

NCJTC- Fox Valley | Opioid Addiction & Medication Assisted Treatments (MATs) for Tribal Communities

Welcome to Opiate Addiction and Medication Assisted Treatment, presented by Dr. Anjali Nandi. My name is Greg Brown, and I will be moderating for you today.

Today's presentation is part of the webinar series for the Bureau of Justice Assistance Comprehensive Opiate, Stimulants, and Substance Abuse Program and the Indian Alcohol and Substance Abuse Program for Coordinated Tribal Assistance Solicitation purpose area three, grantees and nongrantees focused on responses to alcohol and substance abuse-related crime.

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So let's try our first poll question. The question is, which of the following best describes your role? The responses for today are as follows-- victim services or victim advocate, about 10% of our audience. Probation and community corrections, 24% of the audience. Law enforcement, 15%. Child advocacy center, social worker, and mental health, 35%. And 16% are from other professions.

I'm pleased to introduce our presenter, Dr. Anjali Nandi. Dr. Nandi is an associate with the National Criminal Justice Training Center of Fox Valley Technical College. She is also the chief probation officer for the 20th Judicial District for the state of Colorado. Additionally, Dr. Nandi is a published author, having coauthored nine books.

Kevin Mariano will also be providing his expertise on today's webinar. Kevin has over 20 years of law enforcement experience and serves as the chief of police with the Pueblo of Isleta Police Department for over seven years. Kevin is currently a project coordinator at NCJTC.

My name is Greg Brown, and I will be moderating today's webinar. I'm a program manager with the National Criminal Justice Training Center and worked in probation for about 31 years. Anjali, the time is now yours.

Thank you, Greg. And welcome, everyone, to this conversation on opioid addiction and medication-assisted treatment. The place that I would love to start is by talking a little bit about addiction in general. And then we'll get quite specific and talk about opiate addiction. We've done a few webinars lately where the focus has been on addiction and the brain.

And we've received incredible questions, really insightful questions, curious questions, questions that I think in some ways really should guide how I present during the webinar. So my commitment is to stop talking in about an hour so that we leave enough time for your questions. So I say that right now so that you can be thinking about the questions and putting them into the chat box so that we have a robust number of questions to choose from.

So let's start with talking about addiction. We know a lot more about addiction now than we did even 15 years ago. We know that it is fundamentally a brain disease and that we can treat this brain disease.

And by saying that it's a brain disease, what I mean is that we know that somebody has an addiction when they have experienced neurological changes in their brain. So when you look at a brain of somebody who is addicted to a substance versus somebody who isn't, there is a difference in the structure of the brain. And I'll talk a little bit about that in a couple of slides.

It is also a chronic issue. Addiction is a chronic issue, meaning that it's not acute. And that tells us that because it's chronic, meaning over a period of time, we need to think about treatment as not an acute issue, but a chronic, ongoing, supportive thing that people need when they're addicted to substances. We shouldn't believe that once you provide somebody nine months of treatment or something like that, they're forever done with thinking about anything treatment-related. So it's chronic. It's recurring.

And people do relapse. And by that, I don't mean that relapse is necessary or that everyone will relapse. But that relapse tends to be something that people encounter when they're struggling with addiction. And that it's not a failure of theirs or a failure of treatment, but it's information that some things may not be working. And we might need to tweak certain things.

Addiction is characterized by intense craving. So maybe you've all experienced craving for something. I routinely experience craving for chocolate. But craving is this intense desire for a particular substance. And that craving actually happens in our brain. It's certain centers of our brain that light up when we're experiencing when we're craving something.

And for those of you who have never used alcohol or drugs before, it's really hard to fathom the intensity of craving in addiction. So it's something to think a little bit about. It's not an issue of strong enough will to manage the craving. There's definitely some support that the brain needs in order to manage craving.

So it's characterized by craving. It's characterized by drug seeking. And people continue to use despite some pretty significant negative consequences.

Now, very often you'll hear people saying, well, why can't they just stop? We've taken away their freedom. They've lost their family. They've lost their livelihood. Why can't people just stop? And negative consequences have to do with a particular understanding in our brain that if I do something today, tomorrow I will experience a negative consequence.

That cognitive process is impaired for people with addiction. And therefore they are unable in the way that you and I might be doing-- they're unable to discount and think about the future. They discount the future so incredibly that they will take the present instead of anything in the future. So I'll take my drug of choice now for my freedom tomorrow. So it persists despite negative consequences.

And we call the behavior an addiction when it's harmful. So I'm very passionate about lots of things in my life. And I wouldn't call them addiction, even though I will sometimes say, oh, gosh, I'm addicted to this, that, or the other, because that behavior is not harmful. When that behavior becomes harmful by some acceptable standard, some societal acceptable standard, or it's impairing the way I get to work or fulfill my obligations, then we're talking about something different.

So addiction is harmful by some acceptable standard, and it's diagnosable. And that means that we have certain diagnostic criteria that allow us to talk about whether somebody has a substance use disorder or not.

So let's delve a little bit more into the brain. Our brain is made up fundamentally of two really important structures. There's a structure that's really core and old in our brain. It matures early in life. And it's called the "limbic system."

And this limbic system-- it houses our reward circuitry. But it's also our fight-flight system. It's the system that keeps us safe. It helps us survive. It tells us when to run, when to hide. And it houses our big emotional reactions.

The limbic system processes everything we experience in the world first and then sends the information on a relay to the frontal cortex. The frontal cortex is our thinking brain. The frontal cortex can think about consequences, can look to the future. Our frontal cortex can problem solve and look at pros and cons of different decisions. It is where our executive functioning lies.

So when we have our limbic system and our frontal cortex, in an ideal world, the limbic system processes information and sends it to the frontal cortex on a particular relay, like I was talking about. In addition, that relay gets hampered. And we get stuck in our limbic system. The limbic system becomes a rogue system. And we lose the connection. We lose the support of the frontal cortex.

So this limbic system becomes kind of this rogue system. And we are unable to then access our frontal cortex and think about the consequences. We get stuck in survival mode.

So this is important because when we talk with people who are addicted to substances, we often ask frontal cortex questions. And really what's happening is they are responding from their limbic system and therefore not able to answer our questions.

So I'll give you an example. There are times where I will ask a client, so what were you thinking? And I ask that question with no judgment. And yet when the client tries to respond, they look at me, and they say, I wasn't. And that's the truth. They weren't. They weren't using that frontal cortex.

And if you're having a hard time relating to this, maybe we can take an example that's more relatable when you've been stuck in your limbic system. So maybe think about a time when you were extremely angry. You were angry about something. You were so angry that you're kind of stuck in your limbic system. It's hard for you to make rational decisions. And you do a certain thing. Right? You engage in a certain behavior. Maybe you throw something or you say something pretty harsh.

And then finally, when your frontal cortex comes back online, you wonder, gosh, why did I do that? How could I ever have done something like that, right? You were irrational. You were working out of this fight, flight. So imagine when you're addicted to substances you're living in that zone. You're living in the limbic system. And the frontal cortex-- yes, it's still there. But it's quite hard to engage, particularly if you're triggered or you're craving.

So one of the chemicals that lives in our reward circuitry that's housed in the limbic system is dopamine. And dopamine is essential for our survival. So I want to spend a little bit of time talking about dopamine, particularly when it comes to opiates.

So dopamine-- like I said, essential for our survival. It helps us get out of bed. It helps us be motivated to go to work to do our jobs. So motivation is really key. Dopamine is what gets released when we are attempting difficult tasks.

So, my daughter, I have a teenage daughter. And she and I have been hiking since she was much,

much younger. And where I live in Colorado, there are these really tall mountains that we call "fourteeners" because they're over 14,000 feet high. And she likes to climb them. And so we hike up a fourteener.

And I promise you, the whole hike, she complains. Every step of the way, she complains. And sometimes-- actually, not sometimes. Every single time, without fail, she cries on some portion of this long hike. And sometimes it takes us eight hours. Sometimes it's taken us 13 hours. But every time, it is a painful experience. And I ask myself, why are we doing this?

But as soon as we get to the top, the expression on her face, the kind of gratitude that she has, but also the sense of accomplishment, is beyond belief. And she lights up. And she says, we've got to do this again. And that's dopamine, right? That motivation to keep going, the confidence to do it, the pleasure from it, the feeling of being connected to me while she's doing it, chatting with all of the people as she's walking out. The people will say, oh my gosh You're so young, et cetera right?

So that belongingness-- all of that is dopamine. And dopamine gets us into trouble because every single time, she says, we've got to do this again. And like an idiot, I say, OK, kiddo. We'll do it again. And then we sign up for another one of these hikes. And we cry the whole way up. It's torture. But then we say, oh my gosh. We have to do it again right? So that's a very simple example of the power of dopamine.

But dopamine is such an important chemical because it's not only about motivation. It's also about pleasure. It's about connectedness. But it's also about memory and learning new things. This is important because in order for us to learn new skills, we need dopamine to be present. We need dopamine in our body to be present so that we can start to remember some of the new skills that we're learning.

So dopamine is implicated in all kinds of different substances. And by that I mean that our bodies interpret many different substances as dopamine. So we produce a certain amount of dopamine. We call that "endogenous dopamine," dopamine that we are producing, our bodies are producing. And usually, that ranges between about 50 nanograms to 100 nanograms per deciliter. That's our range.

So let me sort of slow that process down. A normal day, normal functioning, is about 50 nanograms. That's the day that you get out of bed, and you do your day no problem. That's normal.

If you're having a really low-dopamine day, maybe 40 nanograms, what happens is you're not getting out of bed. You're calling in sick. Or maybe you're having a mental health day. Or maybe you do throw

yourself out of bed, get to the office or get to wherever you're going-- or these days, just get to your computer-- and then you really wish you weren't there. You have no motivation for the day. That's a low-dopamine day, so about 40 nanograms.

Our best day-- let's say we won the lottery. We are going on a lovely vacation. We are looking so good, feeling so good. That is about 100 nanograms per deciliter. So that is our range. Our bodies can only handle up to 100 nanograms.

Unfortunately, when we consume opiates-- or any drug, really, but because we're talking about opiates, I just want to make this point. When we consume opiates, the amount of dopamine that rises in our body rises to beyond what we are capable of even processing. So when we take in opiates, if you had to guess, we go beyond 100 nanograms. And we don't go to 200 nanograms or 300. We go to about 1,000 nanograms when we consume opiates.

And quite immediately, the body wants to bring us down to homeostasis, which is that normal range. So the body starts to fight to get us back to homeostasis. And we will never again experience 1,000 nanograms because that is too much for the body right? So we start to back away. And the body does-- it goes through certain adaptations in order to manage never having to experience 1,000 again.

And unfortunately for us, what our body does is it stops its own production of dopamine. And it kills the receptor sites that recognize dopamine. So then when we continue to take opiates, we have to take a little bit more each time in order to experience the same impact.

But the other problem is one fine day, if I go into treatment and I am told, I'm sorry. You have to stay sober. No opiates for you, my body's not producing any dopamine. And remember, dopamine was essential for our survival. So if I'm not producing dopamine, and my receptor sites are dead, when you take away my drug of choice, you take away opiates, I'm producing somewhere in the 20 nanogram, maybe even 30 nanograms of dopamine, which is not possible to support motivation, to support connectedness, to support memory and learning, to support pleasure.

So you will notice this-- that for the first probably three, six months even, when somebody is early in their sobriety, they struggle so incredibly much with even being motivated to get out of bed. And my hope is this conversation around dopamine helps you understand why.

So we could spend a lot more time talking about dopamine. But I imagine that I've bored you all to tears. So let's talk about another interesting thing, which is craving. And I had said earlier when we first began this conversation that the relative size of craving for drugs or for alcohol is way bigger

than the size of craving that you and I have ever experienced for, let's say, water or food.

So I have a poll question for you all. Let's say if the relative size of craving for water is the size of a baseball, meaning the power of that craving, the size, the intensity of that craving-- let's just say that's a baseball. And the size of craving for food is a football. What would you guess is the relative craving size for drugs or alcohol? Is it a basketball? Is it a beach ball? Is it four footballs? Or is it even bigger?

So Anjali, it looks like basketball for 9% of our audience today. A beach ball would be what they would estimate about 14% of the time, four footballs 12% of the time. And the big winner is even bigger 65% percent of the time.

Fantastic. Thank you, Greg. And yes, you are right. So the relative craving size for drugs and alcohol is even bigger than four footballs or a beach ball or any of the other options.

So let me share with you a study that was done on craving. And if you attended the webinar on addiction in general, you might know a little bit of this. But there was a study that was done to look at the relative craving size. And what they did in order to do that was they put people in a functional MRI. And a functional MRI is an MRI that looks at the brain and looks at blood flow in the brain. So you know what centers are really lighting up. Where is the most amount of energy or intensity?

And so they first deprived people of water. They got them really, really thirsty over a long period of time, ran running water near them, talked about water. The person conducting the experiment drank water in front of them. So it really sort of tempted them in every possible way and then had them go through a functional MRI to see how much their brain was lighting up in terms of craving water. And it was about the size of a baseball.

And then they did the same thing for food. They talked to people about their favorite food, wafted in smells of their food, talked a lot about food, but deprived them of food for a considerable period. And of course, they were craving food. And the functional MRI showed that compared to water, the craving for food is definitely bigger.

So then they took people who had been sober from their drug of choice for six months and some folks who had been sober from their drug of choice for two years. And they found that at six months and two years, their craving size was the same. So somebody who is sober two years is still craving pretty hard in their brain. The craving centers still light up in the person's brain about as much as some somebody who's been sober for about six months.

And what they found was that the relative craving size, the intensity of the craving, was about the size-- it was bigger than a baseball. It was about the size of a baseball field. So for those of you who are on the call who haven't experienced this intensity of craving, my hope is that this helps you understand why it's so hard when somebody is craving and stuck in their limbic system to make the cognitive rational choices that we would normally make if we weren't craving.

So let's talk now a little bit about opiates more specifically. So opiate use disorder is essentially an addiction to opiates. It's a chronic brain disease, just like addiction is. And it's related to the use of either prescription drugs-- and on your screen, you can see some examples-- oxycodone, hydrocodone, fentanyl, et cetera, or illicit drugs like heroin.

Opiates are really interesting. They produce pleasure. They also relieve pain. And they're pretty powerful. About 2.6 million Americans are affected by opiate use disorder. And it's the leading overdose reason. It's the leading drug that causes overdose and death.

Frequently, people will talk about heroin users. And interestingly enough, people who used heroin started by misusing prescription painkillers. So four out of every five people who are currently using heroin started off with an addiction to prescription meds.

Now, of course, this is treatable. But opiate use disorders are particularly tough to treat. And they have really high relapse rates. Several different studies report different levels of relapse rates. Many report relapse rates as high as 90% if medication is not provided. So combining medication and treatment seems to be the most effective way of treating opioid addiction.

Now, before some of you have a huge reaction to this-- because I imagine there are people on the call who either themselves-- or they know people who have been addicted to opiates who were able to successfully quit and stay sober without the use of medication-assisted treatments. So yes, there are those folks. And when we talk about research, we talk about generalities, right? We talk about averages and numbers. So there are exceptions to every rule. We're not talking about individuals. We're talking about general numbers.

So if we had to be overly generic, we could divide people into kind of two categories. And the two categories would be folks with extensive social support that have access to resources like health care or counseling. And they feel well-supported. They have a lot of support around them.

And then the other bucket is folks with a limited amount of social support. There's a lot of instability in their life, maybe adverse childhood experiences, trauma. They have other factors that are

unsupportive or problematic or other factors that they're contending with. It's these folks, the folks with poor prognosis, that tend to need both treatment and medication. The folks with better prognosis don't often need medication because they have a lot of support around them.

So I'm going to go back to this slide for a second and just take a look at that last bullet. So this high relapse rate and combining medication and treatment as being the most effective way to treat opiate addiction is especially true for people who have limited support, a lack of stability. Perhaps they have trauma, adverse childhood experiences. They don't have certain things that are key for them that would be most helpful or most supportive.

So I'm going to invite Kevin, who's on this webinar-- he's one of our panelists. And he has a lot of experience as a law enforcement officer looking at or attending to people with opiate addiction. And I'm going to invite him in to share a little bit with us about his experience and what he is noticing. So Kevin, if you could join us, please.

Yes. Thank you, Dr. Nandi. From the law enforcement side and for a number of years that I've actually been in law enforcement, we actually have had a number of cases dealing with opioids and other concerning issues. But trying to figure out ways how we can address the issue that we were seeing within the community was one of our challenges. I think one of those was that we were dealing with the individuals over and over and trying to figure out what was the best method or way that we could provide some treatment services other than putting the individuals in detention centers or jail.

We noticed that we didn't have any type of services available for these individuals to reintegrate them back into the community and to put them in the right direction. And that was one of our challenges. So what we were seeing was that if we can provide some type of assistance and understanding the side of the treatment and the addiction more in depth, it really helped us in the direction of actually coming up with a position that we were able to create within the law enforcement department.

And this one position here was identified as a police officer case manager, which was to assist the officers who were out in the field-- that they better understand that there are some treatment services that are available. So what this one position was able to do was to generate some referrals into these services that were needed for individuals that were dealing with some type of disorder, whether it be from opioids or other type of drugs, that they receive the treatment that they needed to get so we don't have to see the individuals again in the condition that got them in the situation and so forth.

But it was really challenging in trying to figure out ways that we could partner up with other programs, whether it be within the community or outside the community. But we were actually able to partner up with a lot of local, I guess you could say, programs and also a program outside the community that really was supportive in our initiative in dealing with trying to provide treatment services to the individuals and so forth.

Thank you. That's really helpful, right because what you're talking about is, how do we as a community address some of the issues that we're seeing? And a little bit later on in the webinar, we'll talk about some of the common misconceptions that folks have regarding medication-assisted treatments. And I'm hoping that some of you on this call also have some worries about it and will share some of your concerns. And we can clarify based on the research and based on what we know whether those are concerns that you do need to sort of keep in the forefront of your brain or whether we have enough evidence to know that we can let those go.

So I so appreciate you sharing that. And I'll invite you again to talk some more in a couple of minutes when we focus on our tribal communities a little bit. So thank you, Kevin, for that.

Let's talk more specifically then, about MAT since we've introduced that concept. So MAT stands for Medication Assisted Treatment. And it just simply means using a combination of medication and counseling. And most often, the times where we are most successful is when the counseling or treatment looks like behavioral or cognitive behavioral treatment-- so when we're combining those kinds of behavioral therapies with medication.

So we know that that's successful. But I want to just clarify some of the goals of MAT. The goal of medication assisted treatments is full recovery. The hope is that we are reducing some of the overdose deaths that occur. That we are improving people's life. That we're helping them stay in treatment. And that when we reduce opiate use, we're also reducing other behaviors that sometimes occur when people are using substances, so whether that's criminal activity or the influence on their employment or their families. So we're not just focusing on them, but the collateral damage that sometimes happens as a result of use.

Medication assisted treatments also help improve birth outcomes among women who have an opiate use disorder and are pregnant at the time that they have an opiate use disorder. And all of these things that I'm talking about here-- we have data on every one of these statements. They reduce the likelihood of people contracting diseases like HIV and hepatitis C.

So let's narrow in on our tribal communities and what the data show here. So it's not a happy story. And it tells us that something needs to be done. We need to be creative in some ways. Almost three times as many are diagnosed with substance use disorders compared to white Americans. So what I mean by that is almost three times as many American Indian and Alaska Natives are diagnosed with substance use disorders compared to white Americans.

Twice as many require treatment compared to any other racial and ethnic group. Our American Indian and Alaska Native population has the highest rates of alcohol-related deaths, higher opioid mortality rates, and unfortunately have lower implementations of MATs. And we have some ideas why. And I'll talk about those as we go through this webinar. But I'd love to invite Kevin to come back in and talk a little bit about, in his opinion, why we've struggled with the implementation of MATs. Kevin, could you join us?

Yes, Dr. Nandi. I think the side of really knowing what MATs is really about and all that. Back in the days, going back years, I myself didn't really know what, actually, MATs, Medication Assisted Treatment services were available or what it really was. But I think through the years, as knowing-- and I think the training really provided a lot of information as to what was available.

And again, partnering up with resources that we identified, such as a behavioral health program and other programs outside the community, really opened up a lot of, I think, avenues to identify that we could work with and also provide some assistance and some services to individuals who were with some type of a disorder. And a lot of this, I think, was educational in a way that-- well, why not provide more training for the officers so that we could educate them a little more about what type of services were available?

Because again, going back to that side of where we saw a lot of the recidivism happening with individuals, these individuals were just coming through the system. But there wasn't really any type of treatment services that were available for these individuals. So the officers were just having to deal with the individuals over and over again and trying to figure out, how can we address these issues with the drugs, opioids, and other issues that are happening within the community?

Well, as far as providing that, I think what was really grateful that we were able to develop was what we call a "multidisciplinary team" to work together and identify all the resources that were available. And through that, we were able to actually provide some training to everyone that was involved that we thought that would be helpful with working with the individuals out in the community.

So education was one of the things that you mentioned, just this lack of knowledge around what MATs

are. And I'm right there with you. When MATs first came on the scene, I was extremely doubtful and worried. I was worried that we were making a grave mistake because so many of the folks that I worked with were struggling. And I worried. Gosh, are we just substituting one drug for another? That was one of the big worries.

So I have a poll question for you all. And I'm interested from our participants. Do you worry that MATs are substituting one drug for another?

51% said yes. 20% said no. And about 29% percent are unsure.

Yeah. Gosh, I so appreciate your honesty, folks. That most of you are worried that MATs are substituting one drug for another. And it's a very fair worry to have. So I'll try and explain this a little bit. And then if I'm not doing a good job of clarifying this particular piece, I would love for you all to put additional questions in the question box so that I can clarify and answer some more.

So essentially, what I will try and explain is the difference between providing a medication and using their substance of choice. So we know that medication assisted treatment-- so whatever the medication is that we're providing-- they differ from the opiates that people are consuming, whether it's fentanyl or heroin or whatever the issue is, in terms of two things, intensity and effect.

So when we provide people medication, we're titrating the dose, meaning we're pretty cognizant about the dose that we're providing. And the dosage is not enough to get a high and not near enough to get the kind of high that the person is used to.

So the goal with medication is to reduce craving and to reduce withdrawal. That's the primary goal. And the secondary goal is to rebalance dopamine because all the substances that people tend to use, whether it's alcohol, opiates, whatever-- they impact dopamine. And for the most part, people's levels of dopamine are pretty low.

And so what these chemicals are doing and what the medication is doing is allowing their brain circuitry to rebalance to rebuild some of the dopamine and then allow the limbic system to calm down, increase the connection with the frontal cortex. So that's the goal of using medication.

Now, yes, they are on a substance, right? That's there's no doubt about that. That they are now using this substance. But I want you to think about this pretty broadly. If we define a problem as being dependent on a particular substance to stay healthy, then that calls into question a lot of medications, right? It calls into question thyroid medication or blood pressure medication or

medication for cholesterol. We're taking all of those medications in order for us to be healthy.

And so that's the rub right here-- is we are helping people become healthy. We're helping them rebuild their brain, rebuild their dopamine chemistry. We're helping reduce cravings and withdrawal. We're preventing them ideally, if MATs are working, we're keeping them from using their substance of choice and, with that, all of the tangential things or the collateral things that happen with the use of their substance, like criminal activity or not being able to show up to work or not being there for their family or developing HIV or hepatitis C or all of those kinds of things.

So fundamentally, there is a difference. And addiction is defined as a compulsive use despite negative consequences, not as a physiological dependence which people might develop to the medications we provide them. But a physiological dependence means needing daily medication to stay healthy. But then that's really similar to individuals with heart disease and diabetes and thyroid conditions and so on and so forth.

So my hope is that that's helped you a little bit. And I just want to reiterate that the medications that we're talking about-- they differ from opiates in terms of intensity and effect. The intensity is not that much. And the effect is not euphoria. The effect is actually reduction in craving and a reduction in withdrawal.

But there are other concerns that people have. And one of the concerns that I had was, should we worry that people will just sell their medications on the streets? I mean, wouldn't they just divert their medication, make some money, and buy their drugs of choice? So here's another poll question. And I would really appreciate your honesty. Is this another worry that you have?

71% of the audience, the attendees, said yes. 18% no. And 11% were unsure.

Yeah. Thank you, Greg. So a majority of you worry about this. You worry that your clients will sell their medications on the street. And you're right. There is that possibility for sure. There are a lot of developments that are being made to these medications to make them less valuable on the street.

And so in more recent research on people taking medication and then selling them on the street, selling them medications that they got from treatment-- that process is called "diversion," or diverting their medication. And in more recent research, diversion is actually not as common as we think. And the struggle is of course we hear about those clients that diverted their medication. And we tend not to hear about the clients that didn't, that actually successfully took their medication.

So you know, it's tough. It's really tough to believe this. But diversion is actually uncommon. And in

follow-up research to find out who the people who bought this medication-- the folks who were buying the medication were buying it not FOR the euphoric effect, but to manage their withdrawal. So it actually happens because people don't have access to ways to manage their withdrawal as opposed to people using it to get high.

Unfortunately, a very small percentage of people who actually need treatment receive it. And so this research that was done on diversion highlights that particular issue. That actually, what's happening with medications that are being diverted is people are using it for withdrawal management versus for a high or to get a euphoric effect.

And I'm sure there are other concerns. And again, I worry. Because this is such a one-sided conversation, I feel like I'm doing all the talking. And I'm worried that I may not actually be answering your concern. Please do put your questions in the question box so I can address it. And I don't mean to say that this is easy or let's just all jump on this bandwagon. We really have to assess people and figure out who needs these medications and who doesn't and to do it in a way where a provider is paying a lot of attention to what's working and what's not working for their particular patient.

So I don't want to make this sound easier than it is. But medication-assisted treatments are used most often in alcohol use disorder and opiate use disorder. So let's talk about those medications. And then we'll talk about what our next steps might be.

So for alcohol use disorder, here are the most common generic medications that are provided. I've also provided their brand names and then what kind of effect it has. Let's talk about the second medication first, naltrexone. Maybe that's one of the more common ones.

Naltrexone blocks the opiate receptors. And therefore, when you're consuming alcohol, you don't actually get the same high. You don't get the same feeling of intoxication because it limits the reward circuitry. But because it does that, it also limits craving. So it's a really interesting drug, naltrexone is. And naltrexone will show up when we talk about opiate use disorders as well.

But I wanted to talk about naltrexone because it works very differently from Antabuse, which is also called disulfiram. And I remember using Antabuse with clients so, so frequently. They were court-ordered, in fact, to monitor Antabuse. And Antabuse works very, very differently. It's almost like a punishment when people use.

So it causes a significant physical reaction when alcohol is consumed, as opposed to naltrexone, which-- when you consume alcohol on naltrexone, it feels like you're doing nothing more than

consuming water, right? It limits the positive effect, and it reduces craving. So clients have said to me, you know when I'm on naltrexone, I could really take alcohol or leave it. It doesn't call me in the same way that it used to call me. And that's really the issue. That's what we're trying to target. So Antabuse, or disulfiram, naltrexone.

And acamprosate is Campral. Maybe you've used that as well or have clients who've been on it. But what that does is it tries to rebalance a few neurotransmitters-- dopamine, yes, but in particular GABA and glutamate. And these are two neurotransmitters that are most impacted by alcohol use.

So let's now talk about medications for opiate use disorder. So medications for an opioid use disorder are naltrexone that we just covered. Methadone, which my guess is that you're most familiar with. Buprenorphine, which relieves the symptoms of withdrawal but also reduces the euphoric effect of opiates.

And then when you combine buprenorphine and naloxone, you get something called Suboxone, which maybe you're familiar with as well. And it reduces the likelihood of abuse. So when we talked about diversion of medication, they're providing Suboxone now in sublingual form, meaning under the tongue. It dissolves in the mouth really quickly and does not provide the same intense effect that any opiates do. So you can't crush that. You can't crush it and snort it, for example. So there's a lot of effort being paid to, how do we make this less street-worthy?

So those are some of the medications that you may be familiar with or maybe not. But these are most commonly used in opiate use disorders. And so that leaves us with the question of, what do we do? What can we do next?

And really, the first step is listening to this webinar. I imagine that you have a ton of questions. And we'll do our best to answer them. But I also imagine that you will leave this webinar kind of wondering, oh, was I sold a bag of goods? Is this really an issue? Maybe some of you will walk away saying, gosh, I'm even more convinced that MATs are not the way to go. That could be.

But the first step is always just to gather a little bit of information. And that's what you've done today. If we really want to reduce the use of opiates and the incredibly rough consequences that come with it, including overdose and death, then we also need to increase access to treatment and awareness and access to MATs, if that's the route you want to go.

Maybe if you're even further along in the process, maybe you want to talk to medication providers about being allowed to use MATs. They have to have certain credentialing. And I put that in the

previous slide. I'm just going to go back there for a second.

There's special training that is needed in order to provide buprenorphine or Suboxone-- so special training, special certification, licensing, et cetera. So maybe you're talking with your medication providers about MATs. And maybe if you're really sold, you conduct myth-busting workshops in your communities. Because the truth is that this is a different way of looking at things.

And maybe there's a rub sometimes. Maybe there's a rub between sort of this way of thinking that is take a medication to help you versus the traditional healing methods or traditional ways of thinking about healing. So maybe there's a rub right there. Maybe there's a value rub that's important to talk about.

You could also apply for funding opportunities. And in the handouts section, in the resources section, there is a handout that has some additional information regarding funding opportunities. So there's that document available.

SAMHSA, or the Substance Abuse and Mental Health Services Administration, has a particular grant. And several people have applied for that grant. So I want to focus just on tribal communities for a minute and have Greg kind of share with us some of the programs that tribal communities are engaged in.

Through BJA's Comprehensive Opiate, Stimulant, and Substance Abuse Program, the Substance Abuse and Mental Health Services Administration's Tribal Opiate Response Project, there are several tribes currently working on implementing MATs in their programming. Let's discuss just a few of the program examples.

The Makah Tribe in Washington State is a COSSAP grantee and working on implementing and expanding community-based MATs in a law enforcement and first responder diversion program, implementing jail-based MATs and generally expanding overall access to naloxone.

The Three Affiliated Tribes of Fort Berthold Reservation in North Dakota as part of their SAMHSA Tribal Opiate Response Project are implementing MATs throughout their Elbowoods Memorial Health Center. There are currently 12 individuals in the program. Their program goals also include training all staff, emergency services personnel on administering naloxone and also offering training for community members. They're working on developing formal protocol for the case management and tracking of clients who request or require MAT and developing referral processes between primary care providers and behavioral health staff for those at high risk of substance abuse.

A SAMHSA grantee who is in Indian Health Center in California, serving tribal members in both California and Nevada, is working on implementing a MAT project to help stabilize and maintain opiate-dependent people seeking recovery from their opiate use disorder. It is a culturally sensitive, trauma-informed, multidisciplinary intervention that combines Suboxone, Native American healing practices, intensive case management, team-based care planning, weekly stabilization, and refill groups. It also includes needed behavioral interventions and referrals to community services for specialized care, including psychiatric and higher-level SUD treatment.

Another SAMHSA tribal grantee in Wisconsin is working on piloting a collaborative MAT program beginning with their community-based residential treatment facility, starting there with the county jail and with local Wisconsin Department of Probation and Parole field office. The approach for this pilot project will be to offer tribal members who are offenders with short histories less than five years of opiate dependency MAT in the form of Vivitrol.

Additionally, project participants will be engaged in culturally sensitive inpatient treatment services, along with culturally sensitive outpatient services that provide a support system. These services comprise mental health counseling, case management, and transitional housing. Once some of these programs have had additional time to fully implement their projects, we plan to host a future webinar to highlight program successes and lessons learned.

With that, we're now going to move into our question-and-answer portion of our webinar. If you have questions for today's webinar, please submit them now via the question box in the GoToWebinar control panel. Questions are seen by webinar staff only, and confidentiality will be maintained.

And Greg, I do want to mention that there are many tribal communities that are offering MATs and have received grants from SAMHSA. I believe in my last review, there were about 125 different programs that received grants as part of that Tribal Opioid Response funding. Some of the grants were \$100,000. Some of them were several million dollars.

So I would definitely encourage people who are interested to look into funding. Oftentimes the projects were focused on reducing unmet treatment needs, reducing overdose deaths as a result of opioid use, prevention, education, access to MATs, and integrating culture into everyday work.

Thanks, Anjali. So starting with the questions, the first one's about brain development. How long can it take for a brain to recover from the rewiring of their neurotransmitters?

Oh, that's such a great question. And it is really, really hard. It's hard because it depends on how

compromised their brain was when they got addicted to the substances. So for example, if somebody was also experiencing trauma or was in a chaotic living environment-- there was a lot going on, emotional abuse, et cetera-- their brain was already compromised. And so to get addicted to a substance then, their brain will take a lot longer to recover.

But here's what we do know based on some numbers. It takes a minimum of six months for our dopamine levels to come back to normal-- a minimum of six months-- once we're addicted to opiates. And then some people can take much longer, some two years, five years. And the longest I've seen in the research is seven years. But somewhere between six months to maybe seven years-- ideally, six months and five years-- somewhere in there is where our brains come back fully. So excellent question. Thank you.

Thanks, Anjali. We have a pretty lengthy question here. Do you believe that traumatic histories make it difficult for users to negotiate withdrawal due to their learned response to negative psychoemotional products? In other words, since they have almost always dealt with their problems via alcohol drug abuse and use, that use became their frame of reference, thereby making it their learned response.

So yes, that was an extremely insightful question. And you actually answered the question in there. You are absolutely right. So the person who put this question in seems to know a lot about the brain. And you're absolutely right in terms of how things function.

So if as I'm growing up I learn certain ways of coping-- and I don't mean as I grow up, meaning I'm five. Even in my teenage years or early 20s, I learn how to cope with certain things. And if the learning that I'm doing is that when I get stressed, I use, that is a certain link that happens with my nervous system. So the nerves form a certain loop. There's a pattern that's formed in my brain. It's a neurological process that gets wired together.

There's a term that we use. Neurons that fire together wire together, meaning, is there certain things that I do at the same time that I use? All of that comes together in a bundle in a pattern. And so later on, it's very hard to dismantle that pattern. It takes time because I have to dismantle that whole pattern, not just use. It's also about management of stress or dealing with difficult circumstances or any time I'm triggered or any of that.

So yes, it's about neurological patterns that are formed, neurological bundles that are formed. And so if as I've been growing up I've always should of dealt with difficult situations by using, it becomes a lot harder to dismantle that-- not impossible, but tough for sure.

Thank you. We have a question on elderly people. Older people that have chronic pain-- can they use opioids on and off, hoping they don't get addicted? Will that work? Or will they become addicted? If they use one pill a day or four, will it matter?

Yeah, it does matter. And here's the difficult piece, right? Opiates were used for a reason. I mean, they are effective at pain management. But unfortunately, if we don't monitor ourselves, if we're not careful, one pill a day becomes four pills a day becomes 24, right? That's the rub.

So if your question is, can people use prescription medications successfully and not get addicted, absolutely. Maybe some folks on this call have had a surgery or dental work or whatever it is where they've been provided prescription meds. They used it per their prescription, got off it, and they're all good to go now.

So it leads to the next question, which is, what gets us addicted to substances? How is it? Let's say Greg, who goes through a surgery, does just fine on his pills and comes off. And he's like, yeah, I'm cool. No problem. And me-- I start taking pills as a result of the surgery, and I get addicted. What's the difference? What's the difference between Greg and me?

So that question is really important. And it has to do with a number of very individualized and slightly complex things. So it has to do with genetics. If I had a genetic history of a predisposition to addiction, I would be more likely to get addicted to substances than Greg would. If Greg has no family history, I'm already in trouble. So that's one piece.

The second piece is what's going on when we started using. So if Greg and I started using at the same time, but I was going through a traumatic experience-- maybe I had a death in my family. Maybe I was extremely stressed about a variety of different things. And so my brain was already in a compromised position-- it increases the likelihood that I would get addicted compared to Greg.

And another thing that could be contributing to it is the amount I use. So if Greg's really sticking to one pill a day and no more, and I go from one pill to, you know, that's not really working. Let's try two. Let's try four, and I'm slowly increasing my use, that's going to increase the likelihood that I get addicted. So there are lots of different sort of reasons that we get addicted to substances.

But can people use prescription meds correctly? Yes. It's just hard. And we really need to support people around it, which is why there are so many or so much attention being paid to pain management. So we can't just take people's opiates away without providing them other methods of

managing their pain or managing whatever is going on for them.

Thank you. We have a question on trauma. And it's trying to compare or look at, are there any differences between historical trauma and trauma that the person has experienced firsthand? And the question is, does historical trauma play a role in relapse? And is that similar to a role with a-- if the person had experienced more direct trauma in their lives?

Fantastic question. There were multiple parts, Greg. So just make sure that I answer all of the parts, please. Historical trauma has very similar impacts on our brain and on our genetics than actually experiencing trauma-- so very, very similar.

Historical trauma creates adaptations on our genes, meaning there are certain things that change in our genetic code as a result of historical trauma. That increases my likelihood for having a very particular stress response. It increases the likelihood that my limbic system is wired in a more reactive way, that my frontal cortex is. It increases the likelihood that my brain will be more easily impaired by addiction. And it increases the likelihood of actual addiction. So historical trauma does play a huge role in not just the impact on the brain, but in how these genes show themselves and the impact of addiction, then, on that particular brain. Greg, I feel like I'm missing some parts of the question.

I don't think that you did. I think you covered it really well. So thank you. And if the person that asked that question-- if there was a follow-up to it, please put it in the question and answer, and we'll try to get to it. So moving to the next question, when you say, combining medication and treatment, are you talking about Suboxone or mental health meds or both? Some will say Suboxone trades one addiction for another addiction.

Yeah, excellent. So for the purposes of this webinar, I really was talking about Suboxone. But we'll talk about mental health meds in just a second. So let's back up to Suboxone.

When we're talking about medication assisted treatment, we're talking very specifically about medications that attend to reduction of withdrawal, reduction of craving, and supporting the brain in rewiring its brain chemistry-- so supporting dopamine production, for example. So we're really talking about naltrexone, Suboxone, methadone, things like that.

Mental health medication is a little bit different. And we absolutely need to attend to that before. But for the purposes of this webinar, we were really just focusing on medication assisted treatment.

Your other comment in that isn't it trading one substance for another-- yes. And yet the outcomes are

so different, right? By that, I mean that we would rather-- or let me just say, I would rather have somebody who is not shooting up but instead taking one pill a day that allows them to work, go pick up their kids from school, be a parent, be an engaged member of society, right? I would rather that than have them shooting up somewhere in a state of increasing their exposure to other diseases, perhaps, like HIV or hep C, perhaps committing criminal behavior because they are needing that next high. They're looking for that drug of choice.

So it's a difficult one, right? And it's one that you need to be comfortable with. I could talk to you all day about all of the success stories that I've seen. And yet it's something that we all need to be comfortable with. And we need to be able to look at the research and say, here's what the research is showing-- that our relapse rates if we don't use MATs for opiate use-- they're really high. They're upwards of 90% in a year.

And are we really making a difference, then, as a treatment provider? And if we know that adding medication actually increases success, increases them staying in treatment, reduces the likelihood of these other diseases, reduces criminal activity, and supports a full recovery, then why not offer that?

Thanks, Anjali. Here's a question about kind of the intersection between corrections, the courts, medical care. And I think it has to do with a person, obviously, who's been getting pain medication prescribed maybe by multiple doctors. How should courts, treatment, corrections manage doctor shopping?

That's an excellent question. And Greg, actually, you have some expertise in this area because you were in charge of a program where MATs were supported. And yet we were very clear with participants in this program around disclosing to their doctors. Can you share a little bit about what you did? I think you know what I'm talking about.

I do. I think you're talking about our problem-solving court and us introducing MATs and, even before that, dealing with a lot of people with opiate addiction problems in our community. It's been a huge problem for a long time.

So this was an evolution for us. I'm not going to say we got there right away. We had to learn a lot. And so we ended up being in a position in our policies and procedures-- when people were doing intensive treatment and MAT or involved in our problem-solving courts, we didn't allow them to have doctors that we didn't know about. So they had to carry a disclosure with them that they were in drug court, that they had serious issues around addiction. And that doctor had to sign off on it and be part

of the treatment team that was providing services to that person.

This was fairly controversial, particularly in the defense world, about, how could judges dictate if a person could go to a doctor or not go to a doctor or go to the ER and get pain medication? And ultimately, where we landed with a very diverse multidisciplinary team, including ACLU, as well as defense lawyers in our public defender's office and prosecutors and the judges and treatment people, is that really, when you look at a community-based placement in Colorado for us, it is a privilege.

And so we are setting conditions very clearly upfront about expectations. And the person is voluntarily engaging in the program and accepting all the rules. And if they choose not to do that, then there will be other options for them. But it was important enough to us and problematic enough to us that we had to address it pretty head-on.

Great. So you're talking a lot about the importance of allowing people to choose to opt into a program where they have medication assisted treatments available to them, but they also acknowledge that they have to do certain things. And some of the, in quotes, "certain things" are to share with a doctor about their history or provide a particular sheet of paper that they have their physician sign that highlight some of the things that are important for us in the program. So yeah, I think it was a really important sort of evolution that we had to go through in order to get where you're talking about, Greg.

I hope that was what you were looking for and the example you were wanting. So it is what it is now. Anyway, next question-- what are your opinions on Subutex and/or Suboxone? I am torn. I've seen it get abused more often. And I saw it be a beneficial method of harm reduction. And with the new injection method, it seems to help with withdrawal symptoms. The person was an addiction counselor at Rimrock Foundation in Billings, Montana, for seven years.

So it sounds like the question is whether I would choose one medication over the other? Is that it? I lost the beginning part. I'm sorry, Greg.

I believe that's it-- that they've seen different kinds of success rates with different medications and wondering about those two medications.

Got it. Yeah. So medications work differently for different folks. And so I love that you're considering-- gosh, I'm seeing this particular medication work better than the other. That's fantastic. And it really is a conversation with the client. It's a conversation with the medication provider and you that needs to

happen in order for us to be able to get this right. So I love that you're thinking about it. I don't have a recommendation in terms of one medication over the other. It really depends on the client's need.

And, you know the other thing I would add to that in our experience with problem-solving courts and kind of working with the community and different clinics and treatment providers is that sometimes the price is prohibitive. And so sometimes you're looking at drugs that maybe the drug maker will work with your agencies on and give you a better price so you can provide services to more people. Sometimes it's only covered by one insurance and not the other. So you need to have some flexibility in how you approach that. But become experts in what issues you are addressing.

So Anjali, we have a two-part question on 12-step programs. First is, do you find 12-step programs often seen in organizations, like NA and AA, to be beneficial to subject's recidivism rate on a long-term recovery? And the second part to that is, are there implications with people participating in AA, NA, or Rational Recovery when they're receiving MAT services? And technically, I guess the question is maybe they're not sober. Or that would be the question or the self-help program's concern about it.

Yeah. Great questions. So any support group is helpful. We know that social support is key in long-term success when it comes to changing behavior, no matter what that behavior is. And so social support is hugely important. And the social support ideally matches what the client is looking for. So if AA or NA is working for the client, that's fantastic. If Rational Recovery is what the client needs, great. There are a lot of different options in terms of social support. So yes, social support is key.

And then it just depends on the culture of that particular social support group. In any of the literature on MATs, we frequently make the statement, people who are on MATs are considered in active sobriety. And yet sometimes a group might disagree with that. And so it really depends on the culture of the group.

I've had experiences where certain support groups will say, absolutely, many of us are on MATs. And more power to us. And, you know we support each other, and then some that sort of shun people who are continuing to stay on MATs. So it really is important to kind of figure out what is the culture of that particular group. But just to emphasize, social support is incredibly helpful.

Thank you. So the next question is, what about those that are scared, afraid to taper off of MATs? Are there effects of being on one for a long period of time?

Yes. This is really important. And it's a medical decision around how we taper. Ideally, people are on medications for about two years, and then you start the taper conversation. Some people are on

there for a shorter amount of time. It depends on how long they've been addicted to substances. And then some people are on it for quite a while.

So the taper conversation is a very individualized, sort of personalized conversation that needs to happen. And there are folks that will stay on the medication for quite some time. As we're trying to taper them, they say, no, this is not working. I'm struggling again.

And if you remember back to what we were talking about, healing the brain-- that it takes anywhere between six months and sometimes up to seven years. So that's then what we're talking about in terms of how long people might be on a particular medication.

Thanks. The next question is kind of a criminal justice question and the people paying attention to some of the assessments that we do and things that the assessments point out. And it is, if a person relapses, are they more antisocial than other clients that we might see? And how do we sort that out?

That's a good question. I wouldn't say that people relapse because they're antisocial. People relapse for a variety of different reasons, actually. I can't even finish that statement. Some people relapse because they are in the throes of their addiction. Some people relapse because they don't have enough support around them. Other people relapse because they don't have enough skills, and they need that. Other people need more structure around them. They're just not ready, and they need some inpatient time, maybe.

So when somebody relapses, the question that I tend to ask is, what are they asking for? What is the need? They're asking for something when they relapse. They're telling us that something is not working, that they're missing something. Is it skills? Is it motivation? Is it additional support? Is it medication? Are we missing a mental health issue that we overlooked, perhaps, that is really coming into play? So that piece is really important.

I find that the antisocial piece is a different bucket than the drug use, even though they're interrelated. And by that, I mean that there are times where I can help somebody get sober. But if I don't attend to the antisocial sort of thinking and the other things that you were mentioning in the question, then I haven't really done my full job. So I think attending to both is really important but I wouldn't say that one that relapse is because of, necessarily.

Thank you. A question-- if MATs were used to rebalance bodily functions, like thyroid, heart, et cetera, medication, then are MATs considered a lifelong commitment because of the chronicness of the disease?

That's an excellent question. And for some, it might be. For some, it might be lifelong. For others, it isn't. Let's take cholesterol medication as an example. For some people, to manage their cholesterol in the most immediate future, they need medication.

But then slowly, they make changes in their lifestyle. They change the way they eat, perhaps. Maybe they introduce exercise. Maybe they reduce their stress. They make a variety of different lifestyle changes. And as those lifestyle changes start to take effect, they're able to manage their cholesterol levels without the use of medication.

But for some, they can't. And they continue on the medication. So it really depends on what else is happening for the clients, other changes, lifestyle changes that they're making to support a long-term sobriety.

Thank you. So I think this will be our last question. We have a bunch more questions. And when we provide the recorded version, there will be a question-and-answer piece in there that Anjali will endeavor to answer all the questions that have come in. And they've been great questions. So the last question is, for serious addicted or dependent people, how many treatment experiences can it take to achieve long-term sobriety?

Oh, that's a really great question. So we had some research on this. But in a lot of ways, it really is so individualized. So some people take one round of treatment, and they're good to go. But on average, it takes about seven rounds-- so seven starts and stops or seven relapses-- on average.

But again, it's such a great question. And it's so unique. Everybody's journey into addiction is so unique. And then everybody's journey out of addiction is pretty unique as well.

Thank you. And this is going to conclude our question-and-answer portion of the webinar. So in closing, we'd like to share brief information on additional training and technical assistance opportunities. NCJTC is a training and technical assistance provider for the Coordinated Tribal Assistance Solicitation purpose area three, grantees and nongrantee tribal agencies, focused on implementing system-wide strategies to address crime issues related to alcohol and substance abuse in tribal communities.

We are also a TTA provider assigned to assist with Tribal Comprehensive Opiate, Stimulant, and Substance Abuse Program grantees focused on developing, implementing, or expanding comprehensive efforts to identify, respond to, treat, and support those impacted by illicit opioid, stimulants, and other drugs of abuse. TTA services for both programs include customized on-site

virtual training, regional trainings, conferences, webinars, peer-to-peer support, on-site or virtual meeting facilitation, written resources, community planning, justice system collaboration, and sharing grantee best practices.

For additional information on general TTA services, links to featured offerings, and to request TTAs, please visit our program website as shown on the screen for more information. Please follow the on-demand link to view upcoming webinars and our robust library of webinar recordings and self-paced online training opportunities.

Another valuable resource is the COSSAP Resource Center. A screenshot of the COSSAP Resource Center is shown here along with the web link. Featured resources available include funding opportunities, COSSAP grantee site profiles with a data visualization tool, information about demonstration projects, peer-to-peer learning, and recording of all previous COSSAP webinars covering a range of substance abuse disorder-related topics and strategies.

Of particular significance is the ability to request training and technical assistance or TTAs whether you are a COSSAP grantee or not. COSSAP TTA program offers a variety of learning opportunities and assistance to support local, tribal, and state organizations, stakeholders, and projects in building and sustaining multidisciplinary responses to the nation's substance abuse crisis. For more information, you can contact the COSSAP program at cossap@iir.com.

Thank you again, Dr. Anjali Nandi, for the excellent presentation today and sharing your time and expertise. Thank you for attending our webinar, and have a wonderful day.