Rani: Hi, everyone. Thank you so much for joining today’s HSR&D cyber seminar. My name is Rani Elwy, and I’m a Core Investigator at the Bedford in Boston HSR&D Center of Innovation, known as the Center for Healthcare Organization and Implementation Research, or what we call CHOIR. I’m also one of the principle investigators of the Bridge Query Program, which is one of the programs across the country that is working with operational partners to implement evidence-based practices in various settings.  
  
As part of the new, renewed query programs, each query program that’s at a Level 3 needs to have a rapid response team. In this past year, there were three query programs across the country that the rapid response team worked with the National Center for Health Promotion and Disease Prevention, or NCP, which was the group that led the vaccination rollout across the VA healthcare system as well as the rest of the VA and with different federal partners, such as the FDA, HHS, and Capital Police and various other groups.  
  
As part of our rapid response teamwork, we had a wide-ranging group of people in our team working on different studies related to COVID vaccine hesitation and acceptance. So, I’m really pleased to introduce Guneet Jasuja from our rapid response team who worked on that. Dr. Jasuja is a core member of CHOIR. She’s also an Assistant Professor in the section of General Internal Medicine at Boston University School of Medicine. She’s going to be talking about one of our projects, which was the survey project that we did in our rapid response team working with NCP.  
  
I’m also really pleased to introduce Dr. Taona Haderlein, who is a core investigator with the Greater Los Angeles VA. There are other projects in addition to those that are happening with the query rapid response team projects across the VA in terms of veteran’s vaccination and hesitancy. Dr. Haderlein is going to be presenting work that did in partnership with VEMEC, which is the Veteran’s Emergency Management Evaluation Center, which is also located at Greater Los Angeles.   
  
Dr. Haderlein will be presenting on the VEMEC work, so you’ll get to hear two examples of rapid projects done in conjunction with important VA operational partners of the National Center for Health Promotion and Disease Prevention and VEMEC. And so, Dr. Jasuja will be giving her presentation first, followed by Dr. Haderlein. Now, I’m going to turn it over to Dr. Jasuja. Thank you.

Dr. Jasuja: Thank you, Rani for the great introduction, and thanks for joining, everyone. On behalf of the Bridge Query Rapid Response Team, which Rani graciously introduced via a survey of health experience of patients, or the SHEP team and the \_\_\_\_\_ [00:3:16], I’m really excited to present our work on examining attitudes and intentions of U.S. patients regarding COVID-19 vaccination.   
  
Before Taona and I present, we’re really interested in knowing how many of you in the audience are involved in COVID-19 research. The oral responses for these questions range from yes, no, prefer not to answer, and I’ve handed it to Rob to open the polls and request you all to weigh in, please.

Rob: Thanks, Guneet. For some reason, I’m having a hard time opening this poll question. I’m sorry. Could you move ahead, and then I’ll let you know when I figure out what the problem is? I apologize.

Dr. Jasuja: Sure, no worries. Before I present and discuss the findings of our work in more detail, I wanted to begin by presenting two definitions of vaccine hesitancy, which are highly pertinent to our work. Among these two definitions, you’ll see there’s some overlap as well. The World Health Organization defines vaccine hesitancy as delaying acceptance or refusal of vaccines despite availability of vaccine services.   
  
Vaccine hesitancy is complex and context-specific, varying across time, place and vaccines. It is influenced by factors such as complacency, convenience, and confidence. In an article which came out in *The Atlantic* last year around this same time, Derek Thompson, who is the Staff Editor of *The Atlantic,* interviewed doctors and researchers. What he heard from them was that vaccine hesitancy isn’t one thing. It’s a portfolio. It’s a constellation of motivations, insecurities, reasonable fears, and less reasonable conspiracy theories.

Rob: Dr. Jasuja, I did figure out what the problem with the poll is if you’d like to run it.

Dr. Jasuja: Sure. So, do you want me to go back to the slide, the poll slide?

Rob: That would be great. Thank you. The poll is open now. Go ahead.

Dr. Jasuja: The poll question is, are you enrolled in any kind of COVID-19 research? We’d like to know whether you are, whether you’re not, or you prefer not to answer, so please weigh in.

Rob: This is going in quickly, so I don’t think it’s going to take very long before we have critical mass and we can go ahead and close, but let’s give people a few more moments. It does look like things have levelled off, so I’m going to go ahead and close the poll.

Dr. Jasuja: Sure. Thanks, Rob.

Rob: And here are the results. What we have here – give me a second to change my view here – 31 percent of your respondents said yes that they are involved in COVID-19 research and 67 percent answered no. Back to you. Thank you very much. I appreciate your patience.

Dr. Jasuja: Thank you, Rob, and thanks everybody for going and getting back to the slide where I was. In keeping with this definition, which was offered in reply to vaccine hesitancy isn’t one thing, this article further provided a portfolio of categories of vaccine hesitancy. From what you’ll understand, I believe there will be different strategies needed to tackle each of these vaccine hesitancy categories.   
  
These categories of vaccine hesitancy range from deliberation, watchful waiting, need for more data on vaccine safety, dissent in which one was not in favor of vaccines in general, vaccine distrust, which can echo due to government involvement or present-day or historical iniquities, vaccine indifference, in which one was not concerned about the risks of COVID-19 and hence not receptive to receiving a vaccine, and finally, vaccine skepticism, which is fear of illness, unnatural substances, and elite conspiracy beliefs.  
  
I also wanted to talk a little bit about why it is important to study vaccine hesitancy among the U.S. veteran population. Compared to the general population, veterans experience higher risks from COVID-19. Specifically, veterans report a 19.5 percent greater mortality rate from COVID-19 compared to the general population. Also, compared to the general population veterans have a more complex relationship with the government considering that they are former soldiers and direct beneficiaries of government care.   
  
Both these pieces might affect veteran’s attitudes towards receipt of COVID-19 vaccination. Until this time our study was conducted, not much was known about these attitudes and perceptions towards receiving a COVID-19 vaccine. As part of the quality improvement project of the rapid response team, which Rani gave more information about, our task was to rapidly yet vigorously evaluate the implementation of COVID-19 vaccines in the VA.   
  
That’s the objective of this study was to assess veterans’ attitudes and intentions regarding COVID-19 vaccination in the VA healthcare system, to inform VA’s ongoing communication efforts on what was going well, what could be improved to increase the uptake of these COVID-19 vaccines.   
  
The sample for the study was drawn from the VA survey of healthcare experiences of patients, or SHEP Veteran Insight Panel. For those of you who are not aware, SHEP is part of the office analytics and performance integration, and it provides the VA with information on a wide range of veteran care, healthcare experiences including access, care coordination, and communication with healthcare practitioners.  
  
The Veteran Insight Panel is a national online group of veterans who regularly use VA healthcare. This group has been created to get veterans’ rapid feedback on VA programs and services on a much-needed basis. Three thousand, four hundred twenty VIP members were invited to participate in a 58-item, web-based survey, which was fielded at the end of March in 2021. Of these 3,420 members, we received complete surveys from 1,178 respondents resulting in a response rate of 34 percent.

This web-based survey assessed veterans’ experiences and responses to a wide range of topics, ranging from experiences with and exposure to COVID-19, their COVID-19 vaccination status, intentions of getting the vaccine the survey was conducted, reasons for not being vaccinated among those who were not vaccinated, and on the other hand, reasons for getting vaccinated among those who already were vaccinated or who intended to get vaccinated, their trusted sources of information around COVID-19 vaccine, and what were the preferred modalities for receiving information around these vaccines.  
  
We mapped the reasons for not getting vaccinated onto the five types of vaccine hesitancy categories, so deliberation, dissent, distrust, indifference, and skepticism. I shared these previously on other slide. We also created a sixth non-vaccine hesitancy category, which we labeled as policy and process. That was essentially to capture logistical challenges veterans might encounter in accessing vaccines, so difficulty in getting or scheduling an appointment for COVID-19 vaccine even though they might be eligible for it.   
  
Among those who were not vaccinated, we categorized these veterans into five categories of vaccine intention groups, those who reported that they definitely will not get vaccinated, those who reported they probably will not get vaccinated, those who are not sure of getting vaccinated, those who are leaning towards probably getting vaccinated, and those who reported that they definitely will not get vaccinated.

Of our 1,178 VIP respondents, 83 percent were male, and 84 percent were white, non-Hispanic. The mean age of the survey sample was around 67 years. We found no significant association between our five vaccine intention groups, age, and gender. Age and gender have been shown to be associated with vaccine hesitancy in the literature. The relationship between race, ethnicity, and vaccine intentions could not be assessed due to relatively small numbers in specific race ethnicity groups such as American Indians and Native Hawaiian ethnicity groups.  
  
Focusing on the pie chart on the right-hand side of the slide, of our survey respondents, 71 percent have received a COVID-19 vaccine and 28 percent have not received a COVID-19 vaccine at the time of the survey. Moving to the pie chart on the right-hand side of the slide, of the 29 percent who were not vaccinated, 27 percent reported that they definitely will not get vaccinated, 13 percent reported they probably will not get vaccinated, 22 percent were not sure whether they would get vaccinated, 13 percent were probably leaning towards getting vaccinated, and 25 percent said they definitely will get vaccinated.  
  
Among those who were not yet vaccinated, the top reasons for not getting COVID-19 vaccinations reflected vaccine skepticism. Thirty-six percent of our respondents were concerned about the side effects from the vaccine. Approximately 20 percent preferred to use as few medicines as possible. Nineteen percent of the respondents said they preferred gaining natural immunity, and around twelve percent said that they were worried that the COVID-19 vaccine would alter their DNA. Other reasons for not getting vaccinated ranged from vaccine deliberation, so around 22 percent of the respondents said they wanted to wait a while before deciding because of the newness of COVID vaccines.  
  
Eighteen point five percent reflected vaccine distrust. That is, they said they did not trust the healthcare system to act in their best interest. Fourteen point six percent reported vaccine dissent, stating that they did not trust vaccines in general. Policy and process issues were reported by approximately 13 percent of the respondents stating that they have not been able to schedule a COVID-19 vaccine even though they’re eligible.   
  
The top motivating reasons for getting COVID-19 vaccines among those who were already vaccinated – and I’ll focus on just the top three – were that it was the best way to prevent them from getting sick from COVID-19. This was followed by 56 percent of the respondents, saying that they want to contribute to ending the COVID-19 pandemic and 50 percent of the respondents reporting that it will help life get back to the way it was before the COVID-19 pandemic.  
  
We also examined association between our five vaccine intention groups and self-reported overall health. Focusing on this bar on the extreme, right-hand side of this slide, veterans who were not sure whether they will get vaccinated were more likely to describe their overall health as fair or poor and less likely to describe it as excellent or very good than those in the will-get-vaccinated, the first bar on this slide, and will-not-get-vaccinated, the middle bar on this slide vaccine intention groups.  
  
We now have seen an association between vaccine intentions and self-reported mental and emotional health. Focusing again on this bar chart on the right-hand side of the slide, veterans who were not sure whether they will get vaccinated were more likely to describe their overall mental or emotional health as fair or poor and less likely to describe it as good compared to those in the will-get-vaccinated, the first bar on this slide, or will not get vaccinated in vaccine intention groups.  
  
Interestingly, who might be the most effective messengers for these not-vaccinated groups depended on the vaccine intention group a veteran was in. Among those who reported they definitely or probably will not get vaccinated – the second column on this slide – media sources, such as the radio, television, or online, the VA, Centers for Disease Control and Prevention and VA coworkers or classmates were cited as the most trusted sources of information. For those who were not sure they would get vaccinated – those in this third column on this slide – besides media sources, the VA, the Centers for Disease Control, they also reported their VA healthcare provider as a trusted source of information around COVID-19 vaccine.  
  
Further, in terms of what would be the preferred modalities for receiving communication regarding COVID-19 vaccine among those who were not vaccinated, the top three modalities cited were in-depth written material about COVID-19 vaccine research, talking to someone they knew, and reading written material on a website.  
  
We also examined associations between veterans’ personal experiences with COVID-19 and vaccine intentions. Among those who have not been vaccinated, we created three COVID-19 exposure groups. Group One were veterans who had not had COVID-19 themselves nor knew anyone who had had COVID-19, so the no-exposure group. Group Two were veterans who had not had COVID-19 themselves but did know others who’d had COVID-19 and Group Two veterans who had had COVID-19 themselves.  
  
We found significant associations between these three COVID-19 exposure groups and vaccine intentions. Veterans in Group One, that is the no-exposure group, were more likely to not intend getting vaccinated, while veterans in Group Two that is those who had not had COVID-19 themselves but did know of others who’d had COVID-19 were more likely to intend getting vaccinated. Finally, veterans in Group Three that is those who had had COVID-19 themselves, were more likely to not intend getting vaccinated or were unsure about getting vaccinated.  
  
Findings from our study present the many reasons why vaccine hesitancy is present in the U.S. veteran population during the COVID-19 pandemic. We found that vaccine hesitancy is multi-faceted and can be conceptualized as dissent, distrust, skepticism, and deliberation. Among those who were not vaccinated, concern about the side effects from, so vaccine skepticism, and newness of the COVID-19 vaccines, vaccine deliberation were the most-frequently cited reasons for not getting vaccinated. On the other hand, avoiding getting COVID-19, so benefit to one’s self and contributing to the end of the pandemic, community and societal benefits were the two most important reasons for getting vaccinated among those who were already vaccinated.   
  
We also found that those who were unsure of getting vaccinated were more likely to report fair or poor overall in mental health, and this suggests that viewing once held this Fairchild [?] contributed to heightened concerns about the safety of COVID-19 vaccine, which might have affected their decision to getting vaccinated. Trusted sources of information around COVID-19 vaccines varied depending on the vaccine intention for prevention was in, so a higher proportion of those who were not sure about getting vaccinated reported that their VA healthcare provider as a trusted source of information around COVID-19 vaccines compared to the definitely-will-not or probably-will-not get vaccinated vaccine intention groups.  
  
We also found that vaccine hesitancy varied depending on one’s personal COVID-19 experience. Veterans who reported that they did not have COVID-19 about this study, having one conversation is not going to be enough to get a good understanding of this problem of vaccine hesitancy. For the need to be continued, multiple conversations from trusted sources to help move this needle from vaccine hesitancy to vaccine acceptance.   
  
I wanted to take a moment to acknowledge the many co-authors on this study who made important contributions to the study. I also wanted to share a publication which showcases all of the findings which I shared with you today. I’d be happy to take any questions and comments after Taona presents, and thank you for listening.

Rob: Thank you, Dr. Jasuja. Dr. Haderlein, give me one moment please while I make you the presenter. I believe you’re the presenter now, Taona.

Dr. Haderlein: Great. Thanks, Rob. Hi, everyone. It’s great to be here and very interesting to hear Dr. Jasuja’s findings as well. I think it provides a general context for my study, which is on serious mental illness diagnosis and the COVID-19 vaccine uptake in the Veteran’s Health Administration. This is where I conducted, as part of the Veteran’s Emergency Management Evaluation Center. The views that I’ll be expressing today are those of my own and my co-authors alone, and I also wanted to acknowledge my co-authors and to acknowledge funding from the Office of Patient Care Services.  
  
I’ll start with an overview of the issues around COVID-19 and serious mental illness, or SMI populations. People with serious mental illnesses such as bipolar disorder, schizophrenia, and schizoaffective disorder show higher rates of COVID-19 infection, COVID-19 severe illness, and COVID-19 mortality compared to the general population. There are multiple potential reasons for this. For one, people with SMI are at higher risk for obesity, diabetes, cardiovascular disease, and COPD, all conditions that have been identified by the Centers for Disease Control as predictors of negative COVID-19 outcomes.  
  
People with SMI also exhibit higher rates of social determinants of COVID-19 such as housing instability and poverty. Finally, people with SMI are susceptible to cognitive and behavioral risk factors for COVID-19. They’re more likely to engage in unhealthy behaviors such as smoking. In fact, since the onset of the pandemic, smokers with SMI have shown a sharper increase in cigarette smoke per day than smokers without SMI.   
  
People with SMI have also reported less knowledge about COVID-19 symptoms than people without SMI and have reported less knowledge about how to prevent COVID-19 infection. There are also other consequences of the COVID-19 pandemic besides COVID-19 outcomes. For example, social distancing guidelines could disrupt psychiatric treatment affecting access to psychotherapy and to psychiatric medications. Also, these disruptions could affect the therapeutic relationship between patients and their mental health providers, which is an important mechanism of change.  
  
People with SMI report higher social isolation than people without SMI. Social distancing guidelines, although necessary for public health and safety, risk heightening social isolation in an already-vulnerable population. People with SMI are reporting higher stress and anxiety in response to the COVID-19 pandemic compared to the general population. Finally, health experts have expressed concern about this info dynamic of mixed messaging around COVID-19 and the COVID-19 vaccine. It’s very confusing sometimes for all of us, but among people with SMI, these mixed messages could exacerbate pre-existing paranoia, mistrust, or fear.  
  
In the VA, veteran VA users are older than the general U.S. population, and they also exhibit higher prevalence of risk factors for severe COVID-19 illness. And so, an early mobilization of resources and personnel took place in December, 2020 in preparation for the VA, COVID-19 vaccine rollout. However, there are some knowledge gaps that still exist. There’s a decent amount of research that examines theoretical issues around SMI, but more work is needed that uses data from the electronic health record to examine associations between SMI diagnosis and COVID-19 vaccine uptake.  
  
Despite heightened risks for negative COVID-19 outcomes among veterans and past-described COVID-19-related vulnerabilities for people with SMI, there is no known work that focuses on the association between SMI diagnosis and COVID-19 vaccine uptake among veteran VA users. The current study aimed to examine the association between SMI diagnosis and COVID-19 vaccine uptake among veteran VA users.   
  
Regarding our study methods, we applied a retrospective observational design using data from the VA electronic health record. To create a sample of veterans with prior VA use, we included veterans with one or more VA outpatient visits within the two years prior to the onset of the U.S. COVID-19 pandemic, which we dated as March 1, 2020 for the purposes of our study.  
  
The objective was to examine the association between SMI diagnosis and COVID-19 vaccine uptake among veteran VA users, and so towards that end, our independent variable was SMI diagnosis as a binary variable coded yes or no. We determined SMI diagnosis based on the presence of one or more inpatient or two or more outpatient diagnoses in the EHR before the onset of the COVID-19 pandemic. SMI diagnoses were identified using ICD-10 codes. This a list of the ICD-10 codes that we used to indicate SMI diagnosis. They were pulled from documentation by the Office of Mental Health and Suicide Prevention.  
  
The diagnoses encompass psychotic disorders, schizophrenia, bipolar disorder, and manic episodes. Our outcome variable of interest was VA COVID-19 vaccine uptake, which was determined based on the presence of one or more VA COVID-19 vaccine doses between December 1, 2020 and June 1st, 2021.   
  
Our model included a number of covariates that might account for differences in COVID-19 vaccine uptake. The covariates that we selected were informed by Anderson’s Behavioral Model of Health Services use, specifically the primary determinants and the health behavior domains. Under primary determinants, we have demographics and mental health. We also assessed two measures of medical morbidity. The VA Care Assessment Needs Score, or CAN score is an internal measure that estimated one-year probability of hospitalization or death based on an algorithm that includes clinical and socio-demographic variables.   
  
The trends are assigned a percentile based on their probability of hospitalization or death relative to the general VA population, and so possible scores can range from zero to one hundred with higher scores indicating higher risk of death or hospitalization. The Gagne Comorbidity Index assesses probability of death based on medical and psychiatric diagnoses during the past 12 months. We also included variables from the health behavior domain, specifically flu vaccine history and smoking status.  
  
For our analyses, we used inverse probability weighting, or IPW, to estimate the average treatment effect of SMI diagnosis on COVID-19 vaccination. IPW is a method for equalizing control and treatment groups on a series of covariates. For our purposes, patients with SMI are the treated population and patients without SMI are the control population. The analysis was carried out in two steps. First, we equalized the SMI and control groups on the covariates mentioned earlier using inverse probability weights from our regression model. For that step, SMI was the dependent variable and the covariates were the independent variables.   
  
We estimated the average treatment effect of SMI diagnosis on COVID-19 vaccination as the second step. For our results, first I’ll show some patient characteristics. Our sample included 4.9 million veterans, and 4 percent had an SMI diagnosis. Just looking out through our counts here, 48 percent of veterans in our cohort that had SMI received a VA COVID-19 vaccination as of June 1st, 2021 compared to 46 percent of the trends without SMI. Patients with SMI were younger on average, were more likely to be from a racial/ethnic minority group, had a higher representation of women, were less likely to be married, and were less likely to carry non-VA health insurance.  
  
Our measures of medical morbidity, the VA CAN score and Gagne Comorbidity Index, the SMI patients showed a higher risk of death and hospitalization than people without SMI. In fact, we can see here that 56 percent of people with SMI had a care assessment needs score in the 75th percentile or higher compared to 24 percent of people without SMI. They had higher Gagne comorbidity index scores, and they also showed higher rates of depression, PTSD, and substance use disorder. Patients with SMI were more likely to have received a flu vaccination from the VA in the prior two years, and they were more likely to be current smokers.  
  
This is a breakdown of serious mental illness diagnostic categories just for the patients with an SMI diagnosis. You can see that was about 200,000 in our sample, and the most frequently-occurring disorder was bipolar disorder followed by schizophrenia, schizoaffective disorder, and an unspecified psychosis. All of the remaining diagnoses occurred in less than 4 percent of the sample.  
  
Here, we have our findings. After equalizing the groups on study covariates, IPW analyses estimated that 46 percent of veterans with SMI received a VA COVID-19 vaccination, and we found that an estimated 46 percent of veterans without SMI received a VA COVID-19 vaccination. After waiting on demographic and clinical characteristics, SMI diagnosed patients and patients without SMI were comparably likely to receive a VA COVID-19 vaccination.   
  
To summarize, COVID-19 vaccine receipt was comparable among VA patients with and without SMI diagnoses. This occurred despite evidence of elevated risk factors in prior research and despite the higher rates of medical and behavioral vulnerabilities that we saw in our current sample. It corresponds with prior studies that report smaller or higher medical and mental health services use among people with psychiatric diagnoses in VA populations. It also supports research that shows higher or similar access to COVID-19 health services for mental health populations in closed or hybrid healthcare systems.  
  
It’s possible that outreach activities VA rolled out in preparation for the vaccine addressed some access barriers that are common in the SMI population. For example, the VA called eligible patients directly to schedule vaccine appointments, which reduces logistical barriers. The VA disseminated educational materials about the vaccine and how to obtain it, which could counter the info dynamic of mixed COVID-19 messaging to an extent.   
  
The VA provided both technological and non-technological options for scheduling a COVID-19 vaccination appointment, which is important given past research reporting difficulty navigating health technology among people with SMI. There are some limitations to our study. We used observational data from a six-month period. As a result, we can’t draw conclusions about longer-term trends. SMI diagnosis was based on the electronic health record, and so there could be some variation based on the reporting and coding practices. Our findings may not generalize to veterans who do not use VA health services, and we only examined VA COVID-19 vaccinations. We have no record of non-VA COVID-19 vaccinations.   
  
In conclusion, people with SMI are vulnerable to negative psychological and physiological consequences from COVID-19. Our findings suggested that despite higher needs among people with SMI in our sample, at this early stage of the vaccine rollout the VA managed to provide an equitable COVID-19 vaccine distribution for people with and without SMI. Continued monitoring of vaccine uptake and continued identification of strategies for COVID-19 vaccination is needed to continue to maximize vaccine uptake among people with SMI.  
  
I wanted to note that just last week this article became available online at the *Journal of Psychiatric Services*, so you can check that out there if you’d like more information and just some selected references. I will turn things over to Rob so that we can get into questions.

Rob: Thank you, Dr. Haderlein. We do have a couple of questions queued up that came into the Q&A, and I think maybe there’s one or two in the chat, but we will definitely prioritize questions that come into the Q&A. That’s what I asked for in the beginning. So, if you have questions, audience members, please find the Q&A panel and send them there, and I will read them aloud. This one came in early, so I believe it’s for Dr. Jasuja, however if it’s appropriate for you to answer, Dr. Haderlein, by all means go ahead. The question is, at the time of the survey, was the vaccine advised for adults regardless of their age?

Dr. Jasuja: I’m sorry, Rob. Could you repeat that again, please?

Rob: Sure. At the time of the survey, was the vaccine advised for adults regardless of their age?

Dr. Jasuja: I think we took the survey around the end of March, 2021, so I’m assuming that there were certain age restrictions in who was getting the vaccine. This was really early March, so I’m just thinking in December probably there was an advisory on veterans, older veterans who could get vaccination who were in CLCs. So, I’m thinking probably there was some age restriction around this time.

Rob: Thank you. Taona, was that an appropriate question for you?

Dr. Haderlein: Nothing to add here I think that’s specific to Dr. Jasuja’s survey methods.

Rob: Thank you. This one, I’m not sure who it addresses specifically. It came in at 12:25. The person writes, “Really great talk. Since lots of veterans have volunteered for COVID research, is any of the survey data available that could be connected to subjects who have consented to research studies?”

Dr. Jasuja: That’s a great question, and I don’t have a response to that. I can certainly explore and let the person know. My email address is here, so I’m happy to find out more, but as of now I don’t have a direct answer to that.

Rob: Okay. Thank you. Once again, if you have questions for our presenters, either Dr. Jasuja or Haderlein, please submit them to the Q&A panel. If you don’t see Q&A, click on the ellipsis button in the lower right-hand corner, the three dots, and you’ll see Q&A. Display that, click on that, and you’ll get a little blue check mark, and Q&A will appear in the same area that chat is. This one is also for Dr. Jasuja. “If veterans who had COVID were more likely to not intend getting vaccinated or were unsure, what are some suspected reasons for why this is? Could it be worries over their own health status if their health was poor? Additionally, do we know how these data compare to non-veterans?”

Dr. Jasuja: That’s a great question again. I think I kind of suggested in the talk that report their health as poor, both in terms of their overall health status and their emotional health, were less likely to be vaccinated. That’s got to do with the fact that I think viewing one’s health as fragile or poor might lead to or might contribute to two concerns around COVID-19 vaccine safety. That might affect their decision to get vaccinated. I think there has been some similar data in the non-VA population as well, but I’m happy to talk more online about this but the \_\_\_\_\_\_ [00:40:13] actually explain it.

Rob: I believe this one is for Dr. Haderlein. “Has the research taken into account for homebound veterans unable to get to VA facilities? Recently seen information on TVs in waiting areas at Saginaw, Michigan VA for veterans and caregivers/nurses?

Dr. Haderlein: It might be for Dr. Jasuja, but I guess for our study I could say that we didn’t account for that variable in our model. That’s a really good point, so thanks for bringing that to our attention.

Rob: That’s all that we have right now at this very moment. I’m sorry, another question came in, I believe. This person had to leave, so they’re not sure if this question was asked already. “Did you go back and see how many of the patients that did not get the vaccine get it?” Did that make sense? I’m not sure who this is directed to, but the question really is, did you go back and find out if anybody who did not originally get the vaccine in your study eventually get vaccinated?

Dr. Haderlein: Yes. We were up there talking about longitudinal follow-up. In our case, the study was set an early time of the vaccine rollout. We haven’t looked at any follow-up data to see if there’s changes. You might have something you had for your study, Dr. Jasuja?

Dr. Jasuja: No. This was a one-time survey study, and it was obviously very rapid and a very quick study which was conducted to respond to VA’s priorities, healthcare priorities at that time. So no, we haven’t gone back and seen that, but I think it’s a great thing to do. People who weren’t vaccinated at the time we conducted our survey, have they been vaccinated or not?

Rob: We don’t have any other pending questions at this moment. That person followed up with, “It would be interesting to know how many people changed their minds.” I think we’d all agree to that, but we don’t have any other questions at this moment. While we wait to see if anybody else wants to chime in, I will give you an opportunity to make closing comments. I’ll just go in the order that we presented. Guneet, Dr. Jasuja, do you have any closing comments to make?

Dr. Jasuja: Just very briefly, Rob, thank you for inviting me for this cyber seminar. I think this was great to present the findings from our study, which we just did last year. It was just a matter of six months we were able to field the survey, collect the data, analyze the data, and publish the data. So, I really enjoyed being here with Taona as well.

Rob: Dr. Haderlein?

Dr. Haderlein: I would add that the VA provides an interesting counter-factual in a way example of what happens when people from vulnerable populations have readily-available access to healthcare. I think it’s a really interesting context to conduct this kind of research, especially with populations that might experience barriers in other contexts. So, I’m very happy to present today and in this case kind of a finding of no difference is super-helpful and interesting. I’m also really excited to be invited and happy to hear about Dr. Jasuja’s research and present along with her as well. Thanks for having me.

Rob: Wonderful. Thank you both for your work in the VA in general and for preparing and presenting today specifically. Attendees, when I close the webinar momentarily, a web page with a short survey will pop up. Please do spend a few moments and provide your answers to those. We count on them to continue to provide high-quality cyber seminars such as this one. Once again, Drs. Jasuja and Haderlein, thank you very much. With that, I’ll just wish everyone a good day.