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Session:  Contraceptive Care in the VA Healthcare System: New Insights from a National Survey

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Molly: And we are at the top of the hour, so without further ado, I'd like to introduce our speakers. Joining us first today we have Dr. Sonya Borrero. She’s a core investigator at the Center for Health Equity Research and Promotion, known as CHERP, and that's located in the VA Pittsburgh. She's also an associate professor of medicine and the director of the Center of Women's Health Research and Innovation at the University of Pittsburgh. And joining her today we have Dr. Lisa Callegari and she's an investigator in health services research at four health services research and development and a staff gynecologist at VA Puget Sound as well as an assistant professor in the Department of Obstetrics and Gynecology at the University of Washington. We're very grateful for our presenters joining us today and without further ado I’ll turn it over to you Dr. Borrero.

Dr. Sonya Borrero: Okay. Great. Let me just pull up our slides. Okay Molly, does… everything looks okay?

Molly: Yep, looks great.

Dr. Sonya Borrero: Okay. Awesome. Hi everyone. We are super excited to talk about some new data on contraceptive care in the VA from a recently completed study. So our plan for today is first I’m going to describe a little bit about the study and then present some estimates on unintended pregnancy rates and contraceptive use among a national sample of women Veterans and we'll draw comparisons to national data on unintended pregnancy and contraceptive use. And then Dr. Callegari will be kind of diving further into some of this data to look at unintended pregnancy risk and contraceptive use among specific vulnerable subpopulations among women Veterans including: Racial/ethnic minority women, women Veterans with medical comorbidities and women Veterans with mental illness. And then she'll just finish up with a review of the implications and future directions.

Just to get a sense of kind of who we're talking to we just wanted to throw in this first poll question which is: What is your primary role in VA? And our response options here are: VA researcher, non-VA researcher, clinician, management and operations or other.

Molly: Thank you. So the responses are coming in. For our attendees just go ahead and click on that circle right there next to your response. If you are selecting other please note that I will have a more extensive list of job titles in the feedback survey at the end so you might find your exact title to list there. All right great responsive audience. We've already had 84 percent reply so I’m going to go ahead and close this out and share those results. Looks like 29 percent their primary role is VA researcher, three percent non-VA researcher, 26 percent clinician, 8 percent management or operations and 34 percent selected other. So thank you to those respondents and I’ll turn it back to you.

Dr. Sonya Borrero: Okay, great. Although now I’m really curious who other are. All right… okay so unintended pregnancy is a prevalent issue in the U.S. with recent estimates that about 45 percent of all pregnancies are reported as unintended and unintended pregnancy has been linked with a range of adverse health consequences including delayed entry into prenatal care, a higher prevalence of smoking and alcohol use during pregnancy, a higher likelihood of maternal depression and intimate partner violence and a lower likelihood of breastfeeding. There is some data suggesting associations with poorer perinatal outcomes such as low birth weight and preterm birth, but these data are more mixed. We know that effective contraception and consistent use of effective contraception is one of the most effective ways of averting unintended pregnancy. And therefore, contraceptive care is an integral part of preventive and primary care. It’s an idea which has recently been affirmed by the Institute of Medicine.

So we probably don't have to tell most of the people listening today that the number of women Veterans of reproductive age has been growing in the VA. So the figure on the left-hand side shows the number of women VA-users from 2003 to 2012 and you can see the sort of growth. And the pie chart on the right shows the age distribution of women Veterans. And you can see here that over 40 percent of women Veterans in fiscal year 2012 were ages 18 to 44.

So although until now we have not had any estimates on the rate of unintended pregnancy among VA-users, women VA-users. We have speculated that this population may have an increased risk for unintended pregnancy. This is because women Veterans who use the VA are disproportionately from lower income strata; from racial/ethnic minority groups; they have a high disease burden of medical and psychiatric illness; and high prevalence of sexual assault histories. And all of these have been independently linked with unintended pregnancy in non-Veteran populations. In addition, they're seeking care in a healthcare system that has historically cared for men. So in addition to elevated or potentially elevated risk of unintended pregnancy we also thought that perhaps the negative effects associated with unintended pregnancy may be amplified in this population given the prevalence of medical and mental comorbid conditions.

So as I mentioned before, effective contraceptive use is the most effective way of preventing unintended pregnancy. And prior, our prior research using national VA administrative data indicated that only 22 percent of women VA-users had a documented prescription contraceptive method. And other than that very little has been known about contraceptive care.

And so to address some of these knowledge gaps we wrote and were funded by HSR&D to conduct the Examining Contraceptive Use and Unmet Need among Women Veterans Study or ECUUN. And the main objectives of this study were first, to obtain rates of contraceptive use, unmet contraceptive need and unintended pregnancy in a national sample of women Veterans. Second, to determine which subpopulations of women Veterans are at highest risk. And then finally to identify key modifiable barriers and facilitators to contraceptive use and how these vary across subpopulations.

So ECUUN included a cross-sectional, telephone-based survey that was ultimately conducted between April 2014 to January 2016. And the survey collected a large amount of information on reproductive outcomes as well as factors affecting risk of unintended pregnancy and contraceptive use. We included a random sample of female Veterans aged 18 to 44 who have received primary care in VA in the prior 12 months. And our sample represented women across all regions and VISNs in the U.S.

So our power calculations indicated that we would’ve, we needed a final total sample of 2,300 women. And to get there we ultimately sent out over 8,000 invitations, again to a random sample of women across the U.S. We ultimately reached about 4,100 women. We were able to screen and enroll over 2,700 women and this yielded our final sample size of 2,302 women. And this is an overall response rate of 28 percent and a completion rate of 83 percent. So importantly, participants did not differ from non-respondents in our overall sampling frame with regard to age, race, geographic region, income, marital status or presence or absence of mental or medical illness, really suggesting that our sample is representative of the broader sample of women Veterans of reproductive age who use VA for primary care.

So in the first aim, again our goal is to describe the rates of unintended pregnancy and contraceptive use in this national sample. And we use descriptive statistics to assess first our sample characteristics and then we looked at the annual rate of unintended pregnancy, current contraceptive use and the type of method used and this is defined as, method used in the month of interview as per the standard guidelines. And then this measure of unmet contraceptive need which we defined as the proportion of women at risk for unintended pregnancy who are not using a prescription contraceptive method. And at risk for unintended pregnancy, again, as per convention was defined as women who were sexually active with men in the prior three months who are not pregnant or seeking pregnancy and had had no history of hysterectomy or infertility. And to compare our estimates with the larger U.S. population we calculated age adjusted estimates using data from the 2011 to 2013 National Survey of Family Growth, or the NSFG, which is sort of the gold standard for fertility measures in the U.S.

Okay, this is sort of a guess what's coming kind of poll question. We wanted to ask you all to comment on the rates of IUD use. So IUDs for those who don't know, are intrauterine devices that are sort of newer, long-acting reversible methods of birth control. So the question is: Rates of IUD use among women Veterans who use the VA compared to the general population are: First, lower? The same? Or higher?

Molly: Thank you. So we do have the poll open for the attendees. It looks like people are a little bit slower to respond, that's fine. We've had about a 70 percent response rate so I’ll wait for a few more people to get their answers in. Okay, looks like we've capped off at a good amount. I’ll go ahead and close this and share those results. So it looks like 50 percent of our respondents said lower, 10 percent the same and 40 percent selected higher. So thank you for that and we're back on your slides.

Dr. Sonya Borrero: Great. Okay, so we had hypothesized lower as well. So stay tuned. Molly, are my, oh, okay. So here this table shows our sample characteristics and mean age as you can see is about 35. As we expected we have a racially and ethnically diverse sample. I want to point out that over 56 percent of women had reported a chronic medical condition, almost 70 percent reported a mental illness or diagnosis and 55 percent of our sample reported a history of military sexual trauma using the VA's standard MST questions, screening questions.

So this table shows the annual rate of unintended pregnancy and you can see that the rate of pregnancy per 1,000 women overall is 67. The rate of unintended pregnancy per 1,000 women is 26. And this leads to a proportion of pregnancies that are unintended as 37 percent. So in comparison we see that the rate of pregnancy per 1,000 women in the U.S. population is higher. And therefore the rate of unintended pregnancy per 1,000 women is also higher. But the proportion of pregnancies that are unintended is roughly the same as that which we see in the VA.

This slide shows contraceptive use rates in the total sample. And you can see that 62 percent of women were using contraception in the month of interview and we've broken this down by highly effective methods, moderately effective methods and least effective methods. So highly effective methods are actually listed here and include sterilization, IUDs and implants and are used by 34 percent of women. Moderately effective methods which include contraceptive pills, patch, ring and injection is used by 17 percent. And then least effective methods which include condoms, withdrawal and natural family planning are used by 10 percent of women Veterans. This meant that almost 40 percent of women were not using contraception. And you can see that a large proportion of those women are not using contraception because they are not sexually active, and other women are pregnant or seeking pregnancy and others yet have had a hysterectomy.

So in comparison with the U.S. population estimates we can see that the numbers are relatively similar. The higher rates of not using contraception are partially explained by the higher rates of hysterectomy use in Veteran populations which is quite a bit higher, six-fold. I also wanted to point out in the top red bar that the rates of IUDs and implants are actually much higher in the VA compared to the U.S. population, almost double.

So this next slide shows unmet contraceptive need and again, here we've limited our cohort to women who are at risk for unintended pregnancy. And when we narrow our cohort to this at-risk population you can see that 88 percent are using a form of contraception and 11.5 percent of women are not. Again, I just want to point out that almost a quarter of women at risk for unintended pregnancy are using IUDs or an implant. The bottom estimate is our measure of potential unmet need. Again, this is defined as women who are at risk of unintended pregnancy who are not using prescription contraception, which means they're either using a least effective method or not using any contraception. And here we can see that 27 percent of women at risk are not using a prescription contraception method and, therefore, are demonstrating a potential on that contraceptive need. This is very similar again to the U.S. population that are age adjusted to our VA population.

So in conclusion, over a third of all pregnancies occurring among women VA-users each year are unintended. Over a quarter of women Veterans at risk for unintended pregnancy are not using prescription contraception. And although the rates of IUD and implant use are really encouraging, I think that this data really indicates that further efforts are needed to improve contraceptive service delivery not only in the VA, but in the larger U.S. population.

So we were really interested in kind of diving further into LARC use and provision given the much higher rates than we expected. So among the LARC users, 54 percent of women reported they received their LARC, oh and I just realized, I probably haven’t, I don’t think I’ve defined LARC. So LARC is long acting reversible contraception and this includes both IUDs and implants, they’re lumped together. So 54 percent of women received LARC within VA. Three-quarters of these women received it at the site where they see their PCP and a quarter received them at another VA site. Forty-six percent of women, however, received their LARC outside of the VA. And so we asked a couple more questions which are which patient provider and system-level factors are associated with overall LARC use? And which provider and facility level factors are associated with on-site receipt of LARC?

In this analysis we had two outcomes, so first was overall LARC use and second was on-site LARC receipt. And we looked at a number of different independent variables including patient-level factors, these included sociodemographic characteristics, comorbid conditions, pregnancy history and future pregnancy intention. In terms of provider-level factors we looked at the PCPs gender, whether the PCP provides all or most of the patient's medical care and whether the PCP does paps. And at the facility-level we looked at whether there’s an on-site women's health clinic, an on-site gynecologist, as well as the geographic region and whether the clinic was hospital based verses a CBOC. And then we conducted multivariable logistic regression to determine the adjusted relationships between all of these independent variables and our two outcomes. The models were constructed by including all provider and facility-level factors as well as any patient-level factors that were significant in bivariate analyses.

And so this is the, this forest plot shows the results of the relationship between patient factors and LARC use. And here you can see parity or number of children, greater number of children, history of unintended pregnancy and no intention for future pregnancy are associated with LARC use which is shown in red. In terms of provider and facility-level factors associated with LARC use we didn't see much. The only factor that was significant was that providers who do paps were associated with a lower likelihood of LARC use.

In terms of our second outcome, on-site LARC receipt, again, we did not see many significant relationships. We were expecting that perhaps on-site women's clinic or on-site gynecologist would be associated with on-site LARC receipt, but these were not statistically significant. The only factor that was significant was seeing a provider who does all or most of the patients’ medical care.

So in conclusion, the use of LARC seems to be driven by patient-level factors rather than provider or facility-level factors which we were reassured by and we think this is appropriate. Over half of women using LARC are receiving it within VA, and on-site LARC provision is associated with seeing a PCP for all of their medical care. I'm going to turn it over to Lisa for the second half.

Dr. Lisa Callegari: Okay. Thank you. Let me just turn on my screen. Alright, are we up Molly? Does that look good?

Molly: Looks great. Thank you.

Dr. Lisa Callegari: All right. So as Sonya said I’m going to take you through a bit of a whirlwind tour of the work that our group has done to look specifically at unintended pregnancy risk and contraceptive use among vulnerable populations of women Veterans who use the VA including racial and ethnic minority women, women Veterans with chronic medical conditions and women with mental illness. So Sonya discussed women Veterans of reproductive age are highly diverse with nearly a third African American, ten percent Hispanic and four percent other racial groups including American Indian, Alaska Native, Asian and Pacific Islander. And studies in the general U.S. population outside the VA have shown that Black and Hispanic women are more likely to experience unintended pregnancy compared to White women. And one potential factor contributing to this risk is that Black and Hispanic women have been shown, again outside the VA, to be less likely to use effective birth control methods. And by that I mean again, assume you’ve defined effective methods, the prescription methods like, the pill, patch, injection and also the procedure based methods or LARC methods like implants and IUDs.

So given that reduced access to these birth control methods may be a factor in use trends, we were particularly interested in looking at these disparities in the VA environment where some of the barriers to access may be reduced. So first we looked at racial and ethnic differences in unintended pregnancies among Veterans. And because we have low numbers of women who had experienced unintended pregnancy in the past year we decided to look at women who had experienced unintended pregnancy in the past five years and then restricted our analysis to women who had used VA services for at least five years. And what we found in our multivariable model which was adjusted for age, income, education and marital status was that Black women had a 65 percent increased odds of having experienced unintended pregnancy in the past five years with no significant differences seen for Hispanic women or women in the other category. And as I mentioned, this higher risk among Black women is consistent with data that we've seen in the general population and we're seeing that despite increased access afforded by the VA.

So we then looked at contraceptive use at last sex by race/ethnicity and we found in our adjusted model that Black and Hispanic women were less likely to have used an effective method at last sex compared to white women. And just in terms of thinking about how to link this to unintended pregnancy we, this is current contraceptive use so it doesn't necessarily explain why we see that Black women in particular were more likely to have experienced unintended pregnancy in the past, but it does provide important insight into these racial and ethnic differences in contraceptive use currently in the VA.

So in an effort to start teasing-out potential explanations for these apparent racial and ethnic disparities we have done a series of analyses to look at variations by race/ethnicity in known patient level discriminants of contraceptive use and these include contraceptive knowledge, contraceptive method preferences and perceived discrimination in healthcare interactions.

So one of the first things we looked at was variations in contraceptive knowledge by race/ethnicity, because knowledge about a particular method has been shown to be associated with its use. And this is a graph showing the percent of correct responses to knowledge questions about contraceptive methods by race/ethnicity with the dark blue bars showing the percent of correct responses among White women, the turquoise, Black women and the yellow, Hispanic women. And so, if we look across the chart at the bars for responses to questions about sterilization, IUD use, hormonal contraception and then overall knowledge we can see a pattern where White women have higher knowledge than Black and Latino women. And I’ll point out that these numbers are unadjusted and I don't show the adjusted analyses but we did do them. And if we adjusted for things like age, education, income parity, which are all things we would expect to be confounders, we still saw the same associations. So lower knowledge of effective contraceptive methods like IUDs in particular may be contributing to lower use of these methods by Black and Hispanic Veterans.

So next we looked at how preferences about contraception varied by race/ethnicity. And here we're looking at bar graphs showing the percent of women who felt that each of the contraceptive method characteristics listed below the bars was extremely important to them. And then below we have the adjusted odds of having each preference by race/ethnicity. And so what we see in the first set of bars is that Black and Hispanic women were slightly less likely to feel that method effectiveness was extremely important to them compared to White women and that adjusted difference was significant for Black women. In the next set of bars we can see that Black and Hispanic women were significantly more likely to feel that it was extremely important to them that a method did not contain hormones and these differences were significant in the adjusted analysis. So this finding is consistent with qualitative studies that have found that Black and Hispanic women have greater concerns about the side effects and safety of hormones in particular, as well as greater mistrust of family planning providers. And we don't necessarily know why this is but we can hypothesize that it was related to the history of course, of reproductive policies and medical experimentation on minorities in the U.S. And so the last set of bars shows that Black and Latino women are more likely to say that effectiveness in preventing STIs was extremely important to them. And we know that really only one contraceptive method and that's barrier methods, so male and female condoms prevent STI transmission and those methods are less effective for birth control. So overall we're seeing that these contraceptive preferences among minority women appear to be aligning more closely with the non-hormonal, less-effective methods and less closely to the prescription effective methods which, most of which contain hormones, with the exception of the PARAGARD IUD.

So in a third analysis we looked at the prevalence of race-based discrimination in our sample using the perceived discrimination in health care scale, which includes seven questions asking women about how they were treated in VA healthcare interactions. And what we found is that four percent of White women compared to 11 percent of both Black and Hispanic women and 14 percent of women in other race category reported experiencing race based discrimination. And so when we looked at whether contraceptive use varied by perceived discrimination we found what is shown on this graph. So here we have the percentage of women in this sample using each type of contraceptive method by whether they reported discrimination, which is the dark blue bar or did not report discrimination and that’s the gray bar. And so as we can see, women who perceived discrimination were less likely to use a prescription or effective method and more likely to use a non-prescription, less effective method. We don't see a big difference with hormonal methods or sterilization, but we do see a big difference in use of implants or IUDs which are the LARC methods that Sonya was talking about. And I don't show the adjusted analyses here, but we did find overall that women who perceived discrimination were less likely to be using an effective method and it appeared that most of that difference is, that difference was attributable to less IUD implant use.

So in terms of what's going here, you know, we have cross-sectional data we can't necessarily fully understand this, but we can hypothesize that IUDs and implants are more invasive birth control methods that require a provider both to insert them and require a provider to remove them when women what them removed. So it makes sense that patients who have less trust or feel less respected by their providers may be less likely to choose a more invasive method where they're really dependent on a provider to take it out when they want to have it removed, so they have less control over it.

Okay, so in summary, we found that minority women Veterans were less likely, pardon me, oops, cancel, less likely to have unintended, or sorry, were more likely to have unintended pregnancies and less likely to use effective prescription based contraceptive methods. And that knowledge, preferences and perceived discrimination maybe contributing to these patterns. And in terms of how to draw implications from this research I think we can argue that, you know, we can do better with contraceptive counseling in the VA. And some of the things that we can focus on are sort of core elements of patient centered counseling which include ensuring that women have accurate information about their options so that they can make informed decisions, recognizing that women have a wide diversity of preferences when it comes to contraception and our role as providers is to help women to form, you know these informed preferences, which are based on correct knowledge and then help them align those preferences with their choice. And then we also, you know, clearly need to emphasize that respectful communication is critical to be able to meet the needs of a diverse population that we serve in VA.

Okay, so moving on to women with chronic medical conditions. Studies have shown that women Veterans who use the VA for healthcare commonly have medical comorbidities. And a number of the common conditions that women have such as hypertension, smoking over the age of 35 and migraines with aura are contraindications to using estrogen-containing contraception, which include some of the most commonly used methods like the birth control pill, the ring and the patch. But prior to ECUUN there had been no studies on whether or not women Veterans were being screened for these contraindications before being prescribed estrogen based methods. And there had been no studies looking at the contraceptive use patterns of women with medical comorbidities, who in general have fewer options for contraceptive methods and higher risks of pregnancy related morbidity if they were to experience an unintended pregnancy.

Okay, so now I have a poll question, make sure everyone's still awake. And I’ll pass it over to you, Molly.

Molly: Thank you. So for our attendees as you can see on your screen you do have the next poll question. So we would like to know what are your thoughts? What percentage of reproductive-aged women Veterans have one or more contraindications to using estrogen? Please go ahead and select your response. And it looks like we've already had 50 percent reply and the answers are still streaming in, so we'll give people some more time. All right, looks like we've capped off just over 75 percent, so I’m going to go ahead and close this out and share those results. Our respondents, six percent of our respondents replied ten percent, 27 replied 15 percent, nearly half our audience replied 20 percent, and about a quarter of our audience replied 25 percent. So, thank you to those respondents and I’ll go ahead and give you the screen share again, Lisa.

Dr. Lisa Callegari: Great. Okay, so we're going to answer that question. So this slide shows the estimates from our data on the prevalence of contraindications to estrogen and we can see that about 25 percent, so kudos to the 25 percent of you that said 25 percent, had one or more contraindications and the most common contraindications that we saw as we would have expected were hypertension in 15 percent of our sample, smoking over the age of 35 and in this case a prior history of thromboembolism with clot. And migraine with aura we were able to, we actually linked that to ICD9 codes to make sure we were getting aura, because actually migraines alone are not a contraindication unless there's neurologic symptoms associated with them.

So in this next slide, in this, in this table here we looked at contraceptive use patterns in women with contraindications to estrogen compared to women with no contraindications. And so in the first column of the table we asked among contraceptors, what was the odds of being on an estrogen contraception in women with contraindications verses women without contraindications? And we can see here that women with contraindication were less likely to be using estrogen, however, I don't show this number on the slide but 17 percent of women with contraindications were still getting estrogen, so about one in six. In the second column, we look at contraceptive non-use among women with contraindications verses without. And we can see that women with contraindications were almost two-fold more likely to lack a method than women without contraindications. Which is particularly concerning, as I mentioned before, as these women often face increased risk of morbidity from an unintended pregnancy due to their medical conditions.

So in conclusion, one in four women Veterans at risk of unintended pregnancy have a contraindication to estrogen, which is a high prevalence. And women with contraindications are less likely to be using an estrogen-containing method which is great, you know in terms of making sure that adequate screening is happening. We do have some room for improvement, and it is of note and of concern that a substantial number of these women are still lacking a method of birth control and so this suggests that there are some gaps in care that we can improve. And we do need more research to better understand the decision making and counseling that's happening among medically complicated Veterans.

Okay, so moving on to the last population that we're going to talk about today. We're going to talk about mental health disorders and women with mental health illness. And we're going to start with another poll question, which I’ll pass off to Molly.

Molly: Thank you. So for our attendees, you're going to have one last poll question up on your screen. Go ahead and take just a second to respond to this. Oh, let's get the right poll question up there first, how about that? There we go. So, what is the proportion of reproductive-aged women Veterans who report having been diagnosed with or treated for mental illness? Thirty-five percent? Fifty-two percent? Sixty-nine percent? Or eighty-five percent? The answers are coming in now. We've had about 70 percent response rate and I’ll give people a few more seconds to get their replies in. All right I’ll go ahead and close this and share those results. So the percentages of respondents for the first answer option are 11 percent selected 35 percent; 40 I’m sorry, 39 percent selected 52 percent; a little complicated with all these percentages, just under half of our audience selected 69 percent and seven percent of our audience selected 85 percent. So thank you once again, and I’ll turn it over to you one last time.

Dr. Lisa Callegari: Thank you. And I realized, actually just seeing, hearing Sonya's presentation that she did slip that number in early on. So for those of you who did see it and remembered it, it was there. And so we did see a really high prevalence of self-reported mental illness among women who responded in the ECUUN study. And so 69 percent of women said they had at least one or more mental health condition and the percentages of the specific conditions that women listed are here. So nearly half had depression, half had anxiety, 41 percent reported PTSD and ten percent serious mental illness. And so given this high prevalence we were interested in, you know, in looking at how these conditions were associated with unintended pregnancy risk and contraceptive use in our sample. And surprisingly there's limited data that's been published in the national or in the non-VA literature I should say regarding associations of mental health with these reproductive health outcomes and what, the data that's out there is mixed.

So this slide and this forest plot show the results of some adjusted models that we did, where we looked at whether having a mental health disorder was associated with an increased odds of ever having had an unintended pregnancy. And so you'll see the vertical dotted line at the odds ratio of one and so everything to the right of the line is greater odds. And so in the first comparison at the top we look at any mental health disorder verses none and we can see that women with mental health disorders were more likely to have experienced unintended pregnancy. And then if we look down the chart we can see that that risk doesn't appear to change a whole lot in terms of number of mental health disorders, so it’s really approximately the same. And then in terms of the type of mental health disorder it also doesn't appear to be very different. Just having a mental health disorder, one or more, is associated with that increased risk.

And it's difficult for us to know, you know what's going on here based on our data because again, we have cross-sectional data. We were interested in looking at current contraceptive use even though the time frames don't match, just to kind of understand what's going on with contraceptive use among women with mental health diagnoses currently. And so in this chart we show use of different types of contraceptive methods in women with a mental health diagnosis in the blue bars and women without a mental health diagnosis in orange bars. And so overall we don't see big differences and actually women with a mental health diagnosis were slightly more likely to use a contraceptive method. So this again, because of the mismatch of time frames doesn't really explain what's been going on in the past. We could hypothesize that women, before they entered into care in the VA at a different point in their life may have had reduced access to contraception which is linked to their increased risk of unintended pregnancy. And then once they get into the VA we see that really their access is good and there's not a whole lot of difference. In terms of the other potential things that could be going on we also had cross-sectional data, so we weren't able to look at things like contraceptive adherence, and we know from some studies that Sonya and I did in the, using the VA administrative data that women with mental health disorders appeared, based on pharmacy records to have lower adherence. And so that might also be one of the things that's happening.

So in conclusion, I sort of touched on these first two already and then I think, you know, we're limited again in the conclusions we can draw from our cross-sectional data. And it would be great to have further prospective studies to really understand the role of mental health conditions and mental health symptoms, as sort of another dimension of that in contraceptive use and unintended pregnancy.

Okay. So we've shown you a lot of data today and just so you know, most of it is either published or on track to be published, so please reach out if you would like more information. And just in terms of some of the overall conclusions that we can draw from the ECUUN data, I think the data that Sonya talked about really underscore the fact the VA's efforts to provide comprehensive contraceptive care have resulted in successes such as making LARC available to Veterans and we see that reflected in the higher number of women that are choosing those methods. Despite this, however, over 30 percent of women Veteran pregnancies are unintended and that’s as we, as Sonya mentioned, is similar to the general population so we do have more work to do. And then I hope that we have demonstrated as well that vulnerable Veteran populations do face some increased risks of unintended pregnancy and have particular needs that we would argue can be addressed with patient-centered counseling and care, and that that needs to be a focus going forward.

So in terms of, kind of, the next steps for us as a research team. They include things like thinking about how we can use the data to inform policy efforts to help the VA function as a learning healthcare system. Things like addressing questions about how resources should be allocated to best fill gaps in care. And also I would say that, you know, we think that a lot of this data can help inform interventions that can support VA providers in delivering high-quality, patient-centered reproductive counseling and care.

And I’ll just put a bug into all of your ears about my personal research that I’m doing through my career development award which involves developing a patient-facing tool to educate and empower women in making pregnancy and contraceptive decisions. It's called the MyPath tool. So we're still in development and pilot testing, but stay tuned for future research findings.

And lastly, I would like to just acknowledge as Sonya mentioned, our funding which is Sonya's IIR grant that made all this work possible, the amazing team of programmers and other co-investigators who are listed there as well as the staff. And then I’ll open it up to questions or comments and let Molly take over.

Molly: Thank you both very much. I know a lot of our attendees joined us after the top of the hour too, so I just want to let you know to submit your question or comment please go to the control panel on the right-hand side of your screen, down towards the bottom you’ll see a section called questions. Click the arrow next to the word questions, that will expand the dialog box and you can then submit your question or comment there.

This first one, I’m, let me try and read this it's a little broken up. Interested to know if the younger than 35 mean age had more unintended pregnancies than those over 35? Wondering if age really, if age or youth had an influence on the frequency of unintended pregnancies?

Dr. Sonya Borrero: That's a good question and I’m trying to remember. I mean, we do know from national data that the highest rates of unintended pregnancy occur in women age [phone rings] oh my goodness, sorry, occur in women age 18 to 24. And I can’t remember if we specifically broke it down, but I think that that's a good point and we'll take a look at that. I wouldn't be surprised basically if it is higher. But the overall rate, again, was [inaudible 46:41].

Molly: Thank you. The next question: Can you please talk a little bit about the data collection process and how many questions were in the survey?

Dr. Sonya Borrero: Sure. Lisa, I can take this one also.

Dr. Lisa Callegari: Yeah.

Dr. Sonya Borrero: So the survey was quite long. We used, we contracted with the University of Pittsburgh's UCSUR which is, I’m going to get the acronym wrong. But it’s, it's a center here at the University of Pittsburgh that really specializes in CATI which is Computer Assisted Technology Interviews. And so once we enrolled women they conducted the interviews and they lasted from, anywhere from 45 to 60 minutes and this is a lot of in depth information. And I think there were about 140 items, but there were extensive skip patterns. So, and depending on, kind of how women answered it could be shorter or longer but we did get, you know, extensive histories on pregnancy and contraceptive use. There is another component that we didn’t talk about in ECUUN which is a qualitative component. So we also sampled, purposefully sampled, 200 women for additional in-depth qualitative interviews, and we’re, we are just finishing coding those interviews.

Molly: Thank you. The next question: Did the survey try to tease out whether women were using IUDs for contraceptive or non-contraceptive reasons?

Dr. Sonya Borrero: That's a great question. No, we did not. We asked more detailed questions about kind of where they got them, but we did not ask about non-contraceptive reasons and there certainly are some. Same for, you know, other hormonal birth control. And Lisa, I’m just wondering, do you know off the top of your head in the general population, what proportion of women are using contraceptive methods for non-contraceptive reasons?

Dr. Lisa Callegari: You know, I don't. I mean, I would just point out though that again, we looked at all, most of the, I mean I guess when you looked at, you presented numbers from the whole sample, but then a lot of the data we did was among women who were at risk of unintended pregnancy so they may have been using it for multiple reasons. But you know, we can surmise that because these are women who said they didn't want to get pregnant and were potentially at risk of unintended pregnancy from, you know, from our, from our algorithm of how to, how to categorize them, so you know, they would, we would suspect at least need it for contraception, but we don't know. And I think a lot of women, I mean, just again speaking as a gynecologist, like a lot of women use contraceptive methods for more than one reason. And they choose a method because they want the effect that is non-contra, that involves a non-contraceptive benefit. So I think it would be pretty hard to tease that out. I mean, you might be able to find women who are not using it at all for birth control and using it for something else, but again those would probably not be in our potentially at-risk group.

Molly: Thank you. And the next question. Forty-six percent of LARC users received their care outside of the VA and ten percent of those were referred out to their PCP. Any more information about this? LARC not carried by VA? PCP invoking their private religious views? Anything else?

Dr. Sonya Borrero: We don't have a ton of information. We did ask women who went outside of the VA where they got it, and of the women who responded I think a large proportion actually got it in a military facility. So it may have just been that they got their method before they even, you know, enrolled in VA. Ten percent of providers did refer out and I don't know, you know, if that was based on availability of LARC or a clinic that was closer but not within VA compared to like going to another, you know, hospital-based clinic elsewhere. So we don't have a ton of information about that. But like I said, I think a large proportion of those women may have been getting it before they even enrolled in VA.

Molly: Thank you. The next question: Were there any contraception, contraceptives that were not offered as an option through LARC or the VA in general?

Dr. Sonya Borrero: Meaning, are there methods that are not in the Formulary?

Molly: I do believe.

Dr. Sonya Borrero: Okay. Actually, I mean the VA Formulary is amazing. It does cover, and Lisa tell me if I’m wrong or misstating here, but it, it there are 18 categories of sort of discreet contraceptive methods and I believe VA has, provides at least one if not many options within each of those categories. So, I can't think of any off the top of my head that you would not be able to get in VA.

Dr. Lisa Callegari: Yeah, as far as I know that's correct. I mean there's, there’s new kinds of IUDs that are coming out and they’re, you know, whether or not they're available I think depends somewhat on your facility? But overall, you know, a form of a hormonal containing IUD or a Levonorgestrel containing IUD is generally available. Now again, in some facilites you may not have somebody that can insert it on site, and that’s, that may be explaining some of the reason why people are leaving because they don’t have somebody that's skilled with insertions. But you know, in terms of availability on the formulary nationally, you know, as Sonya said there are options for all of these methods that are on Formulary. Even in condoms, I mean we can, we can give women condoms with a prescription as well.

Molly: Thank you. We do have several people that wrote in thanking you for presenting this research, and that it was very much needed to get out to the field. So I do encourage any attendees to share these handouts with colleagues. While we wait for any further questions I would like to give you ladies the opportunity to make any concluding comments. Dr. Borrero we can start with you.

Dr. Sonya Borrero: Wow. I wasn't expecting that. No, I think this is, we're just, yeah, this is like really exciting for us to be able to present this data. These have been looming questions for a long time as we sort of started thinking about how can we improve reproductive healthcare for women. We just realized that we didn't even have baseline rates of where we are. So we, you know, were hoping and we would love to engage with people and around collaborations of kind of how to use this data to really inform either local or national interventions and we're certainly thinking about things we can do. And Lisa mentioned her CDA and her MyPath intervention which I think will be wonderful, it's patient-facing. And so thinking also about provider-level interventions or even system-level interventions I think this is kind of the next place we're going. And as Lisa mentioned, you know, we have a bunch of papers that have come out this year and that are continuing to come out. And so, we would love for any kind of feedback or thoughts about future next steps as people read them.

Molly: Thank you. And Lisa, would you, do you have any concluding comments you'd like to make?

Dr. Lisa Callegari: Yeah. I would just add to what Sonya was saying. I think we've done a ton of work on the ECUUN data, there's a lot more work to be done. And so I know about, I think about a quarter or more of the, or third of the folks on the call are researchers. So, you know, we encourage you to reach out if you're interested in this work and interested in thinking about some of these questions because we are continuing to ask more and don't have the woman power to answer all of them.

Dr. Sonya Borrero: And also we have a trove of data from our qualitative interviews that we haven't begun looking into, so yeah, we are very open to collaborations if people are interested in this topic.

Molly: Excellent. Well thank you both so much for coming on and lending your expertise to the field and of course, thank you to our attendees for joining us. I’ll just do a quick plug that I believe both Sonya and Lisa, you'll be presenting together for the CDA series in the spring. Is that correcting?

Dr. Sonya Borrero: That is correct.

Dr. Lisa Callegari: That's the plan.

Molly: Well, I’ve locked you in now, it's on the recording. For our attendees please hang out for just a second. I'm going to close the meeting and the feedback survey will populate on your screen. Please do provide us responses to those two questions. We do look very closely at your answers and it helps us to improve our presentations as well as the program as a whole. So once again, thank you everybody for joining us today and that does conclude today's HSR&D's Cyberseminar presentation. Thank you Sonya. Thank you Lisa.

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