Cyberseminar Transcript

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Session: Women Veterans’ Reproductive Health Research across the Life Cycle: from Pregnancy to Menopause

Presenter: Jodie Katon, PhD, MS

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Rob: And as it’s just about at the top of the hour. I’d like to introduce our speaker today. Jodie Katon, PhD, MS is a research health science specialist at HSR&D Career Development, and HSR&D Career Development Awardee at the Center of Innovation for Veteran-Centered and Value-Driven Care at the VA Puget Sound Health Care System. And it’s just about 1 o’clock, Jodie can I turn it over to you?

Dr. Jodie Katon: Sure.

Rob: Here you go.

Dr. Jodie Katon: Alright. So let me just get this to slideshow mode. Alright, so thank you everyone for joining. This is going to be a presentation covering a wide variety of my research that I have done here at VA.

And as such I wanted to start with a quick poll question. So just to get a sense of kind of where everyone’s interests are and where their knowledge is. So if you could mark which of the following are true for you, please mark all that apply: 1) I provide health care for women Veterans; 2) I conduct women Veterans research; 3) I am a student studying reproductive health; 4) I am a woman Veteran; and 5) My spouse/partner/family member is a woman Veteran. So Rob, I think that poll should be live now.

Rob: It is, and answers are streaming in, we have a little over 50% voted, I’m going to give people a couple more moments. Excuse me, I’m sorry. And we’re up around 75% so I’ll go ahead and close the poll and share those results out.

And Jodie what we have is that 52% chose I provide healthcare for women Veterans; 37% chose I conduct women Veterans research; 22% chose I am a student studying reproductive health; 30% I am a woman Veteran, and zero are my spouse/partner/family member. And I’ll turn it back over to you.

Dr. Jodie Katon: Okay, great, so we have a wide variety of experience, perspective, and interest, so I’ll do my best to meet the audience where they’re at. But with that I just wanted to start first with a definition of what is reproductive health. So what we tend to think about reproductive health is really specifically related to contraception and pregnancy. But in fact reproductive health is defined much more broadly. And it’s really defined, I use the definition that the W-H-O promotes, which is a complete physical, mental, and state of social well-being that doesn’t just reflect the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes. So as such, this does include contraception and pregnancy and child birth, but it also includes menopause, various gynecologic issues, sexually transmitted infections, and many other issues and diseases as well as needs. And so I have organized today’s presentation to really provide some information on research that I have done in a variety of areas related to reproductive health.

So one of the first questions when I started at VA was, you know, kind of what do we consider when we think about women Veterans and reproductive health? And I think what’s important to think about is that when you take this broad prospective on reproductive health, women’s needs and concerns vary across the lifecycle. And these can interact and coincide as well with stage of life. So both in terms of years and where they’re at in the reproductive life cycle, but also where they’re at professionally. And for women Veterans this speaks to where they are in terms of their military service or separation from the military. And there can also be important interactions in terms of their other ongoing healthcare needs.

So I started in the VA in 2011 and this was really a fortunate time to start in VA because it was a time when a lot of resources and support kind of all coalesced together to make this a really rich atmosphere in which to launch a research agenda related to reproductive health. So just to kind of give you a sense of all the things that, of some of the things that were happening in during that time. First off, Dr. Kristin Mattocks published this paper in the *Journal of Women’s Health* on pregnancy and mental health among women Veterans. And actually it was this paper that got me interested in women Veterans and their reproductive health. This paper also got quite a bit of attention outside of VA and for several months was one of the most read papers in the journal. So really kind of raising the profile of women Veterans’ reproductive health research.

At the same time, Drs. Yano and Frayne got funding to launch the VA Women’s Health Research Network. And importantly, this network supports a series of working groups on different topics related to women Veterans’ health research, including one on reproductive health. And so when I started in VA this was a really important way for me to network, to build collaborations, and understand what folks were doing all around the country in this area. And I now actually lead this working group in collaboration with Dr. Laurie Zephyrin, as well as with Dr. Elizabeth Patton. Okay, and speaking of Dr. Zephyrin, in 2010 Dr. Laurie Zephyrin was hired as the first ever National Director for Reproductive Health. So again, we now have both research support but also really raising the profile in terms of operations in program and policy. And importantly, Dr. Zephyrin has continued to be an amazing partner, really supporting reproductive health research throughout the VA, not just mine but many of my colleagues. And so she continues to be a really important resource and partner. Also in 2010, following a conference on women Veterans’ health, Dr. Yano and colleagues published this paper that outlined what they saw as a unifying research agenda for ongoing research in women Veterans’ health. And what this agenda setting paper did was to highlight where the gaps were in the literature. And importantly for me what it called out was the fact that there was this major gap in the literature related to reproductive health of women Veterans. And so again, sort of elevating this topic as an area of important and ongoing research.

So I’m not going to go through this list of priorities, but basically Dr. Yano and colleagues had a long list of questions that still needed to be answered related to reproductive health of women Veterans. And I’ve just highlighted in yellow the ones that I think my research has helped to address. There are many other researchers across the VA addressing some of these same priority areas, as well as many of the ones that I am not currently working on. And so this, both programmatic as well as research support has really supported just an exponential growth in women Veterans’ reproductive health research. And this is evident by the growing literature.

So the first two columns on this graph were taken directly from a recent evidence map that was published by the Evidence Synthesis Program from Durham. And what this shows is, you know, between 2008 and 2011 there were less than 5 peer reviewed publications on women Veterans’ reproductive health. However, during the 3 years from 2012 to 2015 there were about 24 publications. And just in the less than 2-year time period from 2016 to August 2017 there have been about 23 publications in this area. This is based on an updated search that our working group recently ran as part of a systematic review that we’re working on. So again, this doesn’t represent just my work, this is the work of numerous colleagues across the VA, but really showing that this is a area of growing inquiry and interest.

So when I started in VA one of the first projects I took on was involvement in developing and publishing the first ever report on the reproductive health of women Veterans. And so I did this partnering with Dr. Zephyrin and the office of Women’s Health Services, as well as Dr. Frayne and her Women’s Health Evaluation Initiative out of Palo Alto. And so what we did is we looked at the administrative data and we grouped ICD-9 codes into a set of reproductive health conditions. And then we identified by age group what the top 5 conditions were. And not surprisingly these varied by age group. So if you look at the women of child bearing years, in 18 to 44 years old, some of the predominant diagnoses were menstrual disorders and endometriosis, sexually transmitted infections, urinary conditions including pelvic floor disorders, and then pregnancy-related conditions. Moving into the perimenopausal period, from about 45 to 64 years old, not surprisingly menstrual disorders and pregnancy no longer are an issue, but menopausal disorders become the prominent reproductive health diagnoses. Urinary conditions, pelvic floor conditions also remain in the top 5, as do sexually transmitted infections. And then when you start to look at women in the postmenopausal years what you see, not surprisingly, is osteoporosis, menopausal disorders remain, breast cancer also starts to become an issue. And again, urinary and pelvic floor conditions remain. So again, you can see that some of these issues and concerns remain throughout the life course, while others are really age specific and specific to certain parts of the reproductive life cycle.

So having said all of that, the majority of my research and my current Career Development Award focuses on pregnancy and VA maternity care. So I’m going to start off with that and work my way through the reproductive life cycle to my research on menopause.

So just to give you some background in VA maternity care. In 1996 maternity care was added to the VA medical benefits package, and this includes prenatal care, labor and delivery, and postpartum care. In 2010 these benefits were extended to include the first 7 days of care for the newborn for the first 7 days of life. It is my understanding that there is some legislation under consideration to extend this further, however I don’t know kind of where that is. And then in 2012 the Maternity Care Coordination Policy was published, and this is really important because in fact we’re not providing any of this care at VA Medical Centers, we’re purchasing all of this care from the community. And so the idea of needing specific care coordination for women who are using the VA maternity care is really important. And this policy lays out the need for there to be a designated maternity care coordinator at every VA Health Care system. And then all of the many things that they are responsible for.

So this is work by my colleague Kristin Mattocks. I was involved with this study, but basically as a result what we’re seeing is an increased demand for VA maternity care. And this kind of lines up also with the increasing number of women Veterans using VA health care and the increasing number who are of childbearing age. So here you can see that in 2008 we paid for roughly 12 deliveries per 1,000 women Veterans of childbearing age. By 2012 this rate increased to about 18 deliveries per 1,000 women Veterans. And what this now translates in terms to in terms of absolute numbers is we’re paying for roughly 3,000 to 4,000 deliveries per year. And what it brings up is when we think about Veterans who come to VA, we know that there is evidence that these Veterans are different and that they often have more complex medical and mental health concerns, all of which could impact pregnancy. And so the question is, you know, are we paying for women to get care who are higher risk, who require perhaps more care coordination or other enhanced services, to ensure that they get the best quality care and have the optimal outcomes for both them and their babies. So this was a research question that I wanted to explore further.

And one way of looking at this and trying to think about it was to think about pregnancy complications. So I was fortunate enough to be able to collaborate with the Women Veterans Cohort Study. This is run out of Connecticut and this study focuses on specifically Veterans who are deployed to Iraq and Afghanistan for Operation Enduring Freedom and Operation Iraqi Freedom. And using their administrative data I was able to identify a cohort of women Veterans who had been deployed and who were using VA maternity care. And what I did is I compared them with the national data for women delivering in the U.S., looking at two relatively common pregnancy complications. The first is gestational diabetes, or GDM, and the second was hypertensive disorders of pregnancy. And so the two things that, two of the reasons why I chose these conditions are that 1) as I mentioned they are relatively common, but 2) they actually carry health implications, both in the short term for mom and baby but also across the life span. So for example, women who have gestational diabetes are about 50% more likely to develop diabetes over their life course than those who don’t. So what you see here is in the dark blue bars, these are the observed number of cases in this cohort. And then the turquoise bars show the expected number of cases. So based on data from the U.S. population how many cases of gestation diabetes would we expect? And clearly the dark blue bars are higher than the turquoise bars, and when we adjusted for age and year of delivery, in fact what we found was that women Veterans who were using VA maternity care who had deployed to OEF and OIF were at about a 30-to-40% increase risk for these specific complications of pregnancy. And again, this is important because these women then, they represent higher risk pregnancies but they also represent higher, they have higher risk for development of chronic disease later in life. So it’s implications both for their short term maternity care but also long-term care and disease prevention.

So the question is, you know, why might this be? And could this be an effect of deployment? Again I was able to, with the help of my mentors, identify a really good dataset to try to answer this question. So I was partnered with the VA Office of Public Health, who had conducted this large National Health Study for a New Generation of U.S. Veterans, which we refer to as the New Gen study. Two things about this study that were important, 1) they oversampled women Veterans, and 2) they collected lifetime pregnancy data on all of their respondents. So we were able to look at women’s reproductive history from both before deployment as well as after deployment. And then they had a cohort of women who had not been deployed who we could look at as a comparison.

So using this data, we identified about 2,200 live births and this included a little over 1,500 births to non-deployers and about 700 to deployers. And we, again, we categorized these both on deployment and timing relative to deployment. So you can see the blue bars are deliveries among the non-deployed. The turquoise bars are pre-deployment deliveries. The Dark grey are during deployment, and I’m going to skip over those because this is a little bit of a different category. And then the light grey bars are the pregnancies and deliveries that occurred after deployment. And so what’s interesting is that if you look at the blue bars versus the grey bars, with respect to preterm birth and low birth weight, there isn’t a great deal of difference, these look roughly the same. However, if you look just among deployers, and you compare the before deployment to after deployment you see about a twofold increase in risk. And this is true for preterm birth, which we defined as less than 37 weeks completed gestation, as well as low birth weight, which we defined as less than 2,500 grams at delivery. We didn’t see anything really for macrosomia, which these are babies that are too large, or greater than 4,000 grams, which carries some other risks in terms of birth injury as well as respiratory issues. But again, you know, we would have missed this trend, this twofold increase in risk had we just compared the non-deployed to the post-deployment pregnancies. And of course the question arises here whether you know what we’re seeing is real, is it an impact of deployment or if it’s simply about aging, because both deployment and pregnancies are occurring over time and we know that women’s risk for preterm birth and low birth weight increases as they age.

So we did adjust for age at outcome as well as race/ethnicity, and so what you are seeing here is adjusted odds ratios with the reference group being the deliveries occurring before deployment. And while the confidence intervals got wider, in part because we had smaller numbers, you do see a similar pattern, so you still see about this twofold increase risk for preterm birth, relative in after deployment, relative to before deployment, and similar results for low birth weight. Interestingly, you also see that those who are not deployed are at about a twofold increase risk relative to pregnancies before deployment. And we think that this is really speaks to sort of the healthy deployer bias, and that those who deploy will often tend to be healthier or be different in terms of habits and other factors that could impact their birth outcomes.

So if in fact these results are real, the question is what could be the underlying mechanism? What could be driving these associations? And I think there’s really two, I mean there’s many possible explanations but the two that get the most coverage are mental health as well as environmental exposures. So we know that broadly, deployment often increases risk for mental health concerns, specifically posttraumatic stress disorder, depression, and anxiety. And outside VA there is a fairly substantial body of literature that indicates that in particular depression and anxiety are associated with increased risk of low birth weight and preterm birth. And this is probably through some combination of biologic as well as behavioral pathways. There is less with respect to PTSD, however there is a growing interest in this and there has been some recent literature that also suggests PTSD in non-Veterans is associated with low birth weight and preterm birth. In terms of environmental exposures, this is something that gets a lot of coverage in the media and I think elicits a lot of fear, you know, things about burn pits, various chemical exposures, and other types of occupational exposures that women Veterans experience as a result of deployment. I think the evidence here is much weaker and, you know, when we think about sort of more widespread exposures, it’s very specific chemicals and whether they would have a short or a long-term effects on reproductive health. I tend to find this explanation a little less compelling, whereas we know that mental health conditions are widespread and they have these kind of broad impacts on health and behavior.

So thinking about mental health is the explanation. This is a summary of work by my colleague and friend in Palo Alto, Jonathan Shaw, I have been honored to be involved with some of this research. But what he’s shown is looking at pregnancies and/or at deliveries that VA has paid for, is a diagnosis of PTSD in the year prior to delivery associated with a range of pregnancy outcomes? And so his first paper looked at spontaneous preterm birth and he showed about a 30% increase risk. And then the next paper, and this is the one that I was involved with, we looked at, was PTSD in the year prior to delivery associated with gestational diabetes and preeclampsia? And in fact we did find that PTSD in the year prior to delivery appeared to increase risk both for gestational diabetes as well as for preeclampsia. So I think that these results, while not definitive, certainly support the idea that the pathway from deployment to adverse pregnancy outcomes may be through mental health.

So just to summarize kind of everything I’ve talked about with respect to pregnancy, I think women Veterans using VA maternity benefits may be a high risk group. At least as evidence by their high prevalence of complications and that this has implications, as I mentioned, not just for short term health, but for later chronic disease risk and management. I think our data is beginning to suggest that deployment may increase risk for at least some specific pregnancy outcomes, namely low birth weight and preterm birth. And mental health seems to be an important explanatory factor that needs further exploration. In terms of next steps, my CDA actually focuses on VA maternity care, with the overarching goal of identifying means of enhancing care to improve clinical and behavioral outcomes among pregnant women Veterans. And we just started this work about a year ago and we’re wrapping up the first data collection for the first aim this month. So stay tuned; I’m hoping to at some point in the near future share some of those results.

So if you remember back to the graphic in terms of women Veterans’ reproductive needs, I think what was clear is that across the lifecycle, women Veterans require gynecologic care. Whether it’s for sexually transmitted infections, menstrual disorders, menopausal disorders, or other types of gynecologic issues. And VA has really been growing their gynecology care over the past 5 to 10 years. But there’s a lot of questions in terms of how this care is organized, where VA gynecologists are practicing, and how they’re practicing, and whether women Veterans are in fact getting high quality equitable gynecology care.

So to just give you a sense of how VA gynecology care is organized. Gynecology care tends to, you could categorize it into three categories. So the first is basic care, and in fact this type of care doesn’t require a gynecologist, this can be provided by a primary care doc who has some training in women’s health, and includes things like basic family planning, and preventive screenings and health care. Outside of VA gynecologists frequently do act as women’s primary care providers, however in VA gynecologists are largely acting as specialty care providers, and as such they focus on specialty GYN care, which can include surgical and medical management of benign gynecologic conditions, menopausal symptom management, care for pelvic pain and sexual dysfunction, as well as some more advanced family planning, including fertilization, IUDs, implants, and sterilization. Additionally, there is a small cadre of VA gynecologists who provide or have training in subspecialty care, so this would include urogynecology, reproductive endocrinology, and gynecologic oncology.

So where are VA gynecologists practicing? So I’m going to present in the next two slides evaluation work that I was involved with as part of my work with Dr. Zephyrin and the Office of Women’s Health Services. And so this first bit we were looking at, you know, who are VA gynecologists? Where are they practicing? And what are they doing? Currently there are about 104 VA Health Care Systems out of 140 that have at least one gynecologist on staff. And not surprisingly, what you see is that the majority of VAs with at least one gynecologist are these level 1A, level 1B facilities, so the most complex facilities. Very few facilities that have a gynecologist are located in rural or non-metropolitan areas. And about 60% of those with a gynecologist are serving greater numbers of women Veterans. So again, if you think about what it takes to have a gynecology practice in VA, this shouldn’t be surprising. You have to have the demand, you have to have the space in the facility, the support, both in terms of staff as well as equipment in order to really support a full gynecology practice.

So what about where VA gynecologists aren’t? So currently there are 36 VA Health Care Systems that do not have a staffed gynecologist. However, it is worth noting that of these, 42% provide at least some select gynecology services, so things like IUD insertion and removal. And really this is the opposite of the slide I just showed. So the majority of these sites, and some of the least complex sites, many actually don’t even have, don’t even do outpatient surgeries at all. About a quarter of them are located in more rural areas, and they are largely serving smaller numbers of women Veterans. So if you think about, you know sort of, in many ways these sites represent where you might not have adequate supports or demands for a full gynecology practice.

But as I mentioned, it’s not just enough to have gynecologists, we want to ensure that women Veterans are receiving high quality gynecology care. And one measure of quality relates to hysterectomy. So hysterectomy, which is the removal of the uterus, is actually the second most frequent surgery among all U.S. women, the first being cesarean section. And this is a surgery that can be used to treat either gynecologic malignancies or benign conditions such as fibroids. Importantly, while kind of the more traditional rout is through an abdominal, open abdominal incision, there are now a number of different minimally invasive techniques that can be used that reduce hospital stays, speed recovery, and reduce infection. And outside VA there are documented racial and ethnic disparities in terms of who receives these minimally invasive techniques. Overall nationally, we’ve seen a decrease in hysterectomy rates, and this is probably a result of increased options for treating benign gynecologic conditions, such as fibroids, that don’t involve removal of the uterus. And we’ve also seen among hysterectomies that do occur nationally, an increased uptake of minimally invasive techniques. So our question was, you know, is VA in fact keeping up with these national trends?

So we used data from CDW identifying all hysterectomies occurring between fiscal year 08 and fiscal year 2014. And we looked at both those occurring within VA as well as those that VA paid for in the community. I’m just going to focus primarily on those that occurred within VA and those that were done for benign indications. And what you can see here is this top most line represents the rate of abdominal hysterectomies. And you can see it’s a pretty rapid or profound decrease from about 1.5 per 1,000 women Veteran VA users to less than 1 per 1,000 in FY 14. And there is a slight, a very small uptick in terms of the rate of some of these minimally invasive procedures, so the triangles here represent the rate of laparoscopic hysterectomy, and then the diamonds are vaginal hysterectomy, and then these dark squares at the bottom this is the rate for robotic. And again, these are the three minimally invasive approaches that when possible are preferred because they reduce hospital stay, infection, and risk of other complications. So looking at this data, actually VA is in fact keeping up with national trends, in terms of reducing the overall rate of hysterectomy, specifically abdominal hyst.

And if we look at the distribution in terms of the mode of hysterectomy for benign indications, again, you see we’re really keeping up with national trends. So in fiscal year ‘08, about 65% of all hysterectomies performed in VA were abdominal. And then by FY ‘14 this went down to about 45%. And you can see that there was a concomitant increase in the percentage that were done either laparoscopically or vaginally. The patterns are less clear when we look at care that VA purchased from the community, and this is probably because depending on a site’s capacity and whether or not they had a gynecologist and what they’re training was, there can be different forces that would lead to a woman having a hysterectomy outside of VA. But again, this is good news. We’re really keeping up with national quality trends.

However, the story isn’t as good when we looked at equity. So I had mentioned outside of VA that there was evidence of racial and ethnic disparities in terms of minimally invasive hysterectomy. And our results actually show that we see similar disparities in VA. So here you’re looking at adjusted relative risks from multinomial regression, and so these dark blue circles are the reference group, which was White women Veterans, the turquoise represent Black women Veterans, and then the brighter blue are Hispanic women Veterans. And what you can see is that in particular Black women Veterans in VA had about a 40% decrease risk of receiving either laparoscopic versus abdominal or vaginal versus abdominal, relative to White women Veterans. The data is a little, or the results are a little more mixed when it comes to Hispanic women Veterans, however our numbers were quite small so I think it’s actually difficult to interpret these, but it would suggest that with respect to laparoscopic versus abdominal, Hispanic women Veterans were no more, more or less likely to receive the minimally invasive option, but did appear less likely than white Veterans to receive a vaginal versus abdomen hysterectomy. So again, while this isn’t great news, it is in keeping with what’s been reported outside of VA.

So in summary, you know VA gynecologists are practicing in a range of settings, although they are predominately practicing in more complex facilities in urban areas with larger number of women Veterans. In terms of overall hysterectomy trends VA has kept pace with national trends. But there are racial and ethnic disparities in minimally invasive hysterectomy in VA. And we hypothesize that these could be due either to clinical differences or differences in pathways to hysterectomy. And actually on of the projects that my team is currently involved with is a mixed methods study where we’re examining the role of both system and clinical factors in surgical decision making to see if these factors may be contributing to these observed disparities. And we’re partnering with Office of Health Equity as well as the Office of Women’s Health Services for this work. So again, stay tuned.

Okay so moving towards the tail end of the reproductive lifecycle. There is lot less literature on women Veterans and menopause, but I’ll just share some of what we’ve done.

So our work in this area has focused on the prevalence and impact of menopausal symptoms among women Veterans. Specifically, we’ve been interested in hot flashes and night sweats, which are otherwise known as vasomotor symptoms, or VMS. These symptoms are very common, and while they sound benign are actually can have really profound negative impacts on women’s lives. So they’ve been found to be associated with increased health care utilization, as well as impairment of activities of daily living. And some work that was published by Dr. Megan Gerber in Boston, as well as just the general demographic profile of women Veterans suggests that women Veterans may be more vulnerable to VMS.

So we were lucky enough to be able to obtain access to the Women’s Health Initiative data. So this is data from the ongoing observational study that has continued for I think about 15 years now. And one of the first things we did was to compare the prevalence of VMS between women Veterans and non-Veterans at baseline who were enrolled in this study. And actually this was the surprise to us because what we found was there was no difference, roughly 30% of Veterans and 30% of non-Veterans reported at baseline that they experience these symptoms. When we looked at severity there also was no difference, women Veterans were as likely as non-Veterans to report experiencing severe VMS. So this was a surprise, not what we had expected to see.

However, we were also interested in the associations of VMS specifically with health related quality of life. So there is a lot on this slide, but the x-axis, both for the Veterans and non-Veterans, represents four different scales for health related quality of life. So the general health, physical functioning, emotional well-being, and social functioning. And then the y-axis shows the difference associated with presence versus absence of VMS. So a negative difference would indicate that VMS was associated with a worsening on that scale. And for both Veterans and non-Veterans we see that a presence of VMS is associated with worse health related quality of life on all of these scales. Now, the confidence intervals again get broad but what you do see, that’s quite interesting to me, is that when you look at the Veterans this negative impact appears to be greater. So you know, we’re getting close, for instance, on physical functioning to about a 5-point decrease versus maybe a 2.5 decrease in the non-Veterans. Unfortunately, in this data we weren’t able to look very closely at whether or not this might be explained by mental health, or prior trauma history, or understand really the mechanism behind this. But I think that this is really an area that deserves future research.

So in summary, women Veterans surprisingly do not necessarily experience more frequent or sever menopausal symptoms than non-Veterans. But women Veterans have greater difficulty managing these symptoms, and they in fact may be more negatively impacted. And as with pregnancy, I think the role of mental health needs to be further explored, and whether or not this could be a key explanatory factor.

So I’m just about at the end of this presentation and I wanted to kind of conclude with some overall statements and remarks. So one is, I hope I’ve shown that women Veterans’ reproductive health research is a rapidly growing area of inquiry. And I do want to point out that our reproductive health working group is actually currently doing a systematic review of the literature. We’re hoping to have that manuscript submitted by the end of the year, but right now we have about 52 or 53 articles that we’re reviewing in full for that review. I also think that mental health has an important role in both the reproductive health as well as health care of women Veterans. And I think that there is ample room for continued research in this area. And then as VA continues to build programs to deliver reproductive health care, I think that ongoing evaluation is needed both to ensure quality, but also equity of this care.

So as, just before I conclude there is a laundry list of people both at VA Puget Sound and other VAs, who I want to thank, who have been instrumental to this work, providing mentorship, collaboration, access to data. In particular, I want to thank Dr.’s John Fortney and Elizabeth Yano, who are currently my co-primary mentors on my CDA, as well as Dr. Gayle Reiber who was my co-primary mentor before her retirement last April. I’ve been lucky to have multiple wonderful operational partners, including Dr. Zephyrin and the VA Office of Women’s Health Services, as well as Dr. Uche Uchenna, and the VA Office of Health Equity. And of course, I have received funding from a variety of different sources to support this work, so again, without these people, without these funding sources and operational partners none of this work would be possible, so I just want to make sure I thank all of those folks.

In terms of resources, if you have specific questions feel free to email me at [jodie.katon@va.gov](mailto:jodie.katon@va.gov). I’ve also provided here information and contacts for the VA Women Veterans Research Network. You can contact myself or my other co-leaders for the Reproductive Health Working Group. For general questions you can contact Dr.’s Yano or Klap. And then I didn’t talk about the Practice Based Research Network but if you have questions about that Dr.’s Frayne and Carney are the contacts. I have included links both for the Evidence Map and the State of Reproductive Health Report. I will say that I know for the Evidence Map I think this is internal only, I don’t think that this report has been released publicly yet, so unfortunately if you’re not in VA and you’re not at a VA computer you may not be able to access this. I think the State of Reproductive Health Report is now publicly accessible. And with that, I’m going to end and open the floor for questions.

Rob: Thank you Dr. Katon. We don’t have any questions queued up currently. Audience members, if you’d like to submit a question you can go ahead and do so in the questions section of the go to webinar dashboard, you can open that up just by clicking on the triangle, and you can actually pull that right out. As I say, we don’t have any questions currently.

Dr. Jodie Katon: Okay

Rob: If you wanted to make some closing statements I

Dr. Jodie Katon: Sure

Rob: Alright, go ahead

Dr. Jodie Katon: Okay. So I did mention the Reproductive Health Working Group, I suspect that many of you who are on this call are already members, but our next meeting is scheduled for November 7th, I believe, and we’re going to be hearing form someone in VINCI Services. We’ve had a lot of questions in our group about VA data and how to access it, how to use it for reproductive health research and so Dr. Christine Lynch from VINCI services down in Salt Lake is going to be talking to us. We also usually try to leave room for discussion. And then I think our January meeting is, I believe that Dr. Ginny Ryan will be presenting some of her work on infertility among women Veterans. So if you want to be signed up to be involved with this group, like I said, contact me or my co-leads, that’s on that final resources slide, we’d love to have you, it’s a pretty inclusive group and we look forward to those conversations. Alright, are there any questions?

Rob: Here’s a question Dr. Katon.

Dr. Jodie Katon: Awesome

Rob: Do you think VA will shift from mostly purchased care to in-house provision of care at some point? And if so, any thoughts on timing, et cetera?

Dr. Jodie Katon: Okay. That’s a loaded question. I can’t read the tea leaves. You know from what I’ve been hearing, you know, I think there is this emphasis on really making smart decisions in terms of what types of care should VA be providing in-house versus purchasing from the community. I think with respect to reproductive health care, the environment really matters. If you think about those slides that I showed with respect to where VA gynecologists are practicing, it takes more than just hiring a gynecologist to provide full gynecology care. And not all centers are able to do that. And so I think it’s going to vary from location to location, both in terms of what the center looks like, in terms of complexity, and what other types of care they provide and what supports they can provide, as well as demand. But I, you know, I’m not a fortune teller, I think things are changing rapidly and some of these, a lot of these decisions are specifically regarding reproductive health care are going to have to be local. I do think that we’re not, we’re never going to be delivering babies in VA for a lot of very good reasons. And it’s probably unlikely that we’ll be providing like full pre-natal care in VA. But with respect to all other care, I can’t say.

Rob: Great, thank you. Next question.

Dr. Jodie Katon: Sure

Rob: Were you able to assess combat exposure for the pregnancy related outcomes you reported on? Previous research looking at a range of outcomes associated with deployment have found combat to be the key exposure, rather than deployment.

Dr. Jodie Katon: Right, yeah, so deployment is not a great exposure because it’s rather nonspecific, right? So I think this is an excellent question. And I believe, I think that they’re referring to this slide and this study using the new gen data. So you know, given that we had about a little over 2,000 live births, which sounds like a lot, but when you’re dealing with outcomes like preterm birth and low birth weight, which are still relatively common adverse outcomes, your numbers are small enough that it’s hard to really parse it out beyond deployment. Ideally I think you do need to start to look at specific things, like combat, as well as if you were interested in environmental exposures, being able to, you know, really look at specific chemical exposures. We weren’t able to do that, the numbers really didn’t support that here. But I think that that is certainly research that needs to be done. So yeah. Hope that answers the question. And I’m certainly willing to have a longer offline discussion about that and about the feasibility.

Rob: Thank you. Next question. Is there any legislation, that you are aware of, addressing the need for more research and or more services around women Veterans’ reproductive health or health in general?

Dr. Jodie Katon: So in terms of research I am not aware. I think that there may be some upcoming or recently passed legislation in terms of provision of health care, but I really can’t speak directly to that. So you know, I know there are folks who have been pushing for a long time for certain things, and whether or not that comes to fruition, I can’t say.

Rob: Okay. This next person prefaces their question saying that it may not be a quick answer. What does Dr. Katon see has key take homes from the current research in this area for clinical mental health providers who work with women Veterans?

Dr. Jodie Katon: Okay. So you know, as I mentioned in my overall conclusions, I definitely think from a research perspective that mental health has a really important role in the reproductive health and health care of women Veterans. And I think that, you know, from the provider angle this can mean a number of different things. You know, I have colleagues who really are working on this area of preconception care and pregnancy planning, so in that case it would be if you have a woman who, let’s say has depression or PTSD, you know, really talking with her about what are her pregnancy intentions? Is she thinking about getting pregnant? And then what might she consider in terms of insuring that her PTSD is well controlled, that she either goes off of or switches medications if necessary, or has that conversation about risk versus benefits with certain medications, because I think there is a lot of unknowns when it comes to medications and pregnancy. And then also awareness over how pregnancy might affect her mental health condition. So we know that many women will come into pregnancy with a history of depression and that that pregnancy or postpartum, they’ll have a reoccurrence. And so what can clinicians do to both prepare women for that so they recognize the symptoms and then get the care they need, but also potentially proactively talk about preventive measures. You know, again, I think all of this really speaks to the need to integrate mental health into all areas of primary care as well as reproductive health care. And so I think that one piece of that is clinician education, especially in the context of VA, where outside of designated women’s health providers or women’s health clinics many physicians don’t routinely see women, let alone women who are, who have reproductive health concerns. Whether it’s pregnancy or whether struggling with menopausal symptoms, or other types of gynecological conditions. So I’m not sure if that is a full answer, again, I’m happy to take these conversations offline, but hopefully that gave some perspective.

Rob: Jodie, maybe you should put the slide up with your email address now.

Dr. Jodie Katon: Yes, alright, so as I’ve said, if you have questions that you’d like to discuss further, in more detail, offline, please feel free to email me. I’m always happy to chat. And yeah, are there further questions?

Rob: We have two more questions. What is being done to address variation in access to less invasive care for minority women?

Dr. Jodie Katon: Okay, so I’m not sure what they mean by less, I think they’re referring to minimally invasive hysterectomy? I’m hoping.

Rob: That person can go ahead and type her answer to that question, and yes, she says yes.

Dr. Jodie Katon: Okay. So right now our work that we’re doing in partnership with the Office of Health Equity is actually trying to identify recommendations for how we can reduce this disparity. And so one thing that the data is showing is that there are sites where in fact they are serving a large number of minority women Veterans, but they’re not doing any minimally invasive gynecologic surgery. So the question is, what can we recommend in terms of policy and practical support so that they overall increase, so that they start doing minimally invasive surgeries at these sites, or increase their capacity to do them? There are other sites where they are doing minimally invasive surgeries and we still see this disparity. And so the question here is, what’s going on in terms of, you know, are minority women coming in at a point where they no longer are good candidates for minimally invasive surgery? And so what can we do to build trust, build awareness, and perhaps encourage women to come in earlier in the disease process? That’s kind of a harder question to ask. So our study, we’re going to be talking with VA gynecologists about this, in a variety of sites. And we’re also going to be doing some chart abstraction to try to understand some of the clinical characteristics that are not readily available just through ICD-9 codes, so this would be related to like fibroid size and other things that might determine the choice in terms of surgical mode. So right now we don’t have a lot of concrete suggestions, but our work with the Office of Health Equity is really designed to try to provide those. So like I said, stay tuned. I’m hoping we’ll have some good suggestions coming from that work. Alright so there’s one more?

Rob: Yes. Is there a specific number of uniques needed per GYN FTE?

Dr. Jodie Katon: So I think that this question is, if I’m understanding correctly, is asking about, you know sort of, what is the optimal number of women Veterans where we know we should have a gynecologist on site? And I would say that we have looked over evaluation data that we did in the 36 sites that didn’t have a VA gynecologist, we did in depth interviews with various leadership at those sites, we looked at some of their quantitative data, as I’ve shown, and we had some rough suggestions but at the end of the day it’s not just about the number of uniques, it’s also about what the site looks like. So even if you serve a large number of women Veterans, if it’s a site that has absolutely no surgical capabilities it may be very hard to have a gynecologist, because gynecology is a surgical specialty and a large part of the care that they provide is surgery. So that can make it challenging to hire an onsite gynecologist, unless they can also practice part of the time, perhaps, at an academic center. So you know, I think, there isn’t a magic number, we have put forth and suggested some ideas to the national surgery office, both in terms of number of unique women Veterans, as well as site complexity in terms of what might be the ideal place to start where you would require that a gynecology practice be, but there is, I don’t think it’s kind of a very clear black and white issue. So, sorry I don’t have a definitive number to give you.

Rob: One more came in while you were answering that one.

Dr. Jodie Katon: Okay, alright.

Rob: Have you considered or do you have midwives working in any VA sites to provide both OB and GYN care?

Dr. Jodie Katon: Okay, so to reiterate, we do not deliver babies in VA. We do not, we don’t provide maternity care on site. There is one place where they contract non-VA providers to come in, I think once a week, to do prenatal care, but even in that case the deliveries are all occurring at the academic affiliate nearby. And I think I know who this question is coming from. We’ve started to kick around the idea based on some of the findings from research I haven’t presented here because it’s still really early stage, you know, about what could VA do to better support women who are receiving their maternity care outside of VA but who may benefit from or want specific models of care, such as nurse midwives, doulas, et cetera. And it’s really challenging in terms of both what types of care VA can pay for, as well as, you know, sometimes women are in areas where their care choice isn’t available, unless they travel long distances which then makes it really inaccessible. So I guess I will say, I don’t think we will be bringing midwives into VA anytime soon. However, thinking about ways to increase women Veterans access to midwife or doula care is something that, it’s definitely been on my mind, particularly the last few months, but it has a lot of challenges. Maybe it takes someone smarter than me to figure this one out. So, thank you for the question though.

Rob: Okay well we are just about out of time, so I want to thank you once again, Dr. Katon, for presenting your very important research. For the audience, when I close the meeting momentarily you’ll be prompted with a feedback form. Please do take a few moments to fill that out. We really appreciate and count on your feedback to continue to deliver high quality Cyberseminars. As its 1:59, I guess you could go ahead and make a quick closing statement if you want, Jodie, or I can go ahead and close the meeting.

Dr. Jodie Katon: I’ll just say thank you for everyone who has joined, and once again I just want to thank all of my collaborators, mentors, colleagues, operational partners, and funders.

Rob: Great, thanks again. Have a good day everybody.

[END OF AUDIO]