Robin Masheb: Good morning, everyone. Welcome to today's cyber seminar. This is Dr. Robin Masheb, Director of Education at the PRIME Center of Innovation at VA Connecticut and I will be hosting our monthly pain call entitled Spotlight on Pain Management.

Spotlight on Pain Management is a collaboration of the PRIME Center, the VA National Program for Pain Management, the NIH/VA/DoD Pain Management Collaboratory, the HSR&D Center for Information Dissemination and Education Resources.

Today's session is Association Between Nonpharmacological Pain, Treatment Utilization, and Opioid Tapering Among Veterans Receiving Long Term Opioid Therapy.

I would like to introduce our presenters for today. Dr. Anne Black is a health services researcher and data analyst at the PRIME Center at VA Connecticut; she's also Assistant Professor in the Department of Internal Medicine at the Yale School of Medicine.

Also with us is Dr. Steven Zeliadt who is a CORE Investigator at the VA Puget Sound Health Care System, Seattle-Denver Center of Innovation for Veteran-Centered and Value-Driven Care. He's a Research Associate Professor at the School of Public Health at the University of Washington. Our presenters will be speaking for approximately 45 minutes and will be taking your questions at the end of the talk; please feel free to send them in using the question panel on your screen. If anyone is interested in downloading the slides from today, go to the reminder email you received this morning and you will be able to find the link to the presentation.

Immediately following today's session, you will receive a very brief feedback form; we appreciate you completing this as it is critically important to help us provide you with great programming. Also on our call is Dr. Bob Kearns, who's the director of the NIH/DoD/VA Pain Management Collaboratory Coordinating Center and Professor at Yale School of Medicine; he will be on our call to take any questions that might be related to policy at the end of our session.

And now, I’m going to turn this over to our presenters.

Anne Black: Thank you, Robin. Hi, everybody. This is Anne Black and I’m happy to join you today with Steve Zeliadt to talk with you and share the results of the recent pilot study that explored the association between nonpharmacological pain treatment use and opioid therapy in veterans receiving long-term opioid therapy. We'll present a brief background of the expansion of the Whole Health services at VA, and then Steve will give an overview of the Whole Health System of Care offered through the Office of Patient-Centered Care and Cultural Transformation. He'll review the services and resources provided through OPCC, and then we'll go into some detail about complementary and integrative health modalities and their use at VA. He'll then share an overview of methods that his group used to identify CIH as part of an evaluation of those services. Next, I’ll present details of a pilot study funded by OPCC that our group conducted in this past year that used methods developed as part of the Whole Health evaluation, which we applied to a new cohort of veterans who are receiving long-term opioid therapy.

Before we begin, we'd like to get a sense of how many of you have used referral to complementary administrative health modalities. And so, I will turn this over for a poll.

Robin Masheb: Alright. Dr. Black, that poll is now open. The question is as a provider how often do you refer patients on long-term opioid therapy to Complementary and Integrative Health services. A, weekly; B, Monthly; C, Several times per year; D, Rarely or never; E, I do not work with patients on long-term opioid therapy; F, Complementary and Integrative Health services are not available to my patients.

And so, answers are coming in quite rapidly. I will just let that run for a few more seconds before we close off the poll. Audience, please remember to hit Submit once you select your choices for it to be recorded. Alright. I’m going to go ahead and close the poll and share the results. So, 19 percent said A; 12 percent, B; 9 percent said C; 6 percent said D; 46 percent said E; and 3 percent said F.

Back to you, Dr. Black.

Anne Black: Thank you. Interesting results and we're happy to have a variety of people in the audience and hope that you'll consider your answer to this question as you hear the data and how your decision about referring to CIH in the future may be different as a result of the data that we present.

So, for some background. In response to the growing opioid epidemic of the early 21st century, an epidemic that disproportionately affected veterans, a number of initiatives were put into place to change the predominant approach to pain management from long-term opioid therapy for which there was limited evidence of efficacy, to more comprehensive approaches that incorporated non-opioid analgesics and non-pharmacological approaches.

In March 2016, the CDC published guidelines for opioid prescribing for primary care providers treating patients with chronic pain. The guidelines stated that non-pharmacologic therapy and non-opioid pharmacologic therapy were preferred for chronic pain and recommended that if opioids are used, they should be used in combination with these preferred therapies. The CDC called for research into the cost-feasibility and cost-effectiveness of nonpharmacologic therapies. Shortly after, in July 2016, Congress passed the Comprehensive Addiction and Recovery Act of 2016, CARA, which suggested augmenting opioid therapy with other pain management therapies and modalities including CIH. CARA called for reduced durations of opioid therapy for veterans and soldiers and expansion of research education and delivery of CIH to veterans.

In 2017, VA clinical practice guidelines recommended a number of risk mitigation strategies for patients on long-term opioid therapy, and recommended tapering long-term opioid therapy when risks outweigh benefits. The stepped care model for pain management was recommended, which prioritized nonpharmacologic pain treatments including complementary and integrative modalities.

These events created the impetus and opportunity for the development and expansion of VA's Whole Health System of Care and the Integrative Health Coordinating Center which scaled up its Whole Health System of Care.

In 2018, a pilot study was begun to evaluate the Whole Health system; it engaged one facility in each of 18 VISNs, and they participated in what is now an ongoing evaluation of Whole Health, focusing on the impact of CIH. In 2020, an evaluation report summarizing preliminary results of that evaluation concluded that CIH had a positive impact on veteran well-being by a number of measures, with preliminary evidence for reduced opioid use among veterans with chronic pain who used Whole Health.

So, now, I’ll turn this over to Steve who will give us a review of Whole Health Services.

Steven Zeliadt: Great. So, this very first slide is a really important slide. So, it is the Integrative Health Coordinating Center, and it is the clearinghouse of all information about CIH being delivered in the VA so there are resources for all the clinicians who are trying to start programs or refine their programs, there's contact information about the different CIH groups in the VA, and resources listservs to sign up for, and then contact information for all the subject matter experts. So, this slide is super important; hopefully, it's clickable on the--it's a SharePoint site and hopefully, it's clickable on the materials that you can download so that you can get it or it's the code--you can't see it there, but it's hard to SharePoint sites. But this is a huge clearinghouse of information that everyone should be aware of, especially those people on that first slide that said the CIH resources are not available for their patients--and I think they're about 3 percent of those respondents.

The next slide is a little bit here for the researchers out there. So, I am Co-Director of the VA’s Complementary and Integrative Health Evaluation Center with Stephanie Taylor, and one of the activities that we do is compile a library of research articles on all the different CIH modalities and there are a few hundred available currently, and this gets updated regularly. And so, you can see from the table of contents, they're organized sometimes by just the CIH therapy and sometimes by the outcomes. And a goal of this talk today is to sort of expand some of the evidence that's available on tapering and patients with LTOT. So, there aren't that many articles on CIH in this population yet, so this is kind of interesting. But this is a great resource and there are links for this also in the materials as well; so, I want to make sure everyone on a call is aware of this library and can go to it and find more information if they're interested.

So, one key piece of information for everyone is this great conference that was held a few years ago, and this was focused on pain. But this is a nice reminder and overview of how all these different nonpharmacological approaches fit together in addition to other things like exercise and ACT and CPT. So, it's sort of a good reminder of how all these modalities sort of fit together and have overlapping focuses.

So, just remind everyone about this article; and then another reminder is that a few years ago, evidence maps were put together by QUERI and these really highlight all the different value of the CIH modality; so, we're not going to get into the huge evidence body on CIH, but just know that it exists and that there are resources that you can reference.

I did want to highlight one piece of work that our group did, so this is by Stephanie Taylor, and there was a survey to the Veteran Insight Panel; and I think this is just a nice reminder that veterans really like using CIH and they really do find it helpful. So, when you ask veterans, they tell you that they want to use it, and that they are using it, they are finding it in VAs, and in the community and that they are really finding it helpful for a variety of conditions on a wide variety of different CIH approaches. And I think keeping this grounded as we get into the data on the long-term opioid patients will be very interesting.

So, I want to pick up a little bit on what Anne said about the Whole Health Flagship Evaluation. So, following CARA, VA got a lot of money--or some money--to kind of expand Whole Health. And so, one site in each VISN was selected--and there's a list of the VISNs--to kind of get a lot of support in launching Whole Health and CIH programs. And this sort of built on some work that OPCC had been doing with demonstration projects and has now continuing to do with additional sites in the learning collaborative too; and that map in the bottom, right-hand corner, kind of highlights where all these different locations are in the timing of expanding all these different services.

But for the focus of this study, we really built on the data that came out of the Whole Health Flagship Evaluation.

And so, there's a lot of details about the evaluation that's available here. Also, this is hopefully clickable on your handouts. So, this is on OPCC's website; the link to it is in the bottom right-hand corner and there's a link directly to the evaluation report which is, I think, 100 pages and lots of appendices about all the different data trying to evaluate the early work for the flagships. There are papers now that are coming out; the peer review process is slow and so they're trickling out and it's going to be--it's great that we're continuing to do a lot of the evaluation work of this great sort of natural experiment and work that the VA has been doing. Also, there's a link to that library of research articles on that website right there as well.

So, one of the key findings of the Whole Health Flagship is that it was really effective at getting veterans connected to different CIH modalities and Whole Health. So, these are a list of the 18 sites, and you can see over time, kind of the early part of when they first got funding and support from OPCC to--not quite to the end of the beginning of COVID, but almost there. There was a huge increase in the use of CIH and Whole Health Services and this slide is among patients with pain. But this is the context for what we're talking about in this LTOT cohort that we're going to tell you about here in a second.

And I also just want to put another plug in that, for some additional work that Stephanie Taylor and I are doing, we're expanding the work not just in the flagship sites, but nationally and so we're looking at all the CIH modalities across the country. And in FY '19, there were over 300,000 veterans who were using different CIH modalities and there were over almost 3 million visits among veterans--and these include visits to community providers for acupuncture, chiropractic care, and massage. And here's a trend just to kind of see the increasing national use.

And what we're going to talk about here in a second is how we identified CIH use in the long-term opioid patients who were in the 18 flagship sites during that flagship evaluation period; but this is a lot of work and finding these CIH modalities is a little bit complicated. Some of them have CPT codes, so acupuncture and chiropractic care are somewhat straightforward to find; and other ones do not have CPT codes. So, there's changing accounting codes, there's health factors, there's clinic names, there's clinic notes. There are location names; and this change--OPCC does help provide a lot of standardized ways of coding these, but sometimes new clinics come and go, and the change with Cerner is also going to affect that.

So, one thing that has been great during this is that there were some incentives by [VIERA] to really make sure that these modalities got coded; and so we do believe that sites, especially in the flagship program, learned how to code for these modalities in the different ways and really got them coded. The bottom here, are sort of the Venn diagrams, I love these. When you dig into the data, you kind of see this is all the different ways where the code show up in the medical record and so for meditation, in order to really capture it, we have to look in many different places.

And now, I’m going to hand it back to Anne to talk about how we identified the LTOT cohort and looked at CIH and different tapering outcomes in that group.

Anne Black: Thanks, Steve. So, we were guided by an overarching question about the feasibility of CIH as an opioid-sparing alternative for pain management; and so we had specific questions about patterns of use of CIH among veterans on LTOT, and the association between CIH and opioid tapering.

In March 2020, we received pilot funding from OPCC to conduct a study to provide pilot data for a larger HSR&D proposal and the study, as you'll see, represents a partnership between groups of researchers at VA Connecticut and VA Puget Sound, and the group was made up of experts in pain assessment and treatment, opioid therapy, CIH informatics, and data analysis. Our aims were to define a cohort of veterans prescribed LTOT for chronic pain at the 18 Whole Health Flagship sites, to describe their utilization in the context of LTOT, to quantify patterns of LTOT tapering, and to assess the association between LTOT tapering and CIH utilization. The study period was a two-year period covering October 2017 to September 2019.

And we identified a cohort of over 58,000 veterans who met the criteria for long-term opioid therapy which we defined as 90 or more consecutive days of opioid therapy allowing for 30 days between refills. So, you can see the black bars on this graph represent the number of veterans at each of the flagship sites who were represented in the cohort; and so we had more veterans in our cohort from Omaha and Salt Lake City, San Antonio, and some other sites. The gray bar shows the proportion or the percentage of veterans at each of those sites who were in veteran care at those sites; so, you can see that a greater percentage of veterans had LTOT at some of these sites. So, for some of the sites who contributed a smaller number of veterans to their cohort, they may have been overrepresented in terms of the proportion of veterans within their site who had LTOT; and which highlights regional differences in prescribing.

The cohort was primarily male, which was anticipated as a group of veterans; their mean age was 64 years old with a wide range in age; a slight majority was married about; 12 percent were black or African American; and the majority were white. In terms of baseline pain, we use the numeric rating scale and veterans had an average baseline pain which was their pain score that was closest to their entry into the cohort of about four, with a wide range and the minimum was zero at the time of cohort entry, and the maximum was 10.

The percentage of veterans whose pain intensity rating was greater than or equal to 4 was 58 percent, and the percent of veterans who had chronic pain, which we defined as having two or more NRS scores of greater than or equal to 4 was 61 percent; 42 of the cohort had a mental health diagnosis with the most common one being depression, closely followed by PTSD, which accounted for about half of the cohort; and 16 percent had a diagnosis of anxiety. In terms of chronic disease, over a third of patients had a diagnosis of diabetes; about a quarter had COPD or cardiovascular disease; and about a fifth of the sample had obesity.

In terms of opioid prescription, we determined prescribed dose by electronic pharmacy records; and we calculated the mean morphine equivalent daily dose for the baseline period, so for the LTO period that was required for entry into the cohort and for each 30-day period after entry into the cohort. Days with no prescription were averaged into the mean morphine equivalent as zero milligrams; and for any 30-day period where there was no prescription data, we assumed that to mean zero milligrams if the veteran was actively receiving care at VA during that time.

We defined opioid tapering in two different ways: one was dichotomous using methods by Fenton and colleagues in a recent paper; in that method, tapering was defined as happening or not and was measured by overlapping 60-day periods. So, to smooth out variability from month to month, we averaged month pairs and took the morphine equivalent for that month pair. So, for example, rather than modeling month by month, we took the mean of Month 1 and Month 2 as our first measure, the mean of Month 2 and Month 3 as our second measure and so forth. So, any veteran achieving a 15 percent reduction from baseline morphine equivalent was considered to have achieved opioid tapering by that definition.

Opioid tapering was also defined by the slope of morphine equivalence over time; and we'll go into more detail about that. So, to begin, you can see that veterans entered the cohort on a range of morphine-equivalent doses. The mean dose was 40 milligrams and the median dose was 22.5, but you can see there was a wide range in that dose. Over times--this is just descriptive data--you can see that morphine equivalent doses tended to decrease, which we interpreted as reflecting the number of initiatives that were in place during the study period. Over 42 percent of the veterans in the cohort at some point during the study period achieved the 15 percent taper that we were targeting.

With regard to CIH use among this cohort about 14 percent of the veterans used any CIH and trends of use mirrored national trends where acupuncture and chiropractic were the most common modalities used and less-commonly used were yoga, tai chi, biofeedback, hypnosis; and the least frequent was guided imagery. The number of times veterans used CIH ranged wildly between only trying CIH one time to using it over 280 times in a two-year period.

In terms of covariates of use, the veterans who are more likely to use CIH in this cohort were female, African American, Hispanic, were of younger age, had a mental health diagnosis or diagnosis of obesity, and had higher baseline pain intensity scores and higher baseline mean morphine equivalent dose. So, these were patients with co-occurring disorders who tended to be young.

We then explored specifically, covariates of modality use to understand which veterans were using which modalities given the distribution of modality use, who was using what, and what did that mean. So, within modalities that were associated with age group, older veterans overall--and those were veterans 70 years and older--were less likely to use CIH at all and were underrepresented or less likely to use almost all of the modalities. The only difference was meditation where they were not specifically underrepresented; but they did not tend to use acupuncture, yoga, tai chi, hypnosis, chiropractic, and biofeedback given their representation in the cohort and among CIH users.

Female veterans overall were more likely to use CIH, and specifically within the CIH, users were more likely to use yoga, tai chi, and meditation. They were not more or less likely to use any of the other modalities.

African American veterans followed a pattern that was similar to what was found in the national pattern; they were more likely than other veterans in the cohort to use CIH at all, and they were more likely to use yoga, tai chi, meditation, or guided imagery. And surprisingly, perhaps, we're less likely to use acupuncture and chiropractic which are the most common modalities used nationally. Veterans with a mental health diagnosis also were more likely overall to use CIH; interestingly, they were more likely to use--within CIH, users were more likely to use yoga, tai chi, meditation, hypnosis, and biofeedback. And you'll notice that they were not more likely to use chiropractic or acupuncture.

So, the types of modality--in thinking about this pattern, the types of modality may suggest that they were referred to CIH to address mental health issues and less perhaps, for pain. Veterans with chronic medical diseases, the ones we mentioned earlier, were not more likely overall to use CIH; but within those who did, they were more likely to use meditation or guided imagery, these passive approaches, and they were less likely than would be expected to use chiropractic. There was no difference in the expected pattern for any of the other modalities.

Among veterans on high-dose long-term opioid therapy, which we defined as 50 milligram or higher, those veterans were more likely to use CIH overall, they were more likely to use meditation, hypnosis, biofeedback and acupuncture, and were less likely to use chiropractic or massage; and there were no differences for the other modalities. For those veterans who achieved a 15 percent LTOT taper, they were not more likely to use CIH than other veterans in the cohort; but within those who did, they were more likely to use tai chi, that was the only modality where their use differed from what would be expected.

We then explored opioid tapering as a continuous outcome, the slope of morphine-equivalent dose over time; and so, in building this linear mixed effect model, our outcome was the mean morphine-equivalent dose for those overlapping 60-day intervals, and we modeled that as a function of time alone knowing that there was an occurring trend toward decreasing doses; we considered baseline morphine-equivalent controlling for that covariate, we included veteran demographics including age African American, status, Hispanic, and marital status, and considered co-occurring disorders, so baseline pain, mental health diagnosis, diagnosis of obesity, diabetes, COPD, or cardiovascular disease.

We then entered CIH into the model as an ordinal variable. So, no use at all, any use but less than four; and then four or more visits, and this was a method that was used in the Whole Health Evaluation that showed some distinction between veterans who used any CIH and those who used more than just a sampling. We then interacted with CIH utilization, each one of these measures to understand the difference in the effective time for veterans who use CIH.

And the result was very exciting; we found what we hypothesized we might find which was that veterans who used CIH and those who used it more frequently experienced faster rates of opioid tapering than veterans who use no CIH at all. So, you can see with all of them starting very closely together at 40 milligrams at baseline, those who used CIH approached a 30-milligram threshold much faster than the veterans who didn't use CIH.

This was a promising preliminary finding for us, it suggested, perhaps, that CIH does facilitate opioid tapering in some way; the finding, of course, raised a number of new questions for us including whether the opioid tapering experience overall was different for veterans who use CIH than those who didn't, whether the timing of CIH in the context of tapering onset might matter; we were also interested in exploring what modalities and what modality combinations might be most strongly associated with tapering.

So, to pursue these questions, we've applied for VA funding to conduct a larger study and we will consider these questions in addition to a number of different questions that emerged in the course of the past year, including as you might expect, the effect of COVID-19 on CIH use  and its effect on opioid tapering.

There were a number of study limitations that we want to acknowledge and which we hope to address in our follow-up study. So, of course, there was no ability to assess cause or directionality between CIH use and opioid tapering given our design; we didn't include details about LTOT history for veterans entering the cohort, so it's possible and likely that many of them were in the process of tapering opioids at the time of entry. But regardless, there was a clear demonstration that those with CIH use did experience faster reductions. There was no detail, as I mentioned, about CIH timing relative to tapering onset, and that may prove to be an important factor in these models. There may be a potentially-omitted variable that accounts for the association between tapering and CIH use like overall motivation toward health; there was no information about CIH referral.

And so, in exploring these patterns of use, we didn't know to what extent that reflected patients' referral to particular services or their own preferences for particular modalities--and to what extent referral might be much broader and the uptake may only be reflected in this cohort. And we, of course, were concerned about our assumption of zero milligram dose for periods when there was no opioid prescription data. It's possible, certainly, that veterans were receiving opioid therapy from outside providers, and that's a method that we are planning to change in the larger study with work from Fran Cunningham in the Pharmacy Benefits Management Group.

So, in conclusion, a minority of the veterans that we included in the cohort who are prescribed LTOT used CIH at all, about 14 percent CIH use was associated with the presence of comorbidities, greater baseline pain, and higher baseline LTOT dose. There were differences in modality that were associated with veteran characteristics, comorbidities, and LTOT baseline dose; achieving tapering, by definition of Stenton and colleagues, was not associated with CIH use, although we did find an interesting association between tai chi use in this group; and CIH use was associated with significantly faster rates of LTOT tapering; and as I said, just very promising exciting preliminary results that we hope to follow up on.

And so, in conclusion, we hope to ask you a follow-up study about referral to CIH services. So, I’ll turn this over.

Robin Masheb: Thank you. That poll is now open. The question is having seen the data in this presentation, how likely are you to increase the frequency with which you refer patients on long-term opioid therapy to Complementary and Integrated Health services? A, Very likely; B, Somewhat likely; C, No change; D, somewhat unlikely; E, Very unlikely; F, I do not work with patients on long-term opioid therapy. Again, please remember to hit submit after you select your choice. And the answers are slowing down, so I’m going to go ahead and close the poll and share the results.

We have 37 percent said very likely; 11 percent said somewhat likely; 8 percent, no change; and 0 percent for somewhat unlikely and very unlikely. And 39 percent for, F, I do not work with patients on long-term opioid therapy.

Back to you, Dr. Black.

Anne Black: Thank you so much. These are really thrilling results; it's nice to see that there was maybe some increased enthusiasm about the potential for CIH, the availability of CIH, and how it might be beneficial for veterans on long-term opioid therapy. So, I think if--if I can turn this over to Bob or Steve for any thoughts--and certainly, we'd be open to hearing whether there were any questions asked during the course of the presentation.

Steven Zeliadt: Great. This is Steve. I think I saw some questions come in the chat, so I don't know; I think Robin's going to assemble those and we'll look at those together. But this is definitely interesting sort of very preliminary data on this unique population and how they're using CIH, and some promising findings about its effect on helping them taper. And it's sort of interesting to really see how the field--the clinicians in the field--are trying to refer and think about how to incorporate CIH in delivery care to patients. So, hopefully, there's some good questions there. And I think Bob mentioned that Ben Kligler also might be on the call, so we'll see who's there, who can get unmuted, and who wants to ask questions.

Robin Masheb: Yes, this is Robin Masheb. That would be great with me if you might be able to find Ben Kligler and unmute him as well. I just want to say congratulations to the researchers; I mean that's it just such a tremendous finding that the veterans who used CIH and who used it more frequently had faster rates of LTOT reductions. Such a difficult thing to be able to figure out a way to look at that methodologically, and I just want to congratulate you. It's tremendous; especially as the VA has such a huge Whole Health rollout, this is just even more justification for how important that rollout is and putting resources in that bucket.

I want to encourage people to please write in with your questions. We do have one question which was whether you were able to look at CIH outside of VA--CIH use or if you have plans for that in the future?

Steven Zeliadt: Well, to some extent, yes. So, CIH that was paid for by the VA, so that is mostly acupuncture, chiropractic care, and massage, those modalities are included and they represent about 40 to 50 percent of this chiropractic care, and acupuncture, and massage that is in this data. So, services that veterans pay for out of pocket or get in a different capacity, we did not have availability for that information. So, in part of the evaluation work with the Whole Health evaluation, there is a survey that's gone out to about 10,000 veterans--not all with LTOT, some with LTOT--and we're looking at that data now to see what the self-report use of CIH that veterans pay for out of their own pocket might be. But we do have--we're looking at those claims for chiropractic and acupuncture charges is very interesting; and in this data, they are included. So, that answers that question.

Robin Masheb: That's great. Another specific question about your study was whether the LTOT included buprenorphine and/or methadone?

Anne Black: It did not.

Robin Masheb: Is that something else you're planning on looking at in future studies?

Anne Black: That's a great point. We have written into our proposal that we're interested in understanding how buprenorphine used to support veterans whose taper from opioids might moderate the effects of CIH in some health outcomes. So, we are considering buprenorphine in our next study more as a moderator.

Robin Masheb: I was also curious whether--the bar graphs were so interesting looking at the differences between age, and race, and mental health, and medical complexity, medically-complex patients. As one of your CIHs, were you able to look at things like CBT or mental health services?

Anne Black: That's a great question; that's something that we're working on now and really trying to nail down the methods of doing that. And Bob, I see, just unmuted himself--just meeting with a group to discuss these methods and explore that. I don't know if Bob wants to speak to that.

Bob Kearns: Well, yeah, I think just a few reflections. Before I forget, I really want to say thank you to Anne and Steve for this presentation and for their work on this project; it's really terrific work, it's highly complex and challenging. And to the question that you're raising, Robin, about mental health or even more specifically, CPT, I think we heard this from Anne when she was talking about the apparent association between mental health diagnoses and use of CIH broadly. And then the issue being it's possible that they're using CIH for their mental health condition as opposed to their pain. I think that it really is quite challenging to try to make the attribution of use of virtually any CIH to a specific condition. And although, of course, if you're studying pain, that would be of interest--or in this context, trying to understand use of CIH in the context of long-term opioid therapy, presumably for chronic pain management.

It would be nice to understand more about that attribution and so, we are trying to pursue that. However, I have to say that it may be in a way, that pursuit may be inconsistent with some of the basic fundamental premises of even the Whole Health initiative and the use of these CIH services, the bottom line is--I think it's often been said that it's better to think about the person--or, in this case, the veteran--with chronic pain who also has multiple other co-occurring conditions, including, we understand, relatively high rates of mental health co-occurring conditions, but also other chronic diseases. And by the way, other disadvantages people--including veterans--are disadvantaged in terms of variety of, let's say, adverse social determinants.

So, the bottom line maybe it's more important to understand the use, and maybe it'd be helpful to understand what the patient thinks they're using it for. But in fact, it's probably important to understand that regardless of that attribution or the setting in which they're receiving it, who made the referral, what the initial intent was, that it's still to the advantage of individuals to pursue these alternatives broadly speaking, because of the potential health promoting benefits of these CIH approaches regardless of their conditions.

The other important point about even what Anne said, is I think there are some data evidence--even published data from other sources, thinking of Mary Jo Larson and others working at Brandeis University with, I think, mostly DoD data who have discovered that people use different CIH approaches in the context of their medical conditions, and that people with, for example, mental health conditions are more likely to use, say, psychological approaches for pain management like CBT than maybe people without those mental health conditions. It may be that they initially even were turned on to CBT or received CBT, or some other psychological treatment for something other than pain, but found it's the benefit of that approach in the context of their efforts to enhance their adaptive pain self-management.

So, I think it's all very interesting and complex and it's worth the pursuit, but I also want to qualify it by saying I do think that--and I’d be very interested in other people's perspective about this--but I think we're we understand the potential health promoting benefits of these CIH approaches, regardless, maybe, of their intent or attribution that's made for their use. And I think some of the data that we're finding reveal that.

Robin Masheb: Another question we have was it implied that a faster taper is better than a slower taper? I’m not sure a faster taper is necessarily better; to me, more important than the rate of taper is whether or not the taper is sustained over time. Any thoughts about that?

Anne Black: Yes, that's a great point. Right, rate of tapering, in and of itself, is not inherently good or bad--and faster tapers can pose greater risks and so, we were concerned about that. We were less concerned about reporting that result given that the taper--at least the mean taper--was quite gradual; you could see that it wasn't vastly different from the slope of veterans not using CIH. But that's a very good point and in our next study, we do intend to look at significant adverse events occurring in the course of tapering and whether that differs by CIH use. But thank you for that question.

Steven Zeliadt: Yeah, and I think the point that Anne is making too is that we don't have data on the veteran experience about tapering; and so, if CIH is supportive and the experience overall is better for veterans or not, and I think that's an important next step as well.

Robin Masheb: Yeah, I’m assuming. We have a couple of different questions related to the clinician who is potentially driving the tapering and the referrals to CIH. One of them is, "Can you tell by your data, or do you have access to data where you can see who is driving the desire to have the opioid tapering?" And then also, "You have characteristics about the patients who are using CIH and the bar graphs looking at the differences on race were very compelling, do you know anything also about the race of the clinicians who are making these referrals and some of those interactions--or has your group started to discuss that kind of thing and how potentially you can maybe look at that or do something about that in the future?

Steven Zeliadt: Ann, maybe I’ll take this one. We've tried to look at the referral pathways, and the kind of data in the HER is not reliable for that. It just doesn't--we can't really reliably understand how these things happen especially the community care consults. They just sort of get entered and maybe it's the ordering provider--it's just a little bit messy. I mean I think this is a hugely important question about how the referral happens, is it patient-driven, is it a particular provider that's referring; are there the culture and the different tapering clinics or other sources? I think that's really important.

Another issue is just sort of access and availability. I mean this study was done in the flagship sites where there was definitely increasing availability, there was a lot of hiring of different CIH providers that made CIH more available; but, of course, there are rural patients and traveling, and there still are challenges to availability in many places. And now, there's a lot of tele CIH being delivered, and tele tai chi, and other modalities; so, with COVID, there's just been a revolution in how that happens. So, it's all very interesting.

Ann, did you have anything else to say about that?

Anne Black: Thanks, Steve. That was a great answer; I don't have anything more. Were you asking, Bob, I didn't hear the first part of that.

Steven Zeliadt: No, I was asking Ann--or if anyone has any more thoughts about it, but I think it's going to be very interesting to see how COVID has shaped this and opioid use during COVID and CIH supporting or not supporting tapering; so, lots of questions out there.

Robin Masheb: And then maybe my final question would be, for me being a clinical trial researcher, I see so much potential for this about being able to target special subgroups that are maybe low utilizers of CIH for tapering purposes, and curious about whether you're starting to have conversations about that, how this can potentially be pilot data for starting to develop interventions that target high-risk groups--or maybe not high-risk groups, but groups that could potentially benefit from greater uptake of these types of treatments.

Steven Zeliadt: Yeah, I think that very first polling question was really interesting; I think it was about 3 or 4 percent of the providers on the call who said they didn't have the availability of ordering for CIH. So, I think that needs to be addressed first. I think that OPCC is really working hard to make sure CIH is available to all veterans in some form through community care or some form of CIH. But I think figuring out which patients are most likely to benefit from which therapies is a big, important question in making it available and helping fill gaps when it's not being offered and it could be.

Robin Masheb: Lots of work ahead, but this was really incredible. Thank you so much to our presenters for the work that you're doing, and for sharing it with our audience. My apologies for not being able to get to everybody's questions; but I think that speaks to how important and interesting this work is and how much more there is to be done that we weren't able to get everything done in the hour.

Just one more reminder to hold on for another minute or two for the feedback form; if you're interested in downloading the PowerPoint slides from today, you can go to your reminder email that you received this morning for the link to the presentation. Slides from all of our past sessions can be found by searching on VA cyber seminars archive, and you can use the pull-down menu to get to the spotlight on pain management.

Our next cyber seminar will be held on Tuesday, April 6th and we will be sending registration information out around the 15th of the month.

I want to thank everyone for attending this HSR&D cyber seminar and we hope that you'll join us again.