ORPP&E Webinar

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Session: ORD Research Updates: COVID-19 & Mental Health

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Dr. David Atkins: Hi, welcome. We’re delighted to see so many people on this call which I think is the fourth field call we’ve had to talk about COVID-related research. The aims of these calls is really to engage a larger audience of people who are working in the same area. The goal that Rachel Ramoni has is to try to encourage more communication and collaboration across services and among researchers within each service. We hope that this kind of communication will lead to identifying areas of potential synergy, will help you get a sense of the field and the research that we’re funding, promote possible future collaborations, and generally just engage a level of interest in important topics related to COVID. So I’m delighted to be joined by my colleagues Dr. Terri Gleason from Clinical Science Research and Development and Karen Siegel who is the Deputy Director for Rehab Research and Development. And four speakers who will be talking about individual studies. If you’ll go to the next slide.

So I will be giving a brief overview of our efforts in this area. And then we’re going to hear from Jennifer Loftis, Alan Teo, Bryan DeBeer, and Michael Green and the slide indicates which services have been funding them. And then we’re hoping to leave at least half an hour for discussion and questions. We hope you’ll use the chat function to send in your comments and questions that will allow us to moderate the discussion more effectively. Next slide.

So we know that mental health impacts of COVID are an important concern. We know that nearly half of all Veterans cared for in the VA have preexisting mental health conditions and we’re all aware of the many ways that COVID and the disruptions caused by the pandemic might adversely affect their outcomes. A recent report from MMWR looking at patients, looking at the population outside the VA reported that somewhere upwards of 40% of the general public were reporting adverse effects of the pandemic on their mental health. We’ve done a number of things to try to jumpstart our research in ORD. HSR&D which I direct and CSR&D put out a solicitation for rapid response projects. These were short, very rapid turnaround proposals to provide nine months of funding to either supplement ongoing work or to standup a rapid project to look at the impacts of COVID to develop pilot data to explore existing data. You’ll be hearing from Jennifer Loftis about the project that was funded by CSR&D. On the HSR&D side in two rounds of funding we funded nine projects that are looking at various aspects of HSR&D. And on the rehab side they put out a solicitation for supplements to existing projects. They got, funded nine studies where they supplemented ongoing work to collect information on COVID-specific outcomes and look at the impact of ongoing treatments on mental health outcomes during the COVID pandemic. Next slide.

The aim of all of this is to realize that in a problem as multifaceted as mental health there are many different dimensions that one could look at. And we are all holding different pieces of the puzzle or as we often say different parts of the elephant. The hope is that by bringing, sharing more of this work and engaging a larger population of people interested in this we can start to build a better picture of what is going on. And so I’ll walk you through just a few slides that are outlining the different populations, outcomes, and interventions that are being addressed in the 19 studies that are underway. Now I want to note that I am not including many other studies that may be funded at the Biomed side that may be relevant to neurologic and mental health effects of COVID. And I’m not counting all the other projects that may not have applied for additional funding but are learning important things about the COVID pandemic. And we hope that through this conversation and ongoing work we will continue to build a more complete picture of the impacts of COVID. And more importantly how to better respond to similar outbreaks and what is likely to be an ongoing year or more of recovery from this pandemic. Next slide.

So this is just a picture of the different ways that COVID may impact mental health. This, we constructed this framework in part informed by the different projects that we’ve been funding. We’ll be hearing a little bit about the direct effects of infection on the neurologic response and mental health response in our CSR&D study. We know that many patients are already suffering the direct effects of anxiety specifically about COVID. But increasingly we’re looking at the indirect effect of the pandemic and the health system response to that pandemic which has led to restrictions on activities and schools. Many of you are all dealing with the challenges of sending kids back to school in your district. Disruptions to employment and income. Restrictions on your socialization and contacts which can lead to isolation. And then these lead to measurable changes and intermediate outcomes that we think are important mediators of mental health. These are increasing stress on the basic needs of income, food, and housing. Disruptions to medical care, the VA’s I think done a commendable job and has been ahead of the curve in many ways on delivering telemental health. But many aspects of care, nonetheless, have been disrupted and patients may voluntarily interrupt care even against our advice. And then just a disruption to the larger social support that our patients depend on to maintain their mental health whether it’s access to social services, contacts with their neighbors and family, visits from home support services, and peers. And then all of these are things that we can measure with a variety of clinical and behavioral outcomes. Understanding this sort of, this causal pathway then allows you to think about places you can intervene in the pathway to try to improve outcomes. Next slide.

So as we look at the different populations studied we have some studies that are looking at the general population. Most of our studies are looking at patients with pre-diagnosed mental/behavioral health conditions, either depression, PTSD, substance abuse. And a number of our studies are targeting on specific populations that we think are vulnerable to these interruptions in care and isolation including older patients, those who are homeless, or in residential rehab or those who are living at some distance. Many of our studies are observational but a number of them do include interventions and ability to look at the effect of those interventions they include outreach, peer support, different delivery of psychotherapy. The project in residential rehab is looking at how those facilities responded and policies they’ve put in place. We’re looking at self-help and telehealth. And then two of the rehab studies that were already in the process of studying specific interventions including TMS and Topiramate for PTSD, provide the ability to look at how those things might affect a subgroup in the COVID-era. Next slide.

In terms of mediators and outcomes. I won’t read through all the list of outcomes. One advantage I think we have in the mental health space is the field has done a good job thanks to the National Research Action Plan of standardizing around common measures. So I think all of our studies are using common measures for PTSD and depression. And we’re working to try to standardize some of the measures in the other outcome space. There’s a lot of interest specifically in standardizing around measures of isolation and loneliness and in terms of the degree to which care has been interrupted. Next slide.

I may be, I’m coming to the end here. So we have convened a workgroup of mental health investigators of these funded 19 studies. This is the voluntary convening. We hope some of you with active funded work might be interested in joining this. We’ve found it useful just to share information to look at different instruments and measures that are available to [unintelligible 00:10:28]. There’s been a lot of interest surfaced in that group in understanding the mediator’s mediating role and better ways to measure that. And there’s interest in just learning from these studies as we start to get early results. Sharing those to get feedback and so that investigators can incorporate what other people are learning, into how they look at it. Another issue on the table that we haven’t really reached closure on is are there ways that the community can prepare our clinical partners for preparing for future possible reemergence of COVID and possible increase in restrictions. We’re all entering various phases of opening up. If we have to halt or reverse some of that are there things that we can learn to help identify who might be most adversely affected by that. And that, I think is it. Next slide.

So with that I’m going to turn it over to Alan Teo, actually sorry to Jennifer Loftis to talk about her study. Take it away, Jennifer.

Dr. Jennifer Loftis: Hi. Thank you. Can everyone hear me okay?

Dr. David Atkins: Yes.

Dr. Jennifer Loftis: Great. Great. Well good afternoon everyone and good morning for my West Coast colleagues. I’m Jennifer Loftis. I work at the VA Portland Healthcare System and Oregon Health and Science University which is connected via a skybridge. You can see the VA is pictured here on a cloudy Portland day. The VA COVID-19 rapid response project I’m working on is titled Inflammatory and Mental Health Sequelae of COVID-19 in Veterans. And the research is being done in collaboration with Co-Investigator Dr. Alan Teo who will be presenting next. Next slide, please.

The mental health consequences of COVID-19 are largely unknown. By the year 2030 mood disorders are expected to be the second leading cause of global disease burden. And the risk of attempting suicide is significantly higher in individuals with a diagnosis of a mood disorder. And Veterans may be at higher risk of depression and suicide. Importantly Coronavirus seropositivity is associated with a history of mood disorders particularly depression. Is the echo a little bit better? I got a message there’s an echo. I will\_

Dr. David Atkins: Sounds good here.

Dr. Jennifer Loftis: Okay good. I’ll proceed. So we and others have shown that inflammatory factors likely play a role in the pathogenesis of virus-induced depressive symptoms, anxiety, and cognitive impairments. When COVID-19 infects the respiratory tract it can cause mild or severe disease with consequent release of pro-inflammatory cytokines particularly interleukin one beta and interleukin six. Inflammatory factors also implicated in depression and other neuropsychiatric symptoms. Next slide, please.

This figure is from a recent review and illustrates the potential neuropsychiatric effects of COVID-19. The SARS-Coronavirus-2 enters the body through various routes and causes systemic and tissue inflammation. Systemic inflammation compromises the blood-brain barrier and allows proinflammatory factors to enter the brain. It is also thought that the virus may cross the blood-brain barrier at the level of the circumventricular organs or through retrograde axonal transport via the olfactory bulb and infect the brain which can induce glial cell activation and increase the production and secretion of cytokines and other proinflammatory factors. The combination of systemic inflammation hypoxia resulting from respiratory failure and neuroinflammation may trigger or exacerbate psychiatric diseases. And this review was intended to draw special attention to the psychiatric aspects of COVID-19. The authors state that minimizing their relevance claiming that sometimes an abnormal reaction to an abnormal situation is normal behavior, could be an unforgivable mistake. Next slide, please.

So the objective of this project is to conduct a prospective pilot study that will allow us to begin to determine the inflammatory and mental health consequences of COVID-19 in Veterans during the pandemic and within the current research constraints. It’s hypothesized that Veterans who test positive for SARS-Coronavirus-2 and experience COVID-19 disease symptoms will have higher levels of proinflammatory cytokines. And report greater severity of mental health symptoms at baseline and follow-up visits as compared to Veterans who did not test positive for the virus. And to those who test positive but do not experience disease symptoms. Next slide, please.

So aim one of the project will assess baseline biomarker and mental health status. The strategy is that at the time of COVID-19 testing we will determine symptoms of depression, anxiety, fatigue, and cognitive complaints using self-administered rating scales. Electronic medical records are used to obtain relevant demographic and medical data including suicide risk. Once a sufficient number of participants have been enrolled in the study the levels of peripheral inflammation will be evaluated in plasma by immunoassays. We will also measure blood-brain barrier integrity by plasma 100 calcium-binding protein B or S100B. This is important because Coronaviruses are capable of infecting the central nervous system, damaging the blood-brain barrier, and inducing cytokines that contribute to neuropathology. In the central nervous system S100B is primarily concentrated in glial cells in the brain. So leakage in the periphery could suggest a damaged blood-brain barrier. We have used this marker in a previous study of Veterans with Hepatitis C viral infection. An example of the results are shown in the figure here. In this study participants with and without active alcohol use disorders were evaluated over time to assess changes in alcohol use and inflammatory factors. And we found that participants with high S100B levels, greater than 12 petagrams per mil had significantly higher timeline follow-back scores or higher alcohol use at baseline as well as four weeks, compared to participants with lower S100B levels suggesting that blood-brain barrier damage may increase the risk of neuropathological consequences within the context of chronic Hepatitis C viral infection which could also have implications for COVID-19 infection. Next slide, please.

So this table summarizes the procedures that are going to be completed. We administer a brief questionnaire battery which includes recommended self-administered rating scales to measure depression, anxiety, fatigue, and memory complaints. I’ve highlighted in red text box here examples of just two clinical and behavioral variables, depression and anxiety which are being assessed using these same measures as Dr. Atkins mentioned. You know they’re standardized across several other VA-funded COVID-19 research projects. We also will measure, collect blood to measure S100B as I described and a list of inflammatory factors which are in a table on the next slide.

So this is a list of immune factors to be measured. We will primarily use multi-sex speed-based assays for this. The list includes C-reactive protein, interferons, interleukins, some key chemokines, and other factors. I selected a combination of pro and anti-inflammatory factors based on their shared associations with neuropsychiatric symptoms and Coronavirus infections. But as we learn more about COVID-19 this list may change some. Next slide.

So the second aim of the project is to assess biomarkers and mental health status post-COVID-19. So Veterans that were tested for COVID-19 from aim one will be asked to provide a second blood sample and to complete the same self-report measures that were done at baseline. We will collect data from participants who do and do not test positive for COVID-19 once the infection has resolved, if applicable. And for patients who do not test positive or develop disease symptoms we will collect follow-up data at comparable time points. Immunoassays will be conducted as I described for aim one. And the results will be used to identify changes in cytokines and other factors that impact mental health. It is our hope that identifying the mental health sequelae of COVID-19 can lead to better understanding of how to target prevention, evaluation, and treatment of neuropsychiatric symptoms in Veterans with future viral infections. Next slide, please.

So I just want to thank my collaborators. I mentioned Dr. Alan Teo, Co-Investigator. Colleagues in infectious disease at the Portland VA, Doctors Villamagna and Chris Pfeiffer, Dr. Pfeiffer. Also Dr. Annette Lopez who works in emergency department at the Portland VA. And our research team including Mr. Firsick, Ms. Shirley, Ms. Hudson, Ms. Winters, and Mr. Call. Also locally I want to thank the Portland VA, I’m showing pictured here with blue skies now. The Veterans and those who participated in our research. And of course VA Central Office for the funding that supports this work.

And the next slide just shows my contact information for those who want to reach out anytime to talk more about this work.

And that is all I have for now until we have questions.

Dr. Alan Teo: All right. So I’ll move on, this is Alan Teo speaking and I’m sorry you guys can’t see me, but if you can, you can picture a smiling face here. I’m very pleased to join you, to have you together today to have colleagues like Dr. Loftis. And to have a project, and here you can see the name of the project that has been funded by HSR&D recently for COVID-19. So thanks to Dr. Atkins and his team for the invitation and the opportunity to do this research. You get another picture of Portland I suppose here. We’ll move on to the next slide.

And I’m speaking on behalf of a wonderful research team. Here you can see the co-investigators listed as well as a number of members, the members of an expert panel that I put together as part of this project. And I’ll explain more about that. But we have a wonderful array of folks who are both here in the Pacific Northwest, as well as located across the country people that are working with VA populations as well as outside of the VA too. Next slide.

Wonderful. So the first piece of background that’s important is just to understand the concepts of what is called Caring Contacts, Caring Contacts. So Caring Contacts is a sort of deceptively simple intervention. The concept is that sending brief messages that are caring but at the same time non-demanding, sending those messages can be helpful to patient populations. The target population that Caring Contacts has been tested in and evaluated has been patients who are at elevated risk of suicide. And these are folks that typically have had recent contact with the health care system, for instance, they were admitted to the psychiatric unit and are now discharged. The basic theory behind Caring Contacts is that it can reduce suicide risk by enhancing feelings of social connectedness. And you can see in Dr. Atkins’ slides sort of how that fits in as a potential mediator to the model that we’re using. Let’s move on to the next slide.

And I’m going to illustrate on this slide a couple of different examples of Caring Contacts. This is a postcard on the left here from one of the early studies that was conducted in Australia. Very low-tech at some level. You can see a picture and if we can slide, go back to this previous slide, very low-tech on the left, image of a dog. On the right you have a more recent example that comes from Kate Comtois’ work at the University of Washington. And this work has been done in military populations using text messages. Now we can move onto the next slide.

So those are two examples of Caring Contacts that are part of a larger literature of about 10 different studies spread across five different countries. Each of these studies have used different modalities of delivering the Caring Contacts that you see listed here. Most of these studies have looked at the efficacy or effectiveness of Caring Contacts. And the majority of them have found reductions in what we might call hard or objective suicide-related outcomes, suicide deaths, attempts, suicide ideation over multiple years of follow-up. There has also been work, as I eluded to in military populations, Veteran populations. Studies have looked at the feasibility and acceptability of Caring Contacts to Veterans for instance. And there has been that recent study that I mentioned led by Kate Comtois that has shown improved outcomes related to suicide. Next slide, please.

And beyond sort of the research context in sort of an implementation context, Caring Contacts is I would say undergoing some sort of selected implementation in VA settings. Here you can see an example of a postcard that I think has been used in what is called the REACH VET program for those that are familiar with that aspect of suicide prevention in the VA. There’s some other implementation going on in settings like emergency rooms as well as the Veterans Crisis Line. So Caring Contacts has been studied, there is selective implementation at this point. And let’s move onto the next slide.

This is going to lead into sort of where this project picks up which is thinking about Caring Contacts in the COVID-19 context. And I would even broaden that a little bit to other disasters, thinking ahead sadly as we’re facing wildfires and things like this in the Pacific Northwest where I am. There’s no shortage of natural and manmade disasters. When you think about disasters and challenges like COVID-19 it’s going to be no surprise that there’s the risk for significant psychosocial negative sequelae from exposure disasters. And these, this sort of development of psychosocial problems, psychiatric disorders, et cetera can develop over time. I think of this as having sort of a lag in time that doesn’t necessarily occur in the acute phase of the disaster. But can develop over time. There’s already evidence of increased rates of depression and anxiety in the context of COVID-19. There is prior literature that suggests suicide may rise after disasters. And tied into all of this is a larger research, body of research that demonstrates the importance of social connections to many aspects of our physical and our mental health and even our longevity. Next slide, please.

So with that context, with this background really the key premises of this project are two-fold. First my, the first premise if have is that Caring Contacts can be adapted and tailored to the context of COVID-19. And the second is that this adaptation which I’m calling Crisis Caring Contacts. Crisis Caring Contacts can increase a sense of social connection among Veterans who are at risk for these negative mental health consequences from COVID-19. Next slide, please.

In terms of how these, research project is set up it is essentially a planning grant and there are three specific aims. I won’t read them off to you because you can read more quickly than I can speak. But the basic thrusts of these aims are to bring smart people together, tailor and adapt this intervention, and then use this adapted intervention to think about patients who, you know what kind of Veterans might we want to have receive or who in what population might we want to test this Crisis Caring Contacts intervention. And then we also want to develop some materials and instruments that would be helpful/necessary for conducting a randomized controlled trial of Crisis Caring Contacts. Next slide, please.

This gives you a little bit more of a visual picture of the workflow for this project. So translating some of these aims into specific deliverables and activities in the project. And you can see working, it’s not exactly chronological, but essentially working from left to right. Next slide should just highlight the first step here which is convening an expert panel.

I won’t cover all of these elements but I’m going to briefly touch on a couple of them, the work that we’ve done so far. So if we go to the next slide.

We have brought together a panel that I eluded to earlier on of 10 or 11 folks spread across the country. We’re meeting via Zoom as you can see here and this illustrates just one of our discussions. We’ve had several meetings at this point and we’re working our way through this product, process of adapting Caring Contacts. Here in this slide you can see us discussing who might be the person to send these messages to the Veterans. We’ll go to the next slide.

And this expert panel again consisting of people with experience as Veterans as well as people that have content expertise in suicide and Caring Contacts itself in health communication, things like that. This group of intelligent folks are using a planning guide to adapt Caring Contacts. And then this next slide, we will see an example, a snippet of this implementation planning guide.

This is a planning guide that has been developed and used by Sara Landes and colleagues in Little Rock and the Behavioral Health QUERI that is based there. Again I’m illustrating one example of the implementation planning guide that we’re using here showing our discussion about who should administer Crisis Caring Contacts and we’re documenting as we go. This is sort of a living document, so we’re documenting different decisions or discussions, action items as this expert panel meets over the course of several months. Next slide, please.

And then in this middle set of tasks in our workflow I’m going to briefly touch on cohort construction as well as data collection instruments. So go to the next slide.

This, it looks like we may have missed one slide inadvertently in this slide deck. But we have had a number of discussions in terms of the team, in terms of what kinds of, how to exactly define the cohort that we want to look at. We’ll see if that slide is still available. But on this slide it’s illustrating the actual Caring Contacts messages. And again so this is one example of one message that we may want to use. This Caring Contacts intervention is designed to be sent as a series of messages typically over the course of a year. So this example that you can see here illustrates some of our decisions and preliminary ideas about how to address the salutation to the Veteran. And exactly what kind of language to use. We can move on to the next slide.

I think, yeah so for today’s purpose I was, I think we were also asked to identify some challenges and key questions and what I’ve laid out on this slide are actually some of the challenges I think really relate to where to go with this work. So as I mentioned earlier on this is a planning grant. So I’m, one of the things that our group is thinking about is what kinds of Veterans we want to provide this intervention to. Socially isolated Veterans are a key target population. But there are challenges in terms of how we can use available administrative data such as the data that’s contained in the Corporate Data Warehouse to really identify folks that are isolated. And then the other questions two, three, and four that you see here on the slide are really my very patent callout to folks on the call. If you are a operational partner, if you work at the VISN level, if you are a VA site that is interested in this type of work and potentially being involved in evaluation of a novel intervention like Crisis Caring Contacts I would welcome contact and discussion with you. And I think that is the last slide, but let’s double check.

I think I wrapped up, yep it does. So thank you all.

Dr. David Atkins: Thanks. Thank you, Alan. I’d like to turn it over to Dr. Bryan DeBeer. I want to just advise people, please type in questions into the chatbox as you think of them. That way they’ll be there when we get to the discussion section to sort of kick it off. We’re especially interested in hearing from any of our clinical partners who have questions that they’re struggling with on the clinical front. Bryan, take it away.

Dr. Bryann DeBeer: Thank you so much. Good afternoon.

Dr. David Atkins: Bryann. My apologies. [laugh]

Dr. Bryann DeBeer: Oh, oh no you’re fine, you’re fine. Good afternoon. I’m so excited to be here with all of you. And I would just like to say that it really has been amazing to see VA’s response to the pandemic on so many levels, particularly within the research sphere. So I, am the Director of the VA Patient Safety Center of Inquiry-Suicide Prevention Collaborative and I’m a Clinical Research Psychologist at the Rocky Mountain MIRECC for Suicide Prevention. I’m also a Visiting Associate Professor at University of Colorado. Next slide, please.

This is just a quick disclaimer and acknowledgment slide. The views expressed are my own and I would like to acknowledge VA HSR&D for the funding for this project, thank you very much for that. Next slide, please.

And I would like to say that and I’m sure all of my fellow presenters feel this way as well, but these are some very complex issues we’re discussing and we could really probably talk about these things for hours and hours but we all only have a short time with you. So I’ve really tried to keep this brief but I could really go on about all of this for a very long time. You know just kind of thinking through all the issues that we’re facing with this pandemic and its effect on mental health. We already know that suicide is unfortunately a very serious problem within our Veteran population. And we also know that many Veterans experience mental health disorders particularly those returning home currently from OEF/OIF. And we also know that social support impacts mental health and suicide risk as well. Next slide, please.

And so we know that social support exerts the significant buffering factor when we think about individuals with PTSD or depression, we know that social support really buffers against that increased suicide risk. And now we’re facing a situation due to this pandemic where we have had mandatory quarantines, mandatory self-isolation due to the virus. And also some very significant social distancing practices. However the effects of this social isolation are not known. Concurrently as other presenters have mentioned this pandemic has brought a number of stressors; things like unemployment and illness in those who have experienced COVID-19. As well as food insecurities, financial difficulties. We know separately outside the pandemic that those things are associated with mental health issues and suicide risk. But the effects of all of these cumulative things on mental health and suicide risk in Veterans are currently unknown. And so I think there are a lot of concerns regarding Veteran mental health and well-being and how it’s being affected by the pandemic. And also these social distancing practices are likely influencing things like a sense of belongingness, loneliness, they’re producing low social support. And we know that these are factors that are associated with suicide risk. Next slide.

So the aim of my project is to investigate the impact of changes to one’s social support system due to social distancing, on mental health and suicide risk. As well as to examine moderators of this association. And we are hypothesizing that decreases in the connectedness of the social support system due to social distancing will be associated with greater severity of mental health symptoms and greater suicide risk. And that both of those will be moderated by modifiable factors. I’ll get to treatment factors, I’ll talk about that in a little bit. And something that we’re doing here that has not been done as often in mental health research is we’re using a social network analysis. And I’ll talk about that a little later in more detail. Next slide.

So this will be a cross-sectional survey study. We’re recruiting 200 Veterans who are enrolled in the VA via mailed letters. We’re oversampling for mental health diagnoses and we’re also oversampling for positive COVID diagnosis. ORD has pulled together a repository of individuals who have had a prior COVID diagnosis who are within the VA system and we have been able to access that and pull names from that and so thank you very much for that infrastructure. That is really helping us a lot. And then they will go through a one-time 90-minute online survey. Next slide.

And so one of the main things we will be doing is a social network analysis. And we’re partnering with Visible Network Labs who is a leader in this type of work and they’ve developed an application called the Person-Centered Network. And Veterans will go, they can access that via an internet link. They’ll receive a unique identifier when we send them the mailing and they can take that unique identifier and put it into website and fill out the survey which includes a social network analysis. And in that analysis what we’re going to be doing is identifying personal support networks, so who is in their network and what is that type of relationship. We’ll be looking at also trust dependency support importance and how everyone is networked together. And we’ll also be asking them about changes that have occurred during the pandemic so how has their social support network changed during the pandemic. And this analysis produces scores that we will later use in subsequent analyses. Next slide, please.

We will also be looking at other factors like social support, belongingness, loneliness, and expressed emotion. I’m particularly interested in expressed emotion which has primarily been studied in severe mental illness. But I do expect that things like mandatory quarantines may have increased expressed emotion and I’m interested to see how that changes. Next slide. And, I’m sorry could you go back. Expressed emotion is one of our modifiable treatment factors. So we do know that expressed emotion can be changed through intervention so we will be looking at that as a moderator of these analyses. Next slide.

We’ll be looking at mental health symptoms like PTSD and depression and also suicidal thoughts using the Beck Scale. As well as current alcohol use. Next slide.

And we’ll also be trying to understand their experiences of COVID-19 through several questionnaires that ask about their experiences of having COVID-19 if they did have it, the impacts of COVID-19 on themselves and their families. But also more broadly just with the epidemic-pandemic impact inventory what types of stressors or changes that they experienced through the pandemic. And then we’ll also be asking about COVID-19 stressors in terms of those experiences that are family. Next slide.

And so in terms of modifiable treatment factors we’ll be looking at social cognition, psychological inflexibility, and as I mentioned before expressed emotion. And we’re particularly homing in on these factors because we know that we can modify them through different interventions. And so I do expect that people who have low social cognition, high psychological inflexibility, high expressed emotion they probably are not faring as well in terms of mental health and suicide risk. And so we will be examining that. So we will look at these as moderators between that association of changes in their social network and the outcomes of mental health and suicide risk. Next slide.

We’ll be looking at some other factors also such as functioning, stress, trauma history, resiliency. And we’ll also be asking some open-ended questions regarding experiences of the pandemic as well. Next slide.

We’ll also be accessing administrative data as well regarding their use of VHA care, physical health diagnoses, mental health diagnoses, suicidal thoughts and behaviors, prior and current mental health treatment, service connection, and COVID-19 diagnosis and treatment. Next slide.

In terms of our planned data analyses. We’ll be conducting a social network analysis and accounting for changes in the social network that have occurred. And looking at things like trust and dependency, support, and networking. As well as conducting a structural equation modeling using those scores from the social network analysis and conducting those moderation analyses that I discussed before. And then we’ll also be conducting qualitative analyses on the open-ended questions as well. Next slide.

So potential challenges. So I think that for us, so something that is interesting about how we do this is, for compensation, Veterans have to be vendorized with us and we’re collecting a national sample. So we expect that many of them will not be vendorized at our VA and what the means is that they have to give us their banking information. And I’m wondering if people will be suspicious of that. The mailings will come from the VA and we will have information in there to let them know that this is a legitimate study but I’m wondering if people might be hesitant to participate because of that. A colleague recently conducted a similar study in terms of the methods at our site and she did get a 20% response rate however she actually didn’t pay them. And I’m wondering if we actually might have more challenges because we’re paying them. So we’ll, so we’re going to see how that goes. Next slide.

So we expect to better understand the impacts of COVID-19, stressors, and social distancing practices on Veteran social networks, well-being, mental health, and suicide risk. And we hope that this information can mobilize a response to the pandemic. Next slide.

Okay, great. Thank you so much, everybody. I really enjoyed speaking with you today. I’m really excited that collectively we’ve been able to have a really strong response in terms of our research to the pandemic. And thank you so much for your time.

Dr. David Atkins: Thank you, Bryann. So our last speaker is Michael Green. Again reminder, please enter your questions for any of the speakers in the chatbox. Michael?

Dr. Michael Green: Thank you so much. Can someone confirm I’m audible first?

Dr. David Atkins: Yep. Loud and clear.

Dr. Michael Green: Good. So thank you to the organizers, thank you to the previous speakers. I get to represent actually a rather large group involved with this project. The names of the people who have taken the lead appear on the title slide that’s Amanda McCleery, Derek Novacek, Eric Reavis, and Jonathan Wynn. We are based in a REAP it’s a Rehab R&D Research Enhancement Award Program on Enhancing Community Integration for Homeless Veterans. And we’re from the VA Greater Los Angeles. Next slide.

So you know what everyone has said, you know started out this way. This is really different. This is unprecedented. We’ve never experienced something like this in terms of an assault on social fabric that’s as complete and as long-lasting as we’re encountering right now. And so everyone has acknowledged that and if there’s no way to sort of overstate the importance of that. But I think our question is what does that mean for people who are already having trouble with community integration? That are already vulnerable. What does this additional assault do? And people have already pointed out and David did in the introduction, the pandemic might be unique but the stressors are still going to keep coming for these individuals and we want to understand how to better buffer vulnerable Veterans to future waves, future pandemics, future challenges. Next slide, please.

So the aim here is to examine the impact of the COVID-19 pandemic on two vulnerable populations; recently housed Veterans meaning that they were homeless within the past year but they’re now housed. And also Veterans with psychotic disorders. And we looked at four types of factors this is heavily overlapping with previous speakers, clinical psychiatric symptoms, community integration or in the psychosis world we call it functional outcome, potential risk and protective factors, and socioeconomic factors. We do have our baseline data so I’ll give examples of the data from each of these. But we have a rather long battery so I’m just going to be very selective in what I show for the purposes of today’s presentation. Next slide, please.

So here’s the timeline. On March 19 California issued its stay at home order in the evening. On the morning of the next day I was busy. We were in contact with our program officer Shirley Groer at Rehab R&D trying to get additional funds for the REAP to start this project. I was also having a lengthy discussion with our IRB coordinator because we’d never you know consented anyone remotely or paid people remotely. Then we trained staff, we got the project approved in mid-May and started enrollment the next day. And baseline data collection then was finalized just in the last couple of weeks. And the acknowledgment really goes to Rehab R&D for special purpose funds into the REAP and the National Center on Homelessness Among Veterans which responded very quickly to help us out with this project. Next slide, please.

So we are doing everything remote; consenting, paying we use gift cards, the interviews they are based on interviews on average about two and a half hours split up over a couple of different calls. So we have Veterans who recently have, using a HUD-VASH voucher, Veterans with psychotic disorder, and our control group has no history of homelessness and no history of psychosis. We used administrative databases to identify individuals. We also identified individuals who participated in our previous study. We then searched CPRS for contact information to confirm they were eligible. We called over 950 people who were potentially eligible. We have a whole cohort of clinically experienced interviewers, 10 of them that were conducting the assessments. And as mentioned we’ve recently completed baseline. And we have several waves of follow-up interviews that are being planned. So on the next slide.

You see who we have baseline data on. And this includes 75 of the controls, 76 recently housed, and 81 of the psychosis. On here you see just the basic demographic which includes they’re in their 50s, not surprising they’re disproportionately male. We have a racial distribution that we’re happy with and as well as an ethnic, Hispanic/non-Hispanic distribution that we’re fairly happy with. So this gives us license to start looking then at racial factors as well as they might be moderators of the effects. Next slide.

So in terms of virus exposure there’s simply not a lot. You know some individuals self-quarantined, some had a close other with COVID, but only 3% were diagnosed with COVID. So the virus itself is not really the focus of this study because most of the participants were not, did not have the virus. Next slide, please.

So here’s the data. And let me orient you to how we’re doing, again this is selective I’m just picking a few of the variables to demonstrate. We did these assessments in May/June but we asked people what it was like for them on a subset of the items back in January, so pre-COVID. And so what you’re seeing here in the darker colors is the baseline assessment with the time of the phone interview. And what you’re seeing in the lighter colors is the participants’ responses to how things were pre-COVID. And what you can see and this will come as not a great surprise depression is substantially increased and we have a large effect of time and depression. But we don’t have an interaction with time and group. Also for anxiety we have a large effect of time, people are reporting more anxiety, not a surprise. And we also have a group effect in that our recently housed group is just overall feeling more anxious than the other groups. Could I have the next slide?

In asking about on an OCD scale contamination we have a huge effect of time, if we didn’t see that we would worry about our measure. So this confirms the concerns about an OCD symptom like contamination comparing pre-COVID to these baseline assessments. And, next slide.

And here we have loneliness which, this is the UCLA loneliness scale which is commonly used. And we do have an increase in loneliness. Loneliness often tracks as dysphoria and so that’s not entirely a surprise that it would track with depression. And we do have a group effect in that the controls have less loneliness than the recently housed and psychosis groups. So we are seeing a time effect that also that this recently housed group seems to be struggling a little bit more than the other groups. The next slide we’re going to now move to the question of functioning for the community integration.

And here in terms of family networks there is no effect of time. The control group is more connected. We would expect that but there’s not an effect of time. Even with social networks there isn’t effect of time in that there’s a decrease in the recently housed and psychosis, it’s an overall group, an overall time effect. It’s just not very impressive. It’s less then we were expecting. And again this is only at baseline. We don’t know what’s going to happen going forward. Other indications of community integration are seen in the next slide.

Where we have work functioning which shows a big effective group as we would expect no effect of time. And again in the independent living no overall effect of time. We have some little wobbling in terms of the recently housed going up a little bit. The psychosis going down a little bit. But by in large these are not huge effects on community integration or functioning in contrast to what we’re seeing in the clinical psychiatric effects. The next slide.

This shows vulnerability and protective factors. This is a large group, I know the previous speakers considered some of this. We considered how stress, how the individual views how stressful their life is, their level of perceived stress. Defeatist beliefs are sort of beliefs about giving up, feeling like you’re not going to be successful, you’re not going to enjoy things, it’s not worth trying. These are motivational beliefs. And maladaptive coping would be how do you choose to manage your stress and there’s better ways to do it and worse ways to do it. And you know drugs and alcohol would be considered the maladaptive way. And what you can see here is that the recently housed just score higher on these, there is no baseline level here. We didn’t ask them to estimate, I’m sorry these are baseline, there is no pre-COVID level on this. This is just the scores that occur at the time of the interview assessments. But the recently housed just are showing more of a struggle with the perceived stress, the defeatist beliefs, and the maladaptive coping. The psychosis group some with the defeated beliefs, we know that from the psychosis literature so that part’s not surprising. But it’s the recently housed that seem to be having a bit of, more of a struggle. And if we were to follow-up on that maladaptive coping we might expect to see more drug and alcohol use. And in the next slide you’ll see that as well.

So here you see the pre-COVID and the baseline estimate. These are called waffle graphs and if you just don’t want to focus on the details just see which groups have more red in terms of alcohol use and cannabis use and which ones have less green. And it is the recently housed. They have, they’re self-reporting more alcohol use both pre-COVID and baseline. There’s not a big change with COVID but they’re reporting more than the other groups. And you’re seeing the same pattern with cannabis. The next slide.

Is a food insecurity. And that falls into two different subcategories. One, are the Veterans concerned about difficulty in obtaining food? And like the previous slide you can say which, you know where’s the biggest red and the smallest green. And that’s in the recently housed. And that’s a significant difference. So there’s more concern about obtaining. And the next question is are they actually, is this creating anxiety? Are they actually anxious about having enough food? And in the next slide you’ll see that the recently housed are in fact more anxious.

There’s more distress about anticipated food shortages. And again that’s the larger red in the recently housed and the smaller green. And that’s as much data as I’ll show for today so I can go to the conclusion slide next.

So in summary, and again these just our baseline data so far. All three groups, and you know we have, this is a 230-ish subjects. So you know it’s, we’re just, we feel like we have a pretty good assessment at baseline and we’ll learn a lot more as we go forward. All three groups are reporting they’re clinically impacted, that includes more depression, more anxiety, more loneliness, and concerns about contamination. But among the groups the recently housed group seems to have greater features of distress, anxiety, and loneliness. More likely to experience food insecurity including just being anxious about it. And they have more perceived stress. They have more of these defeated beliefs, these kind of like I’m not going to have fun, I’m not going to make it. And more of these maladaptive coping strategies. The next slide continues the summary.

Which is that compared to the clinical psychiatric impact the changes in community integration actually are less than we were expecting. We thought we’d see more but on the other hand we don’t know what we’re going to see in the next couple of months. And a picture could change dramatically. We’ll be doing these assessments every couple of months. Socioeconomic changes are problematic especially for the recently housed and they could get worse over time, we don’t know that but we’re worried about it. And the focus here has been on this cross-sectional data but the longitudinal data are really necessary for what we want to understand which is the trajectories of these factors over time. The longer-term consequences, the predictive, like can we have a reliable predictor of symptoms or community integration some months out. Do we have information in the risk and protective factors? So our ongoing work is follow-up quantitative interviews for all participants. I mentioned these are the rounds of follow-up. And we folded in qualitative interviews for a subset of participants. We have a number of people in our center who are experts at qualitative interviewing and so we’ll hopefully get more information that could be used to sort of generate new avenues and get more texture on this quantitative data.

And the last slide represents the thanks for the listening. The thanks for the organizing. This is the group that is doing all the work. And I’ll stop here and thank everyone.

Dr. David Atkins: Great. Thank you so much. Terri Gleason unfortunately had to leave but I wanted to see if Karen Siegel from the Rehab service wanted to make any comments or lead off the questions. And then after that I guess we can turn it over, Carol will you be reading through questions from the chatbox?

Carol: Yes, I will.

Dr. David Atkins: Okay. Karen, are you on?

Karen Lohmann Siegel: I am. Thank you, David. I think just one comment that I’ll mention, just a couple of things. That in addition to providing supplements to projects we also have added a special emphasis area into our standing Merit RFA and our SPiRE RFA which is our pilot projects. And that specifically mentions COVID. So I’d like people on the webinar to be aware that that opportunity has been out, it was out for our Summer Merit review cycle, it’s out now. We’ve pulled in letters of intent for our Fall SPiRE cycle and people should expect to see it in our RFA coming out for our Winter cycle. So people should look for that as well. So there will be ongoing opportunities for people to come forward with ideas related to mental health and COVID impacts on mental health. So wanted people to be aware that those opportunities are out there in our RFAs on an ongoing basis.

Dr. David Atkins: Thanks. So please enter any questions you have into the chatbox and Carol if you want to, again by reading any questions that you’ve gotten for the panelists.

Carol: Sure. Okay. Can you see the screen?

Dr. David Atkins: So you’re going to, yeah that’s great. This really could be for anybody. Does anyone know, we realize there’s a lag in reporting of suicide data through the National Death Index, but does anyone know about suicide data in the VA in the past six months? Have we been seeing a change? Any of our MIRECC colleagues able to comment on that?

Dr. Bryann DeBeer: This is Bryann DeBeer. I don’t think that, I mean in terms of the VA data we don’t have the typical VA suicide data out yet. And I’m not aware of anything in the literature but I think that things are moving pretty rapidly. So hopefully some more information will be coming on that soon. But others may know more than I do on that.

Dr. Michael Green: This is [inaudible 01:05:21] don’t, you’re asking nationally, and I have no, this is Michael, I have no knowledge, but they say that in the suicide item we included in our depression scale we had very few people above the threshold for concern. So they’re endorsing depression, they just weren’t [inaudible 01:05:39] in this subset of people that [inaudible 01:05:42] recently housed or psychotic.

Dr. David Atkins: Thanks. So another\_

Dr. Alan Teo: This is Alan Teo, I’m not\_

Dr. David Atkins: Go ahead Alan.

Dr. Alan Teo: And I was just going to add it’s not exactly again, they’re not suicide rates given the challenges around collecting that, but there was a study that has just been published in JAMA open network that looked at national, a national survey, nationally representative population of civilians. And that showed increased depression symptoms. I believe they used the PHQ-9 and I haven’t read the paper to look at, you know in terms of the, whether they dug into the item on suicidality but that would be my one thought there. So some evidence of increased depression rates since COVID. And suicidality would be worth looking in.

Dr. David Atkins: Am I correct that, at least I thought there have been some lay reports about increases in overdose rates? Is anyone aware of that, separate from suicide but has an indication of increase in drug use? So not hearing any answers to that. The second question was do we know any, what proportion of COVID-positive VA patients have PTSD and traumatic brain injury? So the latest figures I think are that the VA has somewhat upwards of 50,000 patients who are COVID-positive within the VA. And I think something like 10,000 hospitalizations. But I have not seen anything on breaking down the comorbidity among the patients who have been infected. Does anyone on the panel have any more information? Great. Well let’s move on and if anyone has answers they want to type into the chatbox, feel free to do that and we’ll keep an eye on that. This is a question for Bryann, why not use AUDIT or AUDIT-C rather than the CAGE which would allow you to link it to national data we have from our alcohol screening in the VA?

Dr. Bryann DeBeer: This is a great question. We’re trying to keep this as brief as possible. We are asking a lot of questions so we were really trying to look for the questionnaires that had the fewest questions. But we’ll be able to track the AUDIT from the record as well. So we’ll also have that.

Dr. David Atkins: Great. And the next question Bryann is also for you. You mentioned you have questionnaires about COVID and maybe you can remind us the questions you are asking which are about I think COVID impact on the patients. And the questions were, were these measures you had to create or were you able to find some existing measures or what kind of data did you have to create

Dr. Bryann DeBeer: So I relied on the PhenX toolkit primarily to pull those measures and obviously since COVID-19 is a new situation they have varying levels of validation. You know at the same time it’s what we have to be able to try to understand what’s occurring with COVID-19. So I did not create any of those measures myself. They were all pulled from the PhenX toolkit.

Dr. David Atkins: And that’s a toolkit maintained by NIH?

Dr. Bryann DeBeer: Yes, that holds common data elements. So hopefully other studies will be using them as well, yes. Mm-hmm.

Dr. David Atkins: Great. So moving on for, also for, these questions were probably typed in order so I’ll try to make sure I don’t give all the questions to Bryann but let’s move through. How long do you think it’s going to take to complete your questionnaires, Bryann?

Dr. Bryann DeBeer: Ninety minutes.

Dr. David Atkins: Ninety minutes, okay. And then the next question was, I thought you said it was an internet questionnaire but I may be confusing you\_

Dr. Bryann DeBeer: Yeah.

Dr. David Atkins: \_with another. And how, what hurdles did you face in being, figuring out, getting permissions to administer an internet questionnaire? Are you using, where is the data going?

Dr. Bryann DeBeer: Yeah. This is\_

Dr. David Atkins: Is it a vendor or?

Dr. Bryann DeBeer: So this is a great question. So this was a challenge but I’m always up for a challenge especially when it’s in service of helping reduce suicide risk in Veterans. So other people at my site had kind of done various versions of these methods. So somebody had done an internet survey, somebody had done data collection with an app. And so I talked with these other investigators and I was able to kind of take all the methods that they had used. And then I also spoke with Eric Kuehne [phonetic], he was very helpful at VA Palo Alto and Pablo Bryan [phonetic] my program officer was also very helpful and supportive in trying to get this figured out. So we have a contractor collecting our data. And so at first, when we first put in this grant it was through an app where the participant would have to download it. In that time the contractor has taken to, it’s technically an application because of the way it analyzes the data, that’s what my contractor indicates. But the Veteran will now be able to do it just via an internet space link. So we’ll give them a link and then they go to a landing page and then they type in their specific code, which is a randomized code. I didn’t want it to be a numerical code in case somebody got a number off and then they accidentally went into another person’s survey. So what I’ve learned here is that the key, there are a couple of keys in being able to do this, number one we’re collecting no PHI, zero PHI. And the contractor is not collecting IP addresses because that is considered PHI. So we’re not asking them their birthdate or anything that would be related to PHI. We’re telling them in open-ended questions do not put in any identifying information so that basically we’re not collecting any PHI from them. The second major thing is that it does not become VA data until we collect it from the contractor. So while the contractor is collecting it, it is not VA data. When it comes into our possession it becomes VA data. And so we were able to work out all of these hurdles successfully. And if anyone is having challenges with this I think probably many, many studies are having challenges with this during COVID, please feel free to reach out to me. I’m happy to help. I’m sorry it’s just my email address in my presentation but I’m, it’s just my name Bryann.DeBeer@va.gov. And I’m happy to talk with anybody.

Dr. David Atkins: Great. The next two questions are about compensation. And one was about using Visa cards or, and the other question was just have other people had this problem? And I can already answer that question, yes they have. [laugh]

Dr. Bryann DeBeer: [laugh]

Dr. David Atkins: So, but could, remind me Bryann did you say you’re sort of in the middle of trying to work out that problem? Or have you found a solution for it?

Dr. Bryann DeBeer: Well, so that was one of the challenges that I’m facing. We were asked to discuss kind of the challenges that we’re experiencing on the research and I mean, I think that Visa gift cards would be a very brilliant idea. Unfortunately at my site we’re not able to do that. And I know that there are different ways of getting funding you know like if you’re running a grant through a foundation sometimes you can get gift cards. Or if you’re running your grant through the university you can get gift cards. But at my site with VA funds I can’t get gift cards unfortunately, so we’re just going\_

Dr. David Atkins: I don’t know if Molly\_

Dr. Bryann DeBeer: \_to have to do this. Sorry, go ahead.

Dr. David Atkins: I don’t know if Molly Klote is on the call from our research protections group, from ORPP&E. You know basically what changed was when they cracked down on sort of cash, due to concerns about control. And the getting each patient vendorized so that we can actually transfer money to them is obviously impractical. But I haven’t heard anything updated as to any, more recent solution. If anyone does, they might type into the chat function. I’m afraid we’re, I think we’re still, I don’t know if you’re all muted. But so we will, I will take that question back to our people, to Dr. Klote and ORPP&E to see what, if there’s any updated information on more practical solutions for reimbursing customers.

Dr. Bryann DeBeer: Thank you so much.

Dr. David Atkins: Some questions for Dr. Green. How do you do consenting and are you doing consenting online? And I can report that for COVID we do have a contract to allow DocuSign for studies that involve more than a hundred patients. That allows online signatures and you do not need a wet signature, that’s something very recent that Molly’s group has been able to do. It’s specific to COVID and because it requires work on our end to actually create the documents that then can be delivered electronically we are restricting it to studies that at least have a hundred patients. So to Dr. Green, Michael how are you doing it?

Dr. Michael Green: Okay. So yeah, I mean I think the fact is that there’s a lot of variability from station to station on this. I mentioned briefly that the morning after the California lockdown I initiated two lines of communication. One was to Rehab R&D to see if we could get supplemental funding, the other was to our IRB. Because if we couldn’t get some way of remote consenting we didn’t think that this would be practical.  Our IRB was very flexible, very thoughtful. We discussed it over a period of weeks.  We developed a remote consent form that we would read to the participant and document their agreement but we never got wet signatures. And we didn’t have to make them go online.  I guess there was a feeling that our IRB, which I don’t know if historically was very flexible, but in the context of Covid become very collaborative in trying to problem solve this.  We did everything remote and we didn’t have any participants come to our building.

Dr. David Atkins: Great. The next question which is not on the screen anymore was about problems about HIPAA. And so they, what I referred to with DocuSign would also, does also take care of HIPAA as well. And the contract with DocuSign I think is from ORD. But I would say that the best contact person for any of those questions is Molly Klote, K-L-O-T-E our director of ORPP&E. Next questions, I think for some reason I’m not seeing 14 or 15, I don’t know if it’s a display issue. Carol can you read them off?

Carol: Sure. The next question is for Dr. Green. How confident are you in the retrospective way you asked about change, i.e., do people tend to see things in the past as better?

Dr. Michael Green: You know that is, that is the methodologists dream question. The, [inaudible 01:19:47] concern. You know we feel that within a few months [inaudible 01:19:55] reporting of things like [inaudible 01:19:57] and functioning are reasonably good. I would say the better answer to this question is the fact that while we see dramatic changes in clinical psychiatric symptoms this retrospective see COVID [inaudible 01:20:11] we just don’t see them in [inaudible 01:20:13] so the fact that we get a bit of a different issue suggests that it’s automatically the halo effect. But this is an excellent caveat to our data.

Dr. David Atkins: Thanks. So I see this is a question for Bryann, how are you measuring EE? And you’ll have to remind me what EE is, perceived criticism using the five-minute speech sample. Or someone is suggesting five-minute speech sample has been used.

Dr. Bryann DeBeer: I am using Jill Hooley’s measure, the perceived criticism measure which is a self-report. So we don’t have to get a speech sample which would be difficult using these methods. And we are going to be able to integrate that into the social network analysis. So we will have people answer those questions related to each person in their network as well. So we’ll be able to see who is giving them that perceived criticism.

Dr. David Atkins: Great. There is a response up there about the payments. And I think that’s consistent with what I said, is you can pay people but because of the requirements of VA for tracking it requires patients to be, complete paperwork including providing their social security number and bank account to allow the money to be transferred electronically to them. And that’s a big barrier for a lot of patients. So it’s not that you’re not allowed to pay patients it’s just that the requirements for doing so are cumbersome since they’ve cracked down on things that are harder to track and audit. But we will look for any updated information about what’s allowed or any more practical solutions. Carol …our direct express card, yeah I think those also still have to be linked to a bank account and require that paperwork. But as I said we will track down that information and I will ask our colleagues at ORPP&E to post something where you can find it on their site about instructions. Are we, we are nearing the end Carol do we have more questions coming in?

Carol: That was the end of the questions.

Dr. David Atkins: Great. Well I want to thank everybody for this. And in terms of follow-up actions if you, we will try to provide some more information. If there are people who have active projects that are going on in this space and you’re interested in joining the working group we have on mental health measures, please contact Emily Evans and that is Emily.Evans1, let me just make sure that that’s correct. And or contact me David.Atkins@hsrd.gov. It’s Emily L. Evans but I think her email is Emily.Evans1@va.gov who is helping to manage that workgroup. We are, depending on the demand, we can’t guarantee that we’ll open it up to everybody but the game of all of this is to promote communication and collaboration. So in principle the more the merrier. But I want to thank everybody. We’ve, really delighted by the number of people who turned out. When we started it looked like it was at 150 and I’m sure it grew from there. And thanks to Carol and everybody for, and Soundia for organizing this Cyberseminar. So stay safe, all our West Coast colleagues I hope you are staying safe from the fires. And thank you all for doing this important work.

[ END OF AUDIO ]