usefulness.

We're soon going to issue some open invitations to enable you and others to join the PROVEN network as stakeholders. I wanted to mention that because you may be wondering about it. And if you don't get the information over the next few weeks, feel free to contact us, and we'll get you involved.

I’m going to turn it over to Jessica Davila to talk about data and methods core.

Dr. Jessica Davila: Hello. This is Jessica Davila, and I’m based at the Houston COIN, and I am the leader of the data and methods core. So one of the primary activities of the data and methods core is to provide both qualitative and quantitative technical consultations for VA field investigators conducting EHRM-related research, so telephone consultations with methodologic experts across the VA will be available at no charge to VA investigators.

We have investigators with several areas of expertise in the data and methods core, including study design, big data, health economics, survey design, and qualitative methods. If expertise is needed that is beyond what is available in the data and methods core, we can connect you to other investigators and resources across the VA. To schedule a consultation with us, please e‑mail our PROVEN@VA.org e-mail with the details of your project, and we'll be glad to assist.

Another responsibility of our data and methods core is to facilitate collaborations among VA investigators submitting EHR and related grant proposals. Our goal is to connect researchers to other investigators doing research on similar projects, as well as to reduce any redundancy in research activity. We will also be available to point investigators toward relevant EHRM research and data information that can be used for writing grant applications.

We will serve as a general data and methods resource for EHRM-related information for HSR&D researchers. On our website, we will soon have links to some of the commonly requested information on VIReC, VINCI, and other relevant websites. The PROVEN Data and Methods Core in collaboration with the informatics core will also maintain a searchable project registry of EHRM-related projects with specific information regarding methods, data sources, and key variables used for EHRM research. We will also develop a library of information regarding EHRM research methodology that will include currently available literature and reports, as well as what we learn through our PROVEN program efforts.

Another activity that will be supported by the PROVEN Data and Methods Core are consults and referrals to our partners, including both resource centers and operations partners. PROVEN is working closely in partnership with VIReC and VINCI to ensure that researchers' needs are met regarding EHRM research and methods. We will coordinate consults and referrals to VIReC for EHRM data issues. For example, we recently worked closely with VIReC to help one of our PROVEN pilot projects gain access to the data they needed to conduct their project. [Inaudible 22:28 to 22:30] researcher guidance around EHRM data issues and will continue to disseminate jointly developed plans and resources over the next several months.

There have been some questions about how PROVEN is distinct from our partners, so I wanted to mention a few things that are not part of the PROVEN Data and Methods Core. So these include data provisioning. This is a VINCI responsibility. Providing data to researchers, so data requests will continue to go through the DART system, and investigators will need to e-mail DART directly with questions. And data mapping is the responsibility of the OEHRM in collaboration with the research workgroup. So, PROVEN is able to provide some information to researchers, but we are not leading any of these efforts.

EHRM research methods and training and education will be a function of the data and methods core. We will offer one-to-one sessions on EHRM research topics as requested by investigators and their project team. For example, if a project team would like to learn how to conduct a cost analysis using EHRM data that is specific to their project, the data and methods core can provide assistance. Small group sessions are also available for COINs or other groups of researchers. We are part of the Research and EHR Synergy series in partnership with VIReC and OSIRES. So our goal is to offer trainings on topics that are of greatest interest to VA researchers. If there are topics that would be of interest to you or your COIN, please send us any requests to PROVEN@VA.org.

The PROVEN Data and Methods Core will also be responsible for Veteran engagement. We recognize the impact of Cerner transition on care provided to Veterans. We want to include the Veterans' voice in the PROVEN research agenda. Dr. Gemmae Fix, an anthropologist at the Boston VA, and I have worked together on developing a plan to establish a PROVEN Veterans' engagement group. The goals of this group are to understand the priorities of Veterans related to the Cerner transition, provide input on EHRM-related grants involving Veterans, and include the Veterans' voice in priority setting. There will be a process for requesting review by the PROVEN Veterans' engagement group. Details to come about this process.

If you are interested in getting involved with the PROVEN Data and Methods Core, one way to do so is to apply to participate in the data and methods workgroup. So on the right is a list of current workgroup members, many of which are VA researchers or scientists. If you would like to apply, please submit an e-mail of interest and CV to our PROVEN Data and Methods coordinator, Michael Strayhorn, at the e-mail listed on your left.

If you have any questions about the data and methods core, please post them in the Q&A. So I will now pass the torch over to Dr. Becky Yano who will talk about the implementation and training core.

Dr. Becky Yano: Thank you so much, Jessica. You can move the ball, as they say. Drag it.

Dr. Jessica Davila: I did. Hopefully, you have the ball.

Dr. Becky Yano: All right. Let's see if this works. There we go. Thank you so much. So I have to say, many of you probably know me already, but it's been a particular pleasure to work with multiple PIs on the PROVEN Coordinating Hub and to lead the implementation and training core.

I think what we have not made perhaps as clear, but is super clear from the implementation side of this, is VA's EHRM, Cerner Millennium, is indeed the largest EHR implementation that's ever been pursued globally, so the research opportunities in this space are truly unprecedented. It's also, though no one would have chosen this, the only EHRM implementation done during a pandemic, so a whole new set of challenges with opportunities for lessons learned from our research. So, opportunities for studying and enhancing implementation are also extraordinary, all of which, though, require a better understanding of Cerner and OEHRM change management implementation plans that we add value in terms of a design of research capable of contributing meaningfully to these efforts.

So the implementation and training core is also directly supporting the OEHRM/QUERI Partnered Evaluation Initiative. This is co-led by Seppo Rinne and George Sayre as multiple PIs, and they’ve been in a planning phase for the last year or two in partnership with OEHRM, also assessing feasibility of some of their methods and some of the work doing early site engagement and qualitative interviews. They’ve also worked with OEHRM to obtain some of the surveys that have been done in the lead-up to Cerner implementation and go live and are, again, working closely with them.

The next phase, we hope, will be a formative evaluation of initial implementation efforts in the first-wave VA sites. This was a QUERI Full Partnered Evaluation Initiative that was reviewed this past week, so we'll know more soon for this team, but the plan is to use the results of a multilevel stakeholder panel process using the results from the formative evaluation to make recommendations around how to optimize EHRM integration and implementation in future sites, and then to pilot test a tailored multicomponent strategy, again in partnership with OEHRM to improve outcomes in the subsequent sites. So, hopefully, more on that soon, and we have invited this team to provide Cyberseminars as they proceed as well.

Now, to build an implementation group in this, we basically are starting off with technical consults around implementation strategies, implementation evaluation methods, and economic evaluation of implementation, which is in partnership with HERC, the Health Economics Resource Center. But we’ve also spoken and worked through with CEIR, the Center for Evaluation and Implementation Resources that's funded by QUERI, to partner with the first four implementation training hubs. Implementation facilitation, which is led by Dr. JoAnn Kirchner; evidence-based quality improvement led by Dr. Alison Hamilton; leadership training and change management led by Kyler Godwin at Houston; and the learn, engage, act, process, or LEAP hub, that's led by Laura Damschroder. And we have monthly calls to advance not only what we're learning about change management strategies that OEHRM is pursuing, but also ways in which these implementation strategies that have been tried and true for other initiatives might be able to be deployed and used in supportive ways.

We're also coordinating linkages to the partners and sites in partnership with the other PROVEN cores you’ve just heard about. This includes keeping up with the changes in OEHRM and Cerner plans, as well as coordinating and brokering site research engagement in the face of local demands and challenges before, during, and after go live. We anticipate this being a very important process moving forward so that researchers don't try and just descend on, say, Spokane without coordination and support, or descend on some of the now VISN 10 sites without ensuring that any kind of contacts are done in coordination with OEHRM contacts. The field is obviously going to be under a lot of stress and strain as they take on this new system, and so we want to make sure that we are minimizing burden and optimizing researchers' access where it makes sense to themselves.

We will also be developing a library of area and organizational data to support site selection for research and to help conceptualize the organizational measures for new research. For example, much of my prior work has been in organizational factors driving VA performance, and we have no doubt that it would be helpful to identify organizational factors and measures that may be associated with easier or more difficult adoption and implementation.

We will also be exploring rapid data collection strategies. For example, in the VA Women's Health Research Network, the practice-based research network component of that led by Susan Frayne and Diane Carney at VA Palo Alto, we have been using practice scans to assess the care arrangement across the over 60 VA Medical Centers that are part of this network over time, and also anonymous Veteran feedback forms, or card studies, to gauge Veteran experience in a matter of weeks instead of months or years that traditional research might take. We're seeing whether or not this Women's Health Practice-Based Research Network can be helpful for PROVEN efforts as well.

We'll also be supporting dissemination with the other cores, not only including this research in EHR Synergy Cyberseminar series with the focus on implementation research, but also digestible lay summaries of research findings for our partners within and outside the VA. We also will be pursing funding for a journal supplement of EHR and research and have a lot of experience in doing this in other areas of VA HSR&D research to bring up a key focus on a body of work. And lastly, we'll be helping to accelerate EHR and related implementation research and evaluation to help VA optimize Cerner implementation.

Our core members, as I mentioned before, with the QUERI implementation training hubs are JoAnn Kirchner at Little Rock, Laura Damschroder at Ann Arbor, Alison Hamilton at GLA, and Kyler Godwin at Houston. And then the members locally are Julian Bunner, Isomi Miake-Lye, Kristina Cordasco, and Jeremy Shelton.

So, on behalf of all of the four cores, we wanted to just kind of remind you what the PROVEN core, excuse me, PROVEN Hub could do for you. As we’ve mentioned, we're here to provide technical consults with an array of EHRM experts across the VA to provide training and technical support on developing EHRM-related research methods and proposals; to help with identifying OEHRM and other partners and to help with recruitment and engagement at VA facilities; to facilitate EHRM research collaboratives, our goal is really to accelerate the successful funding, conduct, and dissemination of research in this area; and to support knowledge transfer to all of our partners within and outside the VA. So as folks have mentioned, we do have a single PROVENHub@va.gov e-mail where we can triage your inquiries and requests for information to the right folks within the PROVEN Hub.

Lastly, we just wanted to make sure you were aware of these EHRM resources for researchers, including EHRM and Research page, the research resource guide SharePoint. There's a VIReC website for implications for data users, which we know is definitely a top priority for those who are used to working with VA national data. There's the syndication SharePoint with all the focus on data management and migration knowledgebase that we hope you're aware of. There are weekly webinars on the syndicated data bits that have been put forward and archived. And then, obviously, the OEHRM intranet site as well.

So we, by design, wanted to make sure there was plenty of time for questions, and so with that, I will pause and see if any questions have come up.

Heidi: We actually don't have any pending questions right now, but I really would like to invite the audience. We’ve got a nice large-size audience out here today. I’d really like to invite you guys to submit questions. Use that Q&A screen that's on the panel. It should be on the right-hand side of your screen. As Becky said, we have a lot of time available for questions here. We can get started on those as soon as I see them come in. If any of the presenters have anything else additional they'd like to throw in right now while we're waiting for questions, this would be a good time.

[Pause 35:21 to 35:29]

Dr. Michael Weiner: This is Mike Weiner. I thought I’d just, while we're hoping to get incoming questions, I can mention a couple things. Becky mentioned the evidence sort of collection process, and one of our roles, I anticipate, is that we will help to organize and share a lot of the knowledgebase that develops and evolves as these projects and others get underway about EHR modernization. And so we're thinking of ways of doing that, to organize and share online in some sort of convenient electronic format, that is, types of information, so that's something to look for. And even if there are ideas that people may have about that, we certainly welcome that, other research topic areas that we may not have identified so far. We're very open to that as well. And I see some questions coming in.

Heidi: Yes. The first question we have here, is there a guideline [inaudible 36:47] policy that is used in [inaudible 36:50 to 36:54]?

Dr. Michael Weiner: Heidi, you were cutting out in my end here.

Heidi: Sorry about that. Is there a specific ethics guideline or policy that is used in this program?

Dr. Steven Simon: So it's Steven Simon. Not that I’m familiar with, and we have not been following one in particular. If you know of one, by all means, please share with us, and we will take that under advisement for discussion. There probably needs to be, now editorialized, probably needs to be some workgroup or an organized body that does look at potential ethical issues that arise with respect to EHR research. I suspect there certainly are ethical resources for research in general.

Dr. Michael Weiner: I’d say too, just to add to that, the projects that we presented here and Steven gave an overview of those pilots, those undergo IRB review just as projects normally would, and so the human subject protections are actually reviewed and approved for the research that's going on.

Heidi: Great. Thank you. The next question that I have here, what specific policy and process is in place to safeguard patient data?

Dr. Becky Yano: So, if I may, this is Becky Yano. The patient data, if you're talking about Cerner specifically, would be all the OEHRM policies that would be in place for any other EHR data that already exist. I think that also VIReC and VINCI will be handling the data access kinds of issues that would relate to researcher data security and the like, but there's nothing, I don't think there's anything different about how people are approaching data security and data privacy and safeguard under Cerner that are already required under CPRS.

Heidi: Okay. Great. Thank you. The next question here, do you have any advice for VA clinicians with an informatics master's, starting PhD fall 2020, to get involved? Would love to be involved somehow and do some EHR research that's of great value to the VA.

Dr. Michael Weiner: Yeah. This is Mike. We'd love to talk with you and learn about your interests and see how we can get you involved. Of course, working with us doesn’t require a certain degree, but it's great if we have special expertise that you can actually leverage in helping this research informatics initiative. So the e-mail address actually is displayed here, and we'd love to hear from you and see how we could work with you.

Heidi: Great. Thank you. The next question here, what security measures are implemented for establishing a chain of custody for external provider networks?

Dr. Becky Yano: That would be a question that we would end up directing back to OEHRM and others in OI&T, rather than it being a research question. Would folks agree?

Dr. Steven Simon: I agree with that. If there's a follow-up question, we're happy to address it, if the question is about research information being exchanged between VA and external providers, but let us know [unintelligible 41:02] question.

Heidi: Great. Thank you. Okay. The next question, what is the best way to explore the available data to get started on a research project?

Dr. Steven Simon: Sounds like that's a question asking about where you could find a list of available data resources. So it might be, if I could ask either maybe Jessica or Mike, they might have a better sense.

Dr. Michael Weiner: Yeah.

Dr. Jessica Davila: Yeah.

Dr. Michael Weiner: Sure. So there are actually data resources available that are emerging. There's one of the slides, this previous slide on EHR modernization resources. Some of these websites actually contain information about data models and the mapping of variables and that sort of thing, and we're happy to help facilitate access in certain ways. VIReC also through Maria Souden and her group is helping with aspects of actually using data, so we're collaborating very closely with them. And if you have questions where we can help provide answers about that, we're happy to get into more details with you. There's also the syndicated data bits call that's mentioned there. It's run on many Friday afternoons at, I think, noon Eastern time, and those are calls that discuss some of the technical details about the data and the emerging data structures, so that can be also a very helpful way to start to get familiar with some of the new system and the syndication process.

Dr. Jessica Davila: So this is Jessica. I just wanted to add on that we’ve been compiling some resources for the data and methods core that we hope to be able to stand up on the website in the very near future. That should have information about available data and links to resources that might be helpful. And then if there is a particular research project that you have in mind, you can always reach out to the PROVENHub@va.gov or any one of us, and we'd be glad to work with you one-on-one to figure out how we could come up with the data that's needed.

Heidi: Okay. Great. Thank you.

Maria Souden: Hi, Heidi?

Heidi: Yeah.

Maria Souden: This is Maria. Maria Souden from VIReC. I just wanted to jump in on that question too, because, obviously, as you're probably getting the idea, there is a lot of information that's being produced right now from all kinds of different aspects about the data and what they're going to be like, and there are a lot of unknowns until we actually go live. So, some of those on the resource slide that's in the handout, there are some addresses, websites that are really good for getting connected to information. So on the page on the VIReC site, there are links to all of the resources for understanding about the technical aspects of the data, information that's produced by the Office of EHR Modernization, as well as resources that we are producing on the research workgroup and for VIReC as well. So there's definite, this may be a good starting place if you're interested in data specifically, and then there's a lot of information about the transition in general and its impacts on research on the, I think it's the first link on the page, the research and EHRM SharePoint site. Thanks.

Heidi: Okay. Great. Thank you. The next question that I have here, I have a project that I completed enhancing the nutrition ordering process in CPRS. Is PROVEN solely to help with Cerner changes and improvements, or are there ways that you could help us develop our project, having done the project in CPRS?

Dr. Becky Yano: That's an interesting question. This is Becky Yano. One of our rapid pilot projects, as you noticed, is around the breast cancer registry. And in fact, their initial work is studying how it's operating and functioning in relationship to CPRS now, so that they can later study how it's changed or changing under Cerner. So, some of it just depends upon your approach and what you're seeking to learn from us, but I see no reason why you couldn’t reach out and see if there's something we can indeed help with.

Dr. Michael Weiner: I agree. This is Mike. And just to answer the question you posed, the PROVEN Hub is a hub that focuses on EHR modernization and the research around that, but like Becky says, we're also a network, and one thing that we can try to do is assist with other kinds of informatics research questions that may come up, even if they're not specifically focused on this, as we're a network intended to be helpful in sharing information and collaboration. So I think we'd be glad to see how we can help.

Heidi: Great. Thank you. The next question here, do outside academic faculty have to be affiliated or have an appointment with the VA to be involved in a PROVEN-associated project?

Dr. Steven Simon: I would say, it's Steven Simon. I would say that to be involved in one of the projects, you would have to go through whatever local affiliation with the project lead. So if you have a without compensation appointment as an academic affiliate, then you would certainly be allowed in that regard to be a project co-investigator. I would think that would be the most logical process, to go through the local affiliated site.

Heidi: Thank you. The next question here, how does the VA opt-in/opt-out, implemented last October, on sharing patient data sharing factor in this program?

Dr. Michael Weiner: This is Mike. That's an interesting question, because that's been a little bit of a moving target in terms of that opt-out process. We're sort of working within the framework of the data that are available to us, so community-based data are data that we study and that are used for clinical care, including the non-VA data, especially through the MISSION Act and community care program that's authorized by the VA now. So all of that is sort of fair game and I think very important territory for research, including research related to EHR modernization. You heard earlier about one of the pilots relating to referrals and consultations, and of course those outside sites are prime targets for a lot of the consultations that are occurring now. So I’d say it's very relevant to what we're doing.

Heidi: Great. Thank you. The next question here, does this agenda work in conjunction with any other research platforms like the research council, CHERP, or the VA Research Advisory for consistency or other commonalities needed for comprehension and measuring outcomes?

[Pause 49:53 to 49:59]

Dr. Becky Yano: There's a lot of ways of answering that question, which is why there was a pause. I think we do, as I just mentioned in one of the other e-mails here, we have calls with Maria Souden at VIReC every two weeks, and if it's that research council that you are referring to, there's a research workgroup with OEHRM and OSIRES, and so we work very closely with them to make sure that we're coordinating the agenda work. CHERP is one of 18 HSR&D COINs, so we, with my COIN director's hat on, have a number of collaborations with CHERP, but we also are engaging many of the HSR&D COINs, Centers of Innovation, so as to ensure that we're getting folks' input on the research agenda work that Mike is leading. So I think that we're doing quite a bit of work in that area. Our next step is also working with some of the national program offices on the VHA side to make sure that we haven't missed some essential agenda items for the national program offices, in addition to OEHRM that's already reviewed some of these. My understanding is that HSR&D is going to be putting forward some of the top priorities in that list that's gotten a lot of input from many, many groups in their upcoming summary of research priorities from HSR&D. But, again, this is not just a group of us four or our staff or other investigators doing this alone. Others may have other responses to that one.

[Pause 51:41 to 51:51]

Dr. Jessica Davila: So, Becky, this is Jessica. I just wanted to add on to that. If there are other groups that we missed who happen to be on this call, please let us know, and I think we've really tried to do our due diligence to reach out to all parties who are part of this process. So if we, for whatever reason, haven't connected with you yet, please let us know.

[Pause 52:10 to 52:18]

Heidi: Great. Thank you. The next question that I have, are you looking into integrating community care information into the VA medical records for ease of use?

Dr. Michael Weiner: That's something that, the PROVEN Hub is not doing that itself as an activity of the hub, but it's certainly something we would want to try to help foster. And there are other offices in the VA like the Office of Community Care that's more, I think, aligned with and charged with that sort of operational activity. I don't know what the OEHRM's role in that activity is right now, but that's something we could find out.

Maria Souden: Hi. This is Maria. Yeah. I would say that there is a council. There is a community care clinical council in OEHRM as well, and there is quite a big effort to achieve integration of data through the Cerner HealtheIntent platform, and then that data will be adjusted into the Millennium EHR. So that's definitely like in the pipeline. I’m not sure how much of that will be in play when we start going live, but it's definitely, I think the future is that really all of the reference data from any source could be integrated into the record.

Dr. Michael Weiner: Thanks, Maria.

[Pause 54:04 to 54:13]

Heidi: Okay. Let me see if I can find the next question here. How should research teams inform PROVEN hubs of research plans to add to the registry and to make sure we aren’t duplicating efforts?

Dr. Michael Weiner: That's a great question, because we do, as mentioned earlier, we are working on how to actually build that evidence base and repository, and so we'll be scanning literature and gathering as much as we can find, but there will probably be other activities that you may be involved in that are not sort of within our immediate reach, and so we would love to hear about them. We'd love to be contacted about the work you're doing, whether it's local, regional, or national, to hear details of your project and what you found, and we'd like to help you share those findings with others. That's a big part of our role. So I think we've been talking about how we can actually do that, setting up some electronic forms to facilitate the data-gathering process. So those are things you'll hear more about as those plans come together over the next several weeks. But certainly, feel free to contact us as well.

Dr. Becky Yano: We also have a PROVEN project registry that goes beyond those five original rapid pilot projects. Not surprisingly, several researchers at the Seattle VA, the VA Puget Sound Healthcare System, has geared up, given their very strong HSR&D center there, to conduct work locally and in their VISN. And so we have a larger project registry that includes all of their projects as well, and that registry has been routinely shared with OEHRM, and they’ve shared it with all of the EHRM councils and other key stakeholders at VA. So, good for us to be aware of your projects since that is being updated almost on a monthly basis. So we will get that onto the website so that people can check to see what projects are underway, as well as potentially connect with folks who are doing work in comparable spaces. We definitely see part of our job as brokering and helping make sure that everyone has got lanes for their research, and we're even developing data use agreements where someone may have extended and done quite a bit of work in a particular area and may be in a position to share to get even more papers published, for example.

Dr. Jessica Davila: So this is Jessica. I just want to underscore the reduction in duplication of research efforts. I think that's one of our, especially our goal for the data and methods core in particular is that we're hoping to avoid people trying to reinvent the wheel and maybe creating either similar databases or trying to figure out how to define variables that someone else may have already done. So for anyone who is working on a project that we're not aware of and would be willing to share what you're doing, I think that would only really help the greater community further our research efforts, so please feel free to reach out to us. Thanks.

Whitney: All right. This is Whitney. I’m taking over for Heidi. I believe that is all the questions we have for today's session. Thank you, everyone, for presenting today. I just have some last-minute comments before I exit out of the webinar. To all the attendees, when I close the meeting momentarily, you'll be prompted with a feedback form. Please take a few moments to complete that form. We do really appreciate and count on your feedback to continue to deliver the high-quality Cyberseminars. Once again, thank you, everyone, for joining us for today's HSR&D Cyberseminar, and we look forward to seeing you at a future session. Have a great day, everyone.

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