NAADAC

CT Collision of SUD and COVID-19: A NIDA Update

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>> SAMSON TEKELMARIAM: Hello everyone and welcome today's webinar, *A Collision of SUD and COVID-19*. I am Sansom Tekelmarian the training and professional director at NAADAC. I will be the organizer for the training experience. The permanent homepage for NAADAC webinar is www.NAADAC.org/webinars. Stay up to date on the latest in addiction education. Closed captioning is provided by CaptionAccess, check your most recent confirmation email or Q&A chat box for the link to use closed captioning. Every NAADAC webinar houses everything you need to know about that particular webinar. The link at the top of the screen is incorrect and I will fix that later but everything you need will be posted@naadac.org/SUD-COVID-NIDA that will also be in your email and how to get CE's. If you've never used our online CE quiz and certification process, make sure to use the instructional guide attached to the handouts tab of this webinar or click the hyperlink underneath that link to access the CE quiz and online certificate questions. We are using Gotowebinar and you will notice something that looks a little like the image on my screen.

That orange arrow can be used to minimize or maximize the control panel at any time. If you have questions for the presenters, type them into the questions box and we will gather those and give them to our presenters during the webinar we will post a Q&A document. And you will see also a tab called “handouts". You can download a PDF and out from there and download a user-friendly instructional guide on how to access the online CE quizzes and earn your CE certificate. Use our instructions document if this is your first time taking the quiz.

Let me introduce you today's presenter, Dr. Jack Stein said Director of office policy and communications and has two decades leaving with drug and HIV research and policy initiatives for NIDA, for the national drug policy and SAMSHA. He has served as the chief of the prevention branch but in 2019 Doctor Stein was appointed NIDA Chief of Staff. NAADAC is delighted to provide this webinar provided to you by this incredible cast of presenters that I will let Doctor Stein introduce. Jack?

>> JACK STEIN: Fantastic. Good afternoon everyone.

Thank you for the lovely introduction and good afternoon everybody. It really is a pleasure to be here despite it is a virtual environment. many of you who have attended NAADAC conferences I hope you had an opportunity to visit -- I've had an opportunity to visit with several of you. It NAADAC has been a critical partner with NIDA and is our opportunity to get the latest research findings to the field, we have a terrific agenda planned for you today, and our focus will be taking a look at where we are with the research base of substance use disorders related to COVID 19 which is clearly on everyone's minds and literally changing on a daily basis.

I am going to move quickly and first focus on our agenda for today. And we have broken today's two hour seminar into two major parts. Part one about myself and my colleague, Jennifer Hobin, the Deputy Director for science policy and communications and we will provide a few minutes focusing on an overview of the nature view of the problem of substance use disorders in the era of COVID-19.

Following that, we will turn things over to Drs. Kurt Rasmussen and Will Aklin will provide an overview and update of research into treating SUD and then we will wrap up with having Dr. Redonna Chandler with the connection of SU D and HID aids. And we've been focusing on this for many decades. At that point we will take questions. We will field some of them and recognize as Samson mentioned that we can respond to the questions after this event as well. Then we will move to part two, which is very exciting as well. Phil Rutherford and Jessica Hulsey will give us their perspectives on working with patients and families in the era of COVID particularly. It should be a fast-paced series of sensations and I have asked my colleagues to keep their comments at about 15 minutes to give us opportunity to go through things rapidly and field questions.

Buckle your seatbelts and here we go.

Let's take a look at the overview. Myself and Jennifer will be highlighting. I think most people have been tracking the course of the substance use disorder problems over these number of years with respect to the impact on overdose deaths. This slide gives you a quick snapshot of what has happened up through 2019 with respect to overdoses. As you can see the key culprit that we need to keep our

eyes and ears focused on have to do with synthetic narcotics like Fentanyl. You see a steep increase at 2019, the orange line. Other substances such as heroin in terms of overdose have actually gone down a bit but it is really the synthetic narcotic Fentanyl that is of great concern, and we're keeping a great close eye on amphetamine and cocaine which also has been increasing.

So to give you a sense of the growth over the last number of years, you can see there's been almost a 50%, 42% per month increase during the pandemic as compared to the same month in 2019. This is data that's been collected over the last number of years, trying to keep track of what is happening with the epidemic.

Now, with respect to actually drug use, this is data that had been provided to us through Millennium Health, one of the drug testing companies that tests drugs through drug treatment programs throughout the nation grid so it is an important and useful proxy giving us a sense of what the nature of drug use has been during COVID. And as you see during the era of COVID thickness back to March this year you see our rapid increase in the total US increase of drug use in general and Fentanyl is highlighted in that orange line.

One of the biggest questions out there is, is there an increased risk for people with substance use disorders, connected to COVID? You see in this slide based on an article that has been co-authored by our director, we are seeing individuals highlighted in all three graphs. This demonstrates there is an increased risk and outcomes for people who are dealing with substance use disorders. This graph also tells us that there is a distinction between race and ethnicity. And so what we're saying is individual with substance use disorder that are African-Americans are at increased risk of significant outcomes which tells us the importance of looking at the diversity issue and ensuring there's proper treatment, care and recovery support services for individuals in all race and ethnic groups.

I would like to move for moment in terms of what is happening at NIH. If you've not heard about the HEEL initiative I want to point your attention to it. It stands for the helping to end addiction long-term. This is a large cross NIH initiative addressing the opioid crisis. And it consists of a number of

components depicted in the graphic. Recognize were looking at two major areas, one to improve treatment for misuse and addiction and secondly how can we enhance pain management so we do not rely on opioids to the degree that we have to treat pain and other alternatives. Initiative is broken into a number of areas I encourage you to check out the NIH HEEL website which you simply Google HEAL and this website will tell you about the different programs operating.

I would like to highlight two in particular. First the healing community study. And the other is the justice community opioid innovation network. Both are very large longitudinal studies that are trying to get a better understanding of how can we on a community level address dealing with the opioid crisis?

As I wrap up, I would like to highlight what we've learned so far in terms of some of the structural changes affecting the SUD treatment community, no doubt many of you are seeing this on a daily basis. The stress of COVID has significantly increased many of the demands and challenges that we see with their clients. The stigma issue is something that we have struggled with for so many years with SUD, adding the COVID component makes it more challenging.

Assessing medications for opioid use disorder, the challenges been significant when we move particularly to social isolation. Limiting access to peer support groups and the social distancing has clearly increased her chances for individuals to overdose with no one present to administer naloxone. The challenges are significant great let's look at the policy issues and some of the response from NIH and I will turn things over to Jennifer and we will move into presentations from our other colleagues. Jennifer?

>> JENNIFER HOBIN: Thank you very much, Jack. So as Jack mentioned, COVID continues to pose significant challenges to people with SUD. at the same time it has opened up an exciting opportunity and treatment. We have seen an expansion in the use of telemedicine, physicians can prescribe through telehealth outside their state. People with OUD can begin treatment with buprenorphine . Expanded access to methadone where it is possible for patients on methadone who are stable to take on 28 days

of medication, this is a change from the daily supervised dosing commonplace and tightly controlled take on policies.

Even possible to get a surrogate to take on medication for person or doorstep delivery for those quarantining. The office of national drug control policy has a comprehensive list of all the changes that have been made to these policies, on their website. I encourage you to check them out because it provides a nice overview. NIDA supports research to understand how COVID and SUD intersect in the IMPAC of the impact on substance use disorders and recovery and other aspects. It's a very early on in the pandemic in March we had a notice for special interest for research for the intersection of COVID and SUD and funded nearly 90 application under this so these are supplements to existing NIDA research projects and the solicitation is open until March 2021. So we are looking forward continuing meritorious research under this announcement.

This is an example of some of the types of research we are funding. So how does telehealth affect OUD treatment including in rural areas. How is the pandemic affecting adolescents, pregnant and postpartum women and their infants but we facilitate counseling and therapy support in the context of the pandemic.

I should mention that all of the work that NIDA is doing in support of COVID research is against the backdrop of a larger trans NIH COVID initiative in great part focused on the development of vaccines, treatments and diagnostics for COVID but also works to understand how population -- has special populations are affected by the pandemic, the virus itself as well as the consequences via social isolation etc.

NIDA is involved in much of this work. So for example, the rapid acceleration for diagnostics for underserved population, NIDA is getting grants for this work which is getting underway and we are really looking forward to results from the study. We have a website that compiles much of the NIDA-relevant information on COVID, the URL is at the bottom of the slide. This research literature etc. and you will find that information useful to tour what NIDA has been doing in this space. There's also guidance for

providers, largely through the NIDA-med that provides research for health professionals. And the nih will be in the coming weeks launching its own website that will be a one stop shop for COVID relevant information across NIH in a way for you to dig down to the research we are funding.

I want to take a few minutes to talk about some of the more general policy issues and give you a sense of the breadth of the work we do in the Office of Science Policy and Communication. We handle legislative affairs for NIDA slight interface with congressional offices handling inquiries and other correspondence coming in from them. It should come as no surprise that top priority for federal policymakers and Congress is the addiction crisis in addition to COVID, but they've been focused on this issue. We get a lot of inquiries.

But with the rising stimulant overdose this is become a concern for lawmakers as well. And Congress has been briefed several times on work we are doing to support the development of new treatments for stimulant use disorders including methamphetamine, and cocaine including a briefing of freshman working group on addiction.

Along the same lines with stimulant use disorders, one of the policy issues on our radar are the challenges with the provision of contingency management therapy which is something you are all familiar with, but contingency management is a behavioral treatment in which behavioral change targets are carefully managed and incentives are given with compliance. Unfortunately, under federal policy the level of incentives that can be provided for patient pain management is limited to $75 per patient per year except for the Department of Veteran's Affairs. This maximum is considerably lower than the value of incentives that research has shown to be efficacious.

And there is some concern that we've been hearing from the community that this could be a barrier to effective use of contingency management, so this is something that's been talked about that's been on the radar of policy makers, and we want to highlight that for you here.

A couple other issues that are priority for policymakers are adolescent tobacco and vape being use given the significant increases in vape being an E cigarettes. Cannabis and access to controlled substances is probably the number one policy issue that I deal with. At least from a congressional perspective. It is no surprise that given the rapidly changing landscape around marijuana use with more and more states increasing or legalizing use for medical or adult use purposes, the policymakers are really interested in understanding what the effect of cannabis are on health of individual health and public health. So we are getting questions around that. We are expecting -- we are expecting these questions to keep coming, particularly given the landscape of changing drug policy in the US. We are seeing Justin the 2020 election we've seen a few more states legalize cannabis. We have seen legalization or decriminalization of hallucinogens in various jurisdictions. And for the first time the decriminalization of all controlled substances in Oregon.

This is a high priority for NIDA to understand what these changes will mean for public health and something that we are continuing to research.

's out on the cannabis thread I want to make you aware that one of the things we are doing in marijuana research is encouraging the research community to adopt a standard unit of marijuana for research purposes which allows us to standardize how the marijuana or the unit will give us a handle on the effect of the products the public is using grid there's no consistent labeling standard now across the country. So we hope that researchers will adopt the standard unit but ultimately that it could get adopted in the marijuana marketplace and facilitate research on these products.

So just last couple of things that I want to make you aware that we are updating the NIDA strategic plan for 21-2025. This is expected to be out in the spring. This will cover terms of the work NIDA supports from understanding drug use behavior on the brain and prevention and treatment interventions and recovery support strategies. The implementation, implementing evidence-based strategies in the real world. We issued a request for information, received some helpful comments from the public in the last several months and our staff is busy developing this and release it in the springtime following feedback from the NIDA advisory Council.

The last thing I want to mention is a component of our strategic plan is to incorporate information about an ongoing NIDA initiative to promote racial equity. This is an initiative focused on improving equity and inclusion in the NIDA workplace and scientific research workforce, as well as identifying gaps and opportunities for facilitating research and ameliorate many health disparities that we see with regard to substance use disorders and co-occurring conditions. This is a high-priority and something we are looking forward to continuing to develop and released to the public in coordination with our strategic plan.

I know that was a whirlwind tour but I will end my comments there and I'm happy to take any questions along with Jack.

>> JACK STEIN: We have a few questions coming in, but we will hold that for the end. Now we will talk about treating substance use disorder and we will start with Kurt Rasmussen, who has been with us for a number of years and comes from a long history working in the pharmaceutical industry, so he really understands these issues on many perspectives and we are delighted to have him here. So I will turn it over to you.

>> KURT RASMUSSEN: Thank you, Jack. Thank you for the invitation to speak today. I would like to share with you the exciting progress that is being made in the development of new treatments, new medications for the treatment of opioid and stimulant use disorders.

First, I will start out with emerging novel treatments for opiate use disorder. I don't have to convince this audience there is an unmet medical need in the treatment of opiate use disorder. Things like improved treatment of withdrawal both acute and prolonged and induction onto antagonist therapy. We know there's poor adherence even on medication. There are residual symptoms with medication and then craving and relapse are broad categories of the unmet medical need in this disorder.

So, opiate use disorder as all substance use disorders, it's not a monolith. It's a complex changing practice were someone starts out with voluntary consumption but can lead to un-compulsive behavior. The brain changes throughout the process in overlapping and different physiology's in different stages of the disease. So there is a lot of complexity but in mind this represents an opportunity. Because there are likely to be multiple targets in different brain receptors at different stages of the disease. And that could be amenable to treatment, to new medications and treatment. There are even different stages of withdrawal. This gives us an opportunity for multiple medications in design medications useful for individual patients because it will be different for different patients.

Our goal in our division is more treatment options for healthcare professionals and patients battling addiction. So one category of novel treatments going forward for opiate use disorder or new formulations of things that are already approved. Of course, we've got agonists, partial agonists and antagonists out there and you can see there are new formulations for things like the locks on an naltrexone and nalmefene these are all in development at this time and they may not all succeed but hopefully they will come forward to give more treatment oxen spirit so naltrexone is one long-term injection. But there are others in development. They may not all succeed but as they come forward, they will give more options for treating patients.

Similarly, with naloxone for rescue medication. As a new antagonist or another antagonist, nalmefene in development, and so these novel formulations are relatively close to the patient. I hope these can be out in the next 2-3 years, some of them at least read so there are more coming, more formulations of existing medications coming.

Additionally, there are other things close to getting to the patient that could also be used for substance use disorders. So here are two compounds whose work we are supporting. Investigation we are supporting, that could be useful for opiate use disorder. So suvorex is a nonselective antagonist marketed by Merck for insomnia. There are multiple investigator-initiated trials on going to look at suvorexant in opiate use disorder because of the emerging biology, there is very good used to think that the orexin system is in overdrive for those suffering from opiate use disorder in one indication is the difficulty sleeping.

So we are hopeful that this compound that is already on the market, if appropriate tests are done, can show its utility in treating opiate use disorder. With the insomnia and sleep disturbance since but even other symptoms. In addition to the two on the market and there is another one in phase 3 so hopefully there will be several options.

And were also supporting work to look into what is typically used as an antipsychotic, Rexulti, is an antagonist for schizophrenia and could be used a number of ways but potentially as an adjunct to help with sleep and anxiety. We have funded a grant for this company to look into this possibility. So again, if those come through, these are treatments already on the market that could rapidly help patients.

Further back there are compounds of already been through phase 2 trials for other indications but now we think could be useful for opiate use disorders paired one is a GABA B PAM Astellas, they had an international press release announcing this and this compound in its current trial has been used as for opiate use disorder per there are residual symptoms and people stopped using it for a number of reasons but so it may be an adjunctive treatment which would help compliance and help people stay on longer.

Another compound is Tezampanel, which has been studied at phase 2 trials and these are safe to give to people. So we are hoping a study in OUD will allow for the use of this for the patient but this will block some withdrawal symptoms to improve the transition to naltrexone therapy.

Other mechanisms of action that are not tested yet, so there is a whole cornucopia of options coming forward that we are happy to say breed one of those is currently in phase 1 and there are multiple companies and this has the potential to treat a number of symptoms and OUD, in the highest likelihood looks like it would be anxiety and these patients paid

We also have one in phase one trials and then we have Biologics. There's a vaccine in development and a monoclonal antibody for rental in development so there's a wide variety of treatments in different stages of development.

There's also emerging novel treatments for stimulant use disorder. And this has been increasing, the occurrence of which has been increasing dramatically but here are already marketed products out already. Suvorexant could be used for stimulant use disorder, the emerging biology indicates that both cocaine and opiates, Morphine and Fentanyl, have dramatic effects on the orexin system in the brain. So these same compounds for opiate use disorder could be used for stimulant use disorder. This is already on the market so we can show that it is useful in a different patient population and this could to patients quickly.

Buproprion has been used mostly as an antidepressant in a number of different ways, it has potential for its utility and stimulant use disorder and it is been well studied. This is already on the market and if we can figure out how to do it right, this could be a potential treatment option coming forward.

There's a compound that has been through phase 2 trials for other indications. So this means it is relatively safe, you can give it to people it has good characteristics and relatively safe. But it was not effective in the other trials but potential for it in stimulant use disorder and in fact there's an ongoing phase 2 trial from Novartis, that makes this compound for cocaine use disorder. So we are very excited to see the results of the trial.

And there are also some novel mechanisms of action that have not been tested in any indication. And I mentioned that the Ox-1, antagonist because this mechanism has the potential for stimulant use disorder as well as opiate use disorder. It's very exciting, there are also monoclonal antibody for methamphetamine that's in phase 2 trial that is about to start. So there are some very exciting treatment options coming forward.

The only thing that would be useful to developing new devices and behavioral therapies, and we will give more detail about that shortly. But ultimately in our minds, these will need to be worked -- used together, and orchestrated for different patients who need different levels of these interventions. With that I would like to introduce Will Aklin will talk about behavioral therapy development program that we support at NIDA.

>> WILL AKLIN: Thank you. Good afternoon, everyone. I direct the behavior therapies development program at the national institution of drug abuse and I am delighted to speak with you today about some of the exciting opportunities that we have ongoing within our division and supporting NIDA research. So the behavioral therapies development program really is three overarching goals. The first is essentially to establish efficacious behavioral treatments for substance use disorder written we really span the gamut in terms of marijuana, cocaine use disorders as well as others.

>> SAMSON TEKELMARIAM: I think your WebCam shut off, Will...

>> WILL AKLIN: There we go. My apologies. The second goal is to produce treatments that are in alimental and self-sustaining and we want to make sure the treatments can extend beyond the funding treatments so these are self-sustaining and implementable interventions and also to develop optimal behavioral strategies to promote medication and SUD treatment adherence.

These research areas really span efficacy, highlighting the efficacy across mechanisms of action, clinically validated digital therapeutics, combining medications with behavioral therapies as well as neuromodulation. These research topics really align with high-priority research areas including research that integrate treatments with the understanding in the known mechanisms of action and standardize therapeutic delivery.

I would also say an important aspect of this is that it can really boost effects and increase efficiency of interventions.

Increase the options for remote delivery of treatments. Pain management, resulting in opioid sparing so they rely less on opiates and get benefit from therapies and other devices. Overdose reversal and link to treatment is a high priority area for the behavioral program. And the fact that there are no FDA approved medications for cocaine, methamphetamine and cannabis, these remain a significant priority to our research efforts.

The overarching framework that we operate under is the experimental medicine approach. This approach seeks to answer the fundamental question of, what are the processes and mechanisms that drive behavior change. Essentially, how and why the specific treatment works and what are the mechanisms that drive behavior change.

In order for this experimental medicine approach –I would say to be realized, it has to answer three questions. It has to have hypotheses about the specific target or the mechanisms that drive behavior change. Experimental medicine or experimental methods or strategies rather, for engaging the target. Suggesting the treatment itself can engage in specified target. Invalid measures for assessing the target engagement. Those are the three areas required for an experimental medicine approach, which really drives our treatment development efforts.

This graph highlights the traditional approaches for treatment development. So at the bottom you can see the interventions and you are measuring a specific outcome of behavior change. So this has clear implications for treatment development. So when you are looking into an experimental medicine approach it is really looking at a specific target, for example, impulsivity. And whether the intervention targets the impulsivity or targets the specified target or putative target and whether the measurements are valid to your outcome change, so the mediated change we tend to see.

This is important that if we can show that there is some implications for improving some putative target that can have an effect on substance use, then I think we can really fine tune and make our behavioral treatments more efficient as well as more effective.

So this slide, this demonstrates a process, for stress for example on the left -- stress you have so many components. So saliency, control, drive and memory. That is important for treatments to delineate the specific hypotheses, the hypothesized mechanisms by which treatment will produce a behavioral change. So in this graph you see the specific targets being assessed, as well as the corresponding treatment. And so when you look at saliency for example, the target is to interfere with the drugs reinforcing effect and contingency management is a sledgehammer when it comes to interfering with the drugs reinforcing effect. It is a very powerful behavioral intervention.

Looking at control, executive function and inhibitory control, cognitive therapy is an important treatment in that regard.

So this really provides us with a clear roadmap as to where the road begins. So you have clear targets to engage and corresponding treatments but so again, these efforts are really important in improving efficiency of interventions and the efficacy of our findings.

Why is this important? Why link brain changes and other aspects to behavioral treatments? Why is it important to really study these mechanisms and targets? Well, again, to focus on those is to really systematically boost treatment efficacy by focusing on the most potent aspects of the treatment.

As well as bearing down treatments to their essential elements and increasing efficiency of the element pit so it is twofold, and they are interrelated. If you can focus systematically on improving interventions but also bearing down treatments to their essential elements, think you can really focus on scalability issues.

the other line of research is integrating technology based treatments.as you know, given the global pandemic, the technology, I think technological innovations have really accelerated over the past year or so. Even before that, the patterns were beginning to increase. And so I think the technological innovations to behavioral treatments present expanding opportunities. We focus specifically on digital therapeutics which are not telemedicine. Telemedicine is essentially what we have here, the clinician on one end and the patient on the other providing treatment.

But digital therapeutics are clinical grade software's that deliver behavioral intervention previously only available in the face-to-face interactions. So the digital therapeutic is the software itself, the delivery mode itself. It is actually delivering the treatment.

They are designed to prevent with the intent to prevent, manage and/or treat medical disorder or disease available on various platforms, mobile, web and others. And we see this as an important avenue to serve as adjuncts to in person delivery of treatment. There are a number of benefits to digital therapeutics provide, and I think an offset a lot of the in-person challenges and assistance. Low-cost, it is frequent, longer contact I think with regard to the flexibility of scheduling.

Enters ability to reliably and with respect to quality control of the treatment so you know you're getting the same dose every time. and it is very consistent, and it may be the case where ever digital therapeutics portion of a complete model with care, or you have the digital therapeutic as one part and the in person is another so I think as a complete model of care this could certainly serve an important function.

There is also greater patient disclosure as well as confidentiality especially with regard to stigma. This is a highly stigmatized population. Stigma is one barrier to treatment that many patients that have an association with stigma. The ability to assess progress. Extending clinician reach so on-site visits can focus on other patient needs.

And I think digital therapeutics have two important overarching functions. Above these, I highlighted several of the advantages, but I think one of those happens to be with the maintenance of the potency of the intervention., Ensuring that there is consistent delivery of the content and intervention and the sustainability issue that I mentioned at the outset.

So I think those are clear issues n the digital therapeutics can help to offset and complement ongoing comprehensive treatment bid not to replace the clinician but to assist and provide a hand on some aspects that can be used in that regard. And these are interventions that are highly scalable. This showcases the benefit given the current climate we are in now during the pandemic, the digital therapeutics can have an important function in the role of patient health.

Where do we begin? Where do we stand currently? We currently have a partnership to accelerate these treatment options with the FDA. So we have a memorandum of understanding with the FDA. And this came out of necessity. Given there are a cross health conditions, there are over 300,000 touted digital health options in the marketplace across the board. It is impossible for patients and clinicians to understand and traverse what is good and what is bad. So we really have needed to show a need. And there is a clear need that given the number of digital health solutions needs to be a trusted entity to ensure rigor, reproducibility and that there is scientific merit to these efforts. As some of the efforts have gone on in the past, much of the effort has been focused in the development of technologies.

However, that development has far outpaced the validation studies to show whether these are effective or not. And so, much of the efforts we are focusing on is adding that trusted authority to review the clinical efficacy and usability of digital therapeutics as well as authorized digital therapeutics that are worthy for patient consideration and ensuring it is part of that complete clinical care.

We are focusing on opportunities to help navigate the FDA submission and authorization process. This is a process that is not as if Mike it is developed but not well used as medication. So this is something that we are moving forward to celebrate the progression of these technologies through a regulatory pathway, so this is exciting to provide treatment options for patients and clinicians.

So there is a need to achieve the same level of validation for digital therapeutics as we have her medication. The memorandum of understanding with the FDA is in part to realize that goal.

There have been some key breakthroughs with regard to digital therapeutics for substance use disorder. The first FDA authorized digital therapeutic came from Pair Therapeutics and NIDA funded the efficacy trial, a study that came out of the therapeutic education system. And reSET wasn't marketed to provide substance use treatment as an adjunct to treatments to treat stimulant cannabis cocaine and alcohol use. This is to be used with in person CBT in conjunction to reSET as a paired approach.

In 2018, opiate use disorder reSET-O was approved as medication treatment and what I wanted to highlight on the study, the take-home message here is the retention. You see the level of retention standard therapy + reSET. 80% at the end of the trial, 81 days and then compared to standard therapy, 64%. I would say the trial found significant impact for individuals not abstinent at the impact of treatments that had a greater impact on those not abstinent at the baseline, the beginning of treatment.

So that was very exciting news you have reSET and reSET-O that have been authorized by the FDA.

Another area we highlight is aligning the mechanisms of action I highlighted before and some that Kurt articulated in his presentation, this represents a promising area to clinical practice. Can also improve treatment efficacy as well as synergistic effects between medications and behavioral therapies and the extent to which they interact. There's a lot of interaction there. So the best that we can tie in mechanisms of actions and therapies, we can focus in those synergistic effects. We are well aware of Nasal Narcan and there are potential for interventions to improve the outcomes of medications.

Not just as a standard platform, we have a behavior therapy platform, but really using behavior therapies to improve the outcomes of medication. I think is a significant and valuable area.

Finally, neuromodulation and behavior therapies. NIDA seeks to accelerate the development of device-based treatments for substance use disorders. We also have a funding mechanism that focuses on moving device-based treatments to the next step of the FDA approval process. You can see an overarching theme here we have target engagement as an important focus of that. We want to try to understand the relationship between target engagement as well as functional outcomes.

Behavioral treatments are to be used integrative lae- and demonstrate the effect on outcome measures. And there are some FDA approved examples. Recently the Brainsway Deep TMS device for smoking cessation has been approved about a month ago. DBS for Parkinson's disease and rTMS for major depression. Ongoing studies are currently in process rated but all these programs focus on improving efficacy of treatment as well as making treatment options available to patients and clinicians to provide important care.

I want to end on this point that the interactions with the devices and behavioral therapies are really important to examine the timing, extent and Camilla to the facts of these devices that can have on behavioral interventions.

In closing, NIDA is very committed to the treatment of substance use disorder and research that emphasizes the extra mental medicine approached, to develop, validate and optimize studies. There are several important domains that I highlighted today, including the mechanism of action and treatment targets. Integration of technology. The combination of medications. Anura modulatory devices.

NIDA seeks to have clinically validated treatment options broadly disseminated to patients. That is our -- Our ultimate goal is to provide treatment options to patients. Thank you very much. I will be happy to entertain questions after we are done. Thank you.

>> JACK STEIN: Thank you. Let me take a pause to let everyone know that we are receiving your questions. They are terrific and we will address them in a rapid-fire response after Redonna presents and there's a number of questions related to access and health literacy which we will try to take some of those but I think also some of that will fall into our final panel, which we will do before the wrap up at 2 PM. So stay tuned for that.

Redonna Chandler, welcome.

>> REDONNA CHANDLER: Thank you so much for allowing me to give this presentation. As Jack stated, I wear two hats at NIDA on the directly of the HEALing community study and the AIDS research program. I want to talk a little about HIV and research and we don't forget about this particular issue as we face the opioid crisis and the COVID-19 pandemic.

New diagnoses of HIV in the US continue to occur. We know the transmission varies by different categories, including age, that it is among young adults that have the highest risk. among race ethnicity, African-Americans and Hispanics and also among different types of high-risk behaviors with men who have sex with men having the highest risk. But also injection drug users having a high risk.

And what is not displayed as geography in the US, certainly in the southern part of the US is where you have the most new transmissions occurring. Internationally, we know there's high relative risk of HIV acquisition globally. The data is from 2018 and shows the people who inject drugs are at high risk, really equal to individuals who are involved in sex work around the world.

The opioid epidemic as had a huge impact on overdose deaths, but people may not think about the application it has for HIV in this country. As the opioid epidemic is taken off and transitioned from prescription drugs to other drugs like Fentanyl and has occurred through injection, drug use has increased significantly in the past 15 years and data on the right-hand portion of the slide were

developed by SAMSHA that are still unpublished showing of significant Kleijn in the prevalence of injection drug use.

When you have an increase in injection drug use you have the potential for HIV to spread rapidly among the tight networks of people who inject drugs. This is happened not only in urban parts of the US, but in rural parts of the US like Lowell, Massachusetts.

In terms of how to address HIV risk, we know treating opioid use disorder with the medications that we have is an effective strategy for addressing HIV as well. Improving outcomes for people who are living with HIV, those on medication for opioid use disorder are 69% more likely to enter into ART. They have a twofold increase in anti-retro viral therapies. In a 45% increase odds and having a plasma load that is undetectable which means at that point they are unable to transmit the HIV virus to another individual. While it increases their help significantly, it is a public health strategy because it prevents the transmission of HIV to someone else.

Methadone is an incredibly effective medication to improve HIV outcomes. I point out highlight this because were finding significant stigma against use of methadone. In some parts of the US and in low- and middle-income countries, methadone maintenance therapy is really the most available approach to address opioid use disorder.

Unfortunately, people who inject drugs in the US are less likely to receive antiretroviral therapy. This data while pretty old, tells the story that unfortunately, new data that I saw couple weeks ago that's to be published soon in the new year, continues to confirm that providers are much more likely to defer the initiation of antiretroviral therapy for people that they know are living with HIV, if they are injection drug users.

This slide depicts status showing that they defer treatment until these people actually became quite ill in terms of CD4 counts.

We also know that individuals who are in the justice system and those transitioning from prison and jail are increased risk for mortality due to relapse to opioid use if they are not initiated and provided the opportunity to be on medication use disorder. While road may be low because they are in resin and are being maintained on a medication but when they're released into the community those connections to enable them to get into HIV care become frayed and limited. In the longer people are out the more likely you can see it is that they have high viral loads and are falling out of the care cascade. We had really great news in the area of HIV recently that got covered over by the great news about the great news with COVID and that's a large study demonstrated long acting injectable medication from PrEP this was done in cis gender women in sub-Saharan Africa and compared oral form of medication to long acting cabotegravir and it was recommended the trial and early because the cabotegravir demonstrated such strong superiority.

So the good news about this is it is of medication that is less burdensome and does not require The daily taking of medication, and could therefore be implemented more easily, and to care with people with SUDs especially as we develop long-acting medications for SUD as well. It would be a nice way to be able to integrate PrEP.

Unfortunately, as the stimulant use crisis and methamphetamine in particular grows, we are seeing a big impact on HIV. There was an article that came out recently that looked at -- and found that 14% of men who reported persistent methamphetamine use were newly infected with HIV at 82.5 incident rate which is very high-end concerning.

We are also seeing that men who have sex with men and trans people are reporting a significant increase in substance use. This includes cannabis, GHB, methamphetamines and prescription sedatives. And as I alluded to, data from a very large longitudinal cohort of people living with HIV has found significantly lower rates of the receipt of a prescription for antiretroviral therapy from a provider that knows they are HIV positive if they have a history of a drug dependence diagnosis, particularly if they

are injecting drugs. So clearly a lot of stigma here. And a lot of work that needs to be done to ensure individuals are receiving all the integrated care that they need.

This country has been involved in a campaign to end the HIV epidemic and it is mostly revolving around being able to take to scale and implement the evidence-based treatments and practices that we already know work for HIV. NIDA has been at the forefront of entering both from a scientific perspective at NIH and also from a funding perspective at HHS to make her more widely available. We will be able to end the HIV epidemic if we don't address the unique needs of people who use drugs and have substance use disorders.

This covers all the scientific spectrum from treatment, implementation and treatment science and is embedded in every center. This is not just for the US but around the world we have several high-priority areas. I won't read all of this but for substance abuse treatment providers. There's are things you should consider.

There's a much higher risk of engaging in high-risk sexual behavior but also those injecting drugs, PrEP works to reduce the transmission of HIV both because of sexual activity as well as drug use. We're trying to increase self-testing for HIV among people who use drugs. And for treatment being able to provide support and assistance to your client, to try to make sure they are getting that integrated care to help them fund providers if they are experiencing delays and prescriptions that they go ahead and find a place they can get initiated immediately onto ART. This will help them to continue to do that. Advocacy is especially important for those you might be seeing better just coming out of the justice system, to ensure all healthcare needs are addressed including HIV. And stigma continues to be a huge barrier.

and there are specific needs we need to learn more about from a research perspective but for people who are working with MSM, black women and people that use stimulants to be aware of. And we also have basic science portfolio that looks at immune and inflammatory aspects of immune and

inflammatory implications. HIV latency, pathology and reservoir and understanding the etiology and pathogenesis of HIV in the presence of substance abuse.

Back to you, Jack.

>> JACK STEIN: Fantastic, thank you, Redonna. And thank you to all of our panelists. You're doing pretty good on time so we will take a brief period to respond to a number of the questions that have come in. And then we will move into our part two. So again, thank you for your presentations. And thank you to the audience for some terrific questions.

Let's try to do this as rapid-fire. We apologize if we do not get to all the questions, but we will follow-up in writing with our colleagues at NAADAC.

First, point of clarification, a couple of questions came in around why is no one talking about alcohol? There's an entirely separate Institute we work closely with, NIAAA. but that being said we can certainly bring those issues and to our discussion because polysubstance abuse of course is extremely significant for

One question asks about, what is the impact been on alcohol use during COVID podargid analysis, we have learned that their has been at least a 50% increase in sales that at least in several periods of time compared to last year at this time. I'm not sure if any of the panel is aware of the other extent of the alcohol issue but that is one thing I would like to toss out, just to make sure we are not ignoring and obviously important substance.

>> JENNIFER HOBIN: I can add there were couple of papers published on this, one in September the found frequency of alcohol consumption is increased overall, if for women and adults in the age range between 30-59, people are consuming more alcohol per month.

Another paper published found that participants reported being struck by this pandemic, they concern more drinks over greater number of days.

>> JACK STEIN: Thank you. Will and Kurt, there was one person curious about how might they talk with folks at NIDA about participating in some research, particularly in therapeutics that they have been involved in, believe it is more in the digital side. Will and Kurt, some guidance on how to get into the research enterprise at NIDA?

>> KURT RASMUSSEN: They are welcome to contact me at any time. And Will is the right person for digital therapeutics. He's been leading that effort.

>> JACK STEIN: The NIDA website will have everyone's email address or contact myself or Jennifer and we will get you there. Well, one of the questions is, is digital therapeutics the wave of the future?

>> WILL AKLIN: Most of the digital therapeutics out now, the fundamental science comes from decades of research so this is not disputed. The therapeutic education system has been supported among a number of populations across a number of endpoints and the data are compelling. So Pair rebranded the research itself so it wasn't something that just came out of thin air. An extensive track record of research showing why this is important behaviorally. Digital therapeutics is one way to scale interventions that have not been scaled in the past or provide an adjunct of treatment that many clinicians today can use.

So I see this as a complete model of care or have the potential to support such a model so I think that's a great question.

>> JACK STEIN: Thank you. One of the couple of questions emerged which may be a bit out of the NIDA realm but is important to hear and I will introduce it when I speak with Jessica and Phil but it has to do with reimbursement access issues, across the board for their many concerns around what exists around racial and ethnic and geographic demographics. So I want to open that up for her comment. I think the HEALing community study is important because health literacy was one of the issues but so welcome any comments about that but we can transition into the next panel and talk about challenges of implementation.

>> REDONNA CHANDLER: We see the lack of high quality care for substance use treatment and HIV particularly in the southern part of the US.

You see it most prominently in communities of color, African-Americans and Hispanics particularly. the HEALing community study as Jack said is a study conducted in 67 communities in four states. And we've looked at our baseline data, while between 2018-19, people got excited about a decrease in opioid - related overdose fatalities not realized across all racial and ethnic groups, what we found in our communities is that decrease, the benefits of that was predominantly among white individuals, while rates of overdose the tallies went up significantly in African American and Hispanic communities.

This speaks to the fact that whenever you are looking at a communitywide strategy, you have to ensure that you are reaching out there to people that may be segregated into distinct neighborhoods or parts of the community and that you are trying to address their needs with the HEALing community study. We've had to do a lot of translation of many of our products, into Spanish to be able to inform individuals about evidence-based practices particularly around medication for opioid use disorder.

A communications campaign is a part of that study and so help literacy is included in that and our communications campaigns are not only directed toward patients but also toward providers and provider family members that support someone in trying to get into treatment or get access to medication or stay on medication for opioid use disorder.

In terms of reimbursement, CMS has done some innovative things in this space particularly around opioid use disorder read you may reach out and see what is happening within your state. They've had these different innovation platforms. People can come in and request different reimbursement structures and changes that are made to address the opioid crisis in particular. I do not know whether that is expanding, and we see stimulants go on the rise or not but I do know that SAMSHA is allowing some of their funding for opioid use disorder to jointly address stimulants as well.

Said Jennifer may know more about some of those things.

>> JACK STEIN: Let's pause because we will need to wrap up this discussion, but I want to carry these themes into our next discussion. Redonna, there was just an inquiry and in querying so were going to make people aware of the HEALing community study. This is a super interesting and very important -- it is our largest study in the opioid crisis.

Let's do a 15 second final, one thing you would love to make sure that the drug treatment Council community is aware of, from your perspective, as our final wrap-up. Let me start with Kurt.

>> KURT RASMUSSEN: Sure, I want people to understand there are a number of things in development, an exciting collection of compounds at different stages of the development, of the drug cycle. And novel potential medications are coming soon and we are very excited about that and doing our best to get them out to you.

>> JACK STEIN: Will?

>> WILL AKLIN: I think Kurt hinted on it read Kurt started about three years ago, his objective was to think bold and so the division as a whole has moved things a lot faster rate accelerated things faster and from the behavioral standpoint the digital therapeutics aspect, we took an honest inventory of the efforts that we had. And we really focused -- listen, a lot of these of gone on to development, let's move forward in a regulatory way so the partnership with the FDA is one that I think it will yield important products, that I think the participants on today's panel could make use of and help patients.

>> JACK STEIN: We will follow up on some questions dealing with regulatory and telehealth issues as well as is NIDA exploring alternative therapies that we haven't discussed. We will follow up more with you on that. Redonna, final comment?

>> REDONNA CHANDLER: 100% of your clients were not HIV intervention, testing, prep or antiretroviral therapy. To be a part of improving their health and the health of their communities and the public health of the US, and ultimately ending the HIV epidemic. You can do it. We need you.

>> JACK STEIN: Jennifer?

>> JENNIFER HOBIN: I would just say to the community, NIDA is here and are a resource for you and we would love to hear from you. If there are resources that we can provide and it's an opportunity for partnership would we want to research to serve the practitioners to the extent that you can inform us to what your needs are and what you need to know I fact that is valuable and we can take that back to the program staff.

>> JACK STEIN: Perfect. Thank you all, let's say goodbye to you all, you are welcome to stay on the line for the final session but thank you all for your presentation and we will now move, Samson, to

hearing Phil and Jessica, so we will hear from Phil Rutherford, the chief operating officers of faces and voices of recovery and Jessica Hulsey , CEO fry the addiction policy form, both extremely wonderful friends and partners of NIDA over the last few years and we turn now to really hear from the people in recovery, family members, people in treatment or people in need of treatment are expensive. So welcome both of you. Phil, you want to kick things off?

>> PHILIP RUTHERFORD: Thank you for having me and I will start with a confession. My confession is that I've been doing a lot of Zoom meetings in this format is not -- Zoom as facial smoothing technology and when I look at the camera, I have aged 10 to 15 years, so I apologize for aging so suddenly.

>> JACK STEIN: You're looking great, thank you.

>> PHILIP RUTHERFORD: I'm the chief operating officer of Faces and Voices of Recovery. For those of you who do not know who we are, well we are first and foremost an advocacy organization, advocating for policies supportive of peer recovery support services, training and technical assistance. It was interesting to hear moment ago talk about data products. I believe we have the largest national curated collection of peer recovery data as it pertains to outcomes of what happened to people in peer recovery support services.

I'm here today to talk about the data collection and focus group work we did with recovery community organizations through our group. And we run an accreditation process for recovery community organizations around the country.

They make me show this slide, it is a pretty slide of our brands. So in case you see them you will know who they are.

in July, I received-- I talked to Jack and we talked about -- and we had been talking about what was going on in the recovery community specifically around COVID could be talked about two things. What is going on. What are the effects of COVID in the recovery community. And what is the general appetite for vaccine or what do people think of it.

There is a lot of information I have to present, and we called them "duh slides" slides because it's information that you are in the field and you probably already know this information. But some things came up that were fairly interesting. I think first and foremost what happened and what we were seeing in our community centers around the country of which there are about 150, we are saying a falling off of people in recovery and there have been a lot of challenges with people getting to recovery support services.

There are multidimensional difficulties with people suffering from substance use disorders read some of the layers or intersectionality of these problems, we've already addressed today. But access to those services is one of them.

One thing that we did see big pictures that people that had more stable support to begin with were able to maintain support but those who did not have that support or had other compounding problems seem to evolve more quickly.

The basic stress associated with COVID cause problems.

We did some focus groups. I will give you some direct information from the focus groups. And there's something also that goes on in all places but recall it anec-data. Anecdotal data. So we made sure people were representative from the recovery community and we did survey questions and polls and collected a lot of data.

We asked questions and asked them to tell us about their experience in the healthcare system. We asked them to tell us about their experiences with providers, with COVID rate if they were ready for the vaccine which produced very interesting answers. And we will probably get to a Q&A section later we talk about some differences between answers we conducted this in September versus answers now. And then just in general how people in recovery approach health during the pandemic.

Here are some charts I apologize for some of them being small. We tried the best we could to get somewhat representative sample. And we ended up in our populations -- they were somewhat close I think we underrepresented or under sampled the LatinX community. We got decent sampling from the black community. Gender for recovery community organizations this is about average for what you see walking through the door. Obviously depending on geography. And we obviously underrepresented West Coast. I was happy with our demographics from age.

We felt like we got a good mixture there.

Here are some of the "duh" charts, so people in recovery on average visited, before the pandemic, were able to visit their providers more. Once the pandemic occurred, they were able to visit less. I think one of the interesting components is the advent of telehealth services and -- I know you will get the slides; I will not go through every piece of information. But I'll say there is an interesting split within telehealth and access to telehealth services because one of the things said about the recovery community is it has been troubling that people cannot get recovery meetings, or they cannot get directly to the services but thank goodness for telehealth.

And that is true. There is some truth to that but we did see that it was sort of each according to his own gifts kind of thing. That people with stable Internet and frequent access to data or consistent access to high-speed data, cross a socioeconomic spread, those people were all a lot more, made better use of telehealth services. But there were still people in marginalized communities or communities to experience marginalization that did not benefit from that.

Yes, telehealth group and was of use but dependent on who was actually we are talking about, that determined whether telehealth was improving their services. Or improving their overall recovery.

Recovery meeting attendance, this also -- obviously, if places are shut down or closed, the meeting locations associated with them are not available as much bread so attendance is down. There's about a 50-50 split on whether the virtual meetings were effective and there were not as many concerns around security it's surprising to me, I am a person in recovery, I thought when this started there would be a lot of concerns about security and anonymity. That seemed to the window early on. There wasn't a lot of, there weren't a lot of people working about. They were more concerned if they could get into meetings. And that some of that anecdotal data print so I can't say if that's true nationally but what I heard was that was not really a big concern.

Let's talk about the confidence in the vaccine. That was a great spread. And I apologize there was a chart here that was a good example of how you can light with chart. There was a chart there that says, is there confidence in state-mandated safety measurements and is an 83-17 split but the 83 looks like 67% so I don't know if something happened in the PowerPoint slide but that is not, it does look like a 3% but there actually was a reasonable amount of confidence in the safety measures around COVID.

There is also a good measure of confidence about the vaccine. There is not as much confidence overall about the safety of taking the vaccine itself. And I saw a really wide variation here. I think this particular -- this particular component of the data -- so we had three focus groups. You could almost draw a straight line from geography and political affiliation to opinion of safety of vaccine. And that was sort of the unfortunate part. The folks in urban centers at a little bit more openness to the vaccine and the folks in rural environments seemed to not have as much openness to it. So that part was as you would expect.

So here is the short version. Overall, there was some positivity towards the vaccine. Everyone knew someone or was someone that experienced difficulty in maintaining the recovery during the time. I think in general there was good discussion in the recovery community, as many of you know, is pretty resilient. The nature being in recovery means you have some resilience. So that showed through.

In general, the groups that have some faith in the healthcare system. But we did see, at the time we did see politicization of the pandemic grid I mentioned earlier there was a then and now thing. Most recently the dialogue around the vaccine and the pandemic seemed to change inner dialogue with recovery community organizations around the country. This seems to be a softening of opinion about ... about the outlook which seems to be more positive than it was a few months ago, which is fascinating given the numbers look more grave than they used to.

I think in summary, all the groups did have willingness to adopt the vaccine, participate with healthcare, and in general, affect there was a willingness within the groups to do what needed to be done. That is all. There's one more thing that the marketing will make me do to see our logo. I assume we are doing questions at the end.

>> JACK STEIN: We are pretty and now I will turn it over to Jessica and thank you Phil, the theme and we are getting questions coming and it continues to be access with a movement towards telehealth. The challenge is that not everybody has easy access to telehealth capabilities, Internet etc. It is just across the board a theme so Jessica will probably comment on that and collectively we can discuss more about that. And a point of clarification, someone asked the difference between RCO and ROSC -- it is community recovery organizations and its recovery organized systems of care develop the number of years ago.

>> PHILIP RUTHERFORD: That is correct.

>> JACK STEIN: Jessica, welcome. You've got the mic.

>> JESSICA HULSEY: Great.

I'm with addiction policy form and I am glad and grateful to be invited today to share perspectives from both patients and families, caregivers.

A little bit about addition policy form. We represent the full gamut between patients, those in recovery and those with an active use disorder, those in treatment, families and we, the terminology we use our individuals and families impacted by addictions with families with a loved one struggling in recovery and those who have lost loved ones to addictions. We have practitioners and stakeholders and folks on the ground in all 50 states. We help families in crisis including patient say in caregivers and research and helping to advance and be the bridge for prevention treatment and early intervention and translating a lot of the signs to make it more accessible to our community.

And then we work around ending the stigma around addiction which is a big priority for us as an organization. Someone else has to advance my slides. We are excited to work with NIDA this year on two patient led research projects to include input of voices from patients and caregivers.

>> SAMSON TEKELMARIAM: You actually have control print somehow at work but it is all yours if you just click on the slide with your mouse, you can do that.

>> JESSICA HULSEY: I switched computers to hopefully make it easier, so that work. Thank you.

Our first projects released in June, the report, we interviewed or we did a survey of 1079 individuals. Between April and May. A pretty short window so this was a rapid cycle feedback loop for NIDA and were also really excited that the results from this were published in the Journal of Substance Use Prevention Treatment with our research partners. We really want to translate what is happening both

to our families but also to the scientific community. We found the respondents for the project were 73 percent from patient perspectives. Our community identifies with multiple categories.

We had 11% currently using substances, it is important to usTo ensure we also provide a voice with those with an active use disorder and then read 8% in treatment. I wanted to highlight this just because I think Jack mentioned this earlier, but 2/3 of our individuals in the patient category struggle with polysubstance use disorder. Not a single substance that is a problem. So I think it is an important reminder for us. We dug down to the substance by category, alcohol was most prevalent at 66% followed by opioids and stimulants. In terms of findings. I agree with Phil that this is in the "duh" category but there is disruptions paid 1/3 reported disruptions or changes to the treatment. Some were using telehealth services and curbside pickups. Take-home doses etc. but large amounts of disruptions.

By far, the largest negative disruption shared with us -- and we collected both quantitative and qualitative data in this project -- was the disruption in recovery support services and recovery meetings. It did not work as well for everyone. As been learned through this process this year that I think it is important that we do not group telehealth with recovery support that goes online. They are not the same and the disruptions there can be felt differently among the patient community.

Here is -- we know this from some of the data that is coming out but these were interviews in a survey of our patients in March and early April. They reported not only increases in relapse but overdoses, particularly in this southeastern region which really came from the number reported in West Virginia.

I think patient perspectives and caregiver perspectives in our real words invoices are important to share. One of my favorite ones, I didn't include it in the slide.

[Changing captioners]

I lost my daughter in 2017 from an overdose. My grief was enhanced by this COVID. Many have died from overdoses. I've started using again. I know some people who have started using again after multiple years of recovery."

We have also learned that many individuals with many years of recovery are surprised with the toll COVID has taken on their recovery status and support. Meeting attendance, accessing certain social supports, they are really feeling the weight of that on their recovery status.

We are also really excited that we could work with Jack and NIDA to do the same work Faces and Voices did, connecting this fall with our community on vaccine readiness.

We went with interviews over focus groups because it's very personal information, and some of our initial discussions, we only used patient perspectives for this study, but they really wanted a one-on-one conversation with us, to not feel embarrassed or influenced by some of the other participants. There can be lots of variance in health information you trust. So we did 87 individual interviews.

I think there are some similar takeaways, but overall, we found that just over half, at 53% would be willing to take a COVID vaccine. Some say right away, at 45%. But 8% said they would wait until a later date to see how the first round goes. Then we had equal parts outright "no" and "unsure." There will be some shifting there, but not as much as we would like to see.

This is sort of the same you saw, or similar to some of Phil's data, but we have also seen trust in healthcare providers change over the course of the pandemic, sort of reducing. I think the good news, or the positive in this, is that the sources of information that patients rely on is overwhelmingly at 80% their own personal healthcare provider. So your personal physician is an important messenger for information for COVID, the vaccine, and healthcare recommendations. Family was 17%, and television and newspapers at --

[On screen.]

A few quotes. I like to make sure we share some of the direct feedback from folks. We heard on the initial study that 20% of respondents said they have increased use. There has been a negative impact on their recovery.

A couple of thoughts more pragmatic on what we learned from our population, "my biggest triggers are quarantine and isolation. It was like jumping into the lion's den. I relapsed during the pandemic, and prior to that, I was sober for a year-and-a-half . . ." [Reading.]

The disruption of services and what that means, and also working through isolation and boredom. These are triggers for relapse. Activity and pro-social engagement is important for individuals in recovery, making sure we are building that safety net when things are cut off so we can support people.

Again, I mention that anxiety, stress, boredom, and isolation, understanding what disruption means. And the real take-away for us is not lumping eRecovery services with telehealth. When you have a one-on-one conversation with a physician, and you are receiving telehealth, this can be a positive experience in recreating what you get in a meeting, from yoga, etc. Whichever pro-social network is part of your recovery foundation.

Quickly, a few of the things we have done this year since this began is to use digital therapeutics. In March, we deployed both HS and CBT for CBT. Both NIDA-funded digital therapeutics with evidence behind them.

We put a little over 300 patients on the digital therapeutics. We are expanding that to 5000 individuals in 30 of the 50 states to make this also high-risk, high-need, being able to access digital therapeutics. The results and the feedback we received, there are ways we can use the amazing digital therapeutics

that have evidence behind them, making sure we plug them in to build this safety net. That is incredibly important.

Relapse numbers and overdose numbers, we know they are not going in the right direction. But also making sure family members have additional support to engage loved ones. In August, we released a guide for families, we are working on a workbook, we worked with addiction counselors and psychologists, etc. to build more resources for families who are struggling.

I think it's important that we don't leave out the families in the safety net construction that we need to do. Because they are looking for more resources. They are bearing the brunt, trying to connect individuals who are struggling during the pandemic with support and resources, and it feels very isolating out in the community for them as well. So that is another priority for us.

I'll cut it there, Jack, so we can do Q&A. But I wanted to put a placeholder there for a few things we are doing that are priorities for our community.

Jack Stein: Great, thank you so much. We have a few minutes. I received a poignant question: Do we have any information about drug treatment counselors who are also in recovery? The comment was made that the person was familiar with a number of people that these folks have in fact overdosed or passed away. It's a population that is important to many of the people in the audience.

I'm curious if either of you have experience with that issue.

Jessica Hulsey: We have heard in some of our studies this year, from the folks we onboarded, we had some folks who are providers -- counselors, physicians, nurses -- who are struggling. I think making sure we make space and use these same solutions for those in the provider space. It's even more stressful in

the pandemic when you play these roles, and they are so necessary. So anything we can do to be a resource or support at Addiction Policy Forum, to make resources available to counselors, we are all in.

Jack Stein: Yeah, thanks. This is a critical theme. Both of you highlighted the emotional impact that the COVID-19 has provided. Even with the advent of the vaccine, we will continue to experience that. Being aware of that is super important.

Both of you can do something that we can't on the NIDA side. You are both advocates. So many of the questions that have emerged the entire two years -- what can we do more? What can we do better? That translates into some of the advocacy that needs to occur. That is being done in partnership with other organizations.

Any comments? What are the most immediate advocacy needs out there?

Phil: For me, it's direct policy with lawmakers around funding. Specifically peer work is chronically and historically underfunded. One of the things we do at Faces and Voices -- it's interesting there was a question about a recovery-oriented system of care -- a lot of times when I talk about substance use disorder to policy makers, they say, "We fund treatment all the time." Treatment happens within the frame of recovery, and it's very important, but there are peer recovery services that are incredibly important as an adjunct to that. Talking to policy makers around funding for peer support is very important. And for family as well.

I can't speak for everyone, but my family absolutely needed support as well.

Jessica Hulsey: From our perspective, a few of the advocacy priorities, we need to double down. And I'm worried as we are all focused on COVID-19 and a new epidemic or pandemic, I worry that we make

sure and ensure that we don't miss the mark on focusing on the opioid epidemic and the increases in overdoses that we see in our community.

We saw with slides we presented earlier -- it could have been my earlier webinar -- but the jump in overdose rates month by month during the pandemic is heartbreaking. Especially in organizations that help families who have lost a loved one.

We need to double down on resources, on funding. We need to expand access to medication for addiction treatment. And we need to tackle the stigma against medication for addiction. We know our patients have improved survival rates with opioid use disorder when they can access MAT.

We also need to double down on syringe service availability. We are seeing disruptions which worry us. We have increases in infectious disease across the board in our community. I think improving support for families is a high priority for us, making sure we have more naloxone available as we sort through the head-on collision of two epidemics at one time.

Jack Stein: I'm going to need to turn things over to Samson in about a minute or so. There were a couple of other questions that came in, and we will follow up. Many have to do with resources for the care provider. Both of your organizations do a wondering job of that.

As we wrap up, I will ask you the same question I asked my earlier panel: Final thoughts you'd like to have the counselor audience leave with from your perspective?

Philip: My final thought is to leverage peer recovery supports in your area. Who are they? If you don't know, find out. We are a great resource at Faces and Voices. Connecting patients with boots-on-the-ground peer support resources is great for overall recovery.

Jessica Hulsey: I have two primary thoughts for the counselor community. One is to pay attention with your patients about that social connection piece. I love how great a job NIDA does to explain this in the prevention area about how important proactive factors are for young adults. Looking at pro-social engagement and attachment as two critical factors. If either are disrupted because of the pandemic, talk through alternatives to that, and don't discount that pro-social piece as being such an important factor in their overall health and strength.

The second piece, I think that discussing coping skills and a relapse plan or trigger plan to really dig in specifically to isolation, stress, and anxiety pieces is so important with the patients we are working with today. We are social creatures as humans, and it's particularly important for our patients. Using some of the resources -- whatever they are using, whether it's a HALT plan -- hungry, angry, lonely, tired -- there is a lot of that going on in 2020. We need to inform the community to make sure they are ready to protect themselves and be prepared for the struggles that happen at times like this.

Jack Stein: Thank you so much for joining us today. I will turn things over to Samson, but I want to thank the audience for your participation. Check out the NIDA website, drugabuse.gov.

Samson Tekelmariam: Thank you so much, Jack. Presenters and panelists, thank you. This was incredible. Extraordinary how you brought together NIDA and the Addiction Policy Forum, super relevant information that helps advance, information, and support the addiction profession. "Support" is the word right now.

After this event, you can go to the same website you used to register for this webinar and access the online CE quiz. You can click the link for CE Credit. Then you can access the online CE Instructional Guide.

Here is the schedule for our upcoming webinars in 2021. Really interesting topics and great presenters, just it today. We have Self-Care for Uniquely Stressful times . . . [Reading.]

For those who completed the programs for clinical supervision and military culture, we will have one on wellness and recovery, and another on the ethics code next year. We will add more resources to build cultural competency and humility in the addiction profession. And our COVID-19 resources page, where eventually this webinar will live as an additional resource.

NAADAC is here to support you. We are honored to have these panelists. This is our last webinar of the year in 2020. It's been very rough, very challenging for many of us. We have incredible recovery partners throughout the world. Hopefully, I can speak from each one of us. We are really honored to serve you and the work you do to treat this disease. If you need anything, email naadac.org. Connect with NIDA, as Jack mentioned. You can follow us on Facebook, Twitter and LinkedIn to find out more about how to advocate for the clients we serve.

You can let us know how we can continue to improve your learning and professional development experience. Have a wonderful day. Happy holidays and an excellent New Year.

[End of webinar]