[Please stand by for realtime captions] >> [Please stand by for realtime captions] >> Thank you so much for joining us this session . Before we begin the presentation, we want to take a moment to review today's platform. On the right side of your screen you will see our engagement. There are four icons on the bottom that you will need to be familiar with to make the most of your virtual experience. First is the Q&A. This is where you will submit questions for the presenters, send the questions any time during the session, and he presented will be able to respond. You will be able to upload questions that your fellow attendees submit. Next is the poll. Presenters will use multiple-choice questions to test knowledge on key concepts. The third is reactive, fun way to let presenters know how they are doing. Last is help. Which office troubleshooting tips should you encounter technological issues during the session. If your screen freezes ending point during the presentation, press F5 on a PC or command R on a Mac refresher connection. If you continue to have technical issues feel free supporting your submission under the Q&A tap or you can email education at ASAM.org . Now onto the presentation. >> This presentation is entitled opioid use disorder, -- I will now pass it over to Dr. Soteri Polydorou to begin the session . >> Hello everyone. I am an associate professor at the school of medicine. And the medical director of addiction services thank you for participating in the opioid session. Let's begin. I have no financial disclosures to report. Over the next 45 minutes or so we will discuss updates and opioid use trends, history, regulations, neurobiology, we will focus on clinical issues that come up in regard to intoxication and withdrawal, and near the end we will discuss medication -assisted treatment options.

There are about 10 million people who have misused opioids in the past year and the majority of which are prescription type opioids. There are about 2 million people with and opioid use disorder. Also majority of which are prescription opioids, and to a lesser percentage morphine or heroin use. >> What we do understand is the risk of overdose is particularly significant for those using opioids. This is data looking at nontreatment seeking people using morphine or heroin, largely at injection sites and arm reduction centers international data. And it reflects the significant risk that patients experience with overdoses. So a lifetime of personal, nonfatal experience of overdose and about 50% respondents. And those that have witnessed an overdose , either nonfatal or fatal overdose is a majority of about 70%.

The one year mortality is about 5% of nonfatal opioid overdose presentations to ED or those require hospital admission. Again, one out of 20 patients will die over the year after their presentation for nonfatal overdose. Again, to the healthcare system in the U. S.. >> Nationally, to put some of those risks into context, there are about 90,000 legal overdoses in the desk a lethal overdoses . Ending in November of 2020. That reflects five by 25% increase since the prior 12 month period. Of those 90,000 lethal overdoses, the majority about 70% cotton five opioids and over the guards involved fentanyl or synthetic opioids. And to reflect on other leading causes of U. S. effects copies of the top 10 deaths in the U. S.. You can consider the 90,000 lethal ODs would be a top 10 cause of death. Even with the lesser percentage of those that involve opioids, as a leading cause of death, and the subgroup

within the opioid group that specifically involved synthetics. Also would be a leading cause of death. Based on these numbers.

To reflect a little bit on the rate of change over the past year or so, the black line on top reflects lethal opioid doses with all opioids combined. The brown reflex synthetic opioids, they do not include methadone. And certainly over the past year you can see a significant , and over the past year or so very dramatic rise. >> What do we do and what are our options in terms of working to address this crisis? There are many areas and domains to consider. From communities to actions as prescribers, clinicians, individual actions, government and public health efforts and so forth. As we think about it, we want to consider the scope and some of the history around opioid use, and going back over 5000 years with evidence of purposeful cultivation of poppies. Over 3500 BC. There have been wars that have been impacted by the trade of opium . I want to put this slide up as Hong Kong recently in the news. Morphine , heroin, specifically manufactured . And developed as one of the potential indication is the treatment of opium withdrawal. And then efforts to address treatment . A cartoon from the 1930s, identifies public enlightenment. And the road toward federal narcotics bonds. So this crisis, while very specific concerns more recently, it has been going on for a long time. And to put that into context for lessons learned over time.

Let's begin by spending a moment to talk about the opium poppy. There are five alkaloids to be aware. We list them morphine, scalping, coding, diving, and [Indiscernible]. It is accurate that poppy seeds contain small amounts of morphine and codeine. At a significant ingestion, drug test can test positive for opiates , and depending on the cutoff numbers of the -- certainly understandable toxicology's will be covered in a different section.

Regulations have been passed for over 100 years in the U. S.. Starting in the early 1900s. The most significant one is the Harrison narcotics act. That began a formal regulation of full opiate related products . And the manufacturing in the U. S.. At that time, physicians were becoming involved in the treatment, particularly of opium addiction. So they were prescribed other opiates to treat withdrawal. The early interpretation of the Harrison act is that physicians could not prescribe opioids for the treatment of opium withdrawal . Because the thought was opium withdrawal and opium addiction would not be considered at that time. A medical indication for the use of opioids, therefore thousands physicians of that time were indicted, and a significant percentage incarcerated. So it's obvious to really think through the type of chilling effect it would have, particularly early in the healthcare connection with a physician , and the traditional healthcare system and its engagement with substance use disorders . >> While a number of research efforts continue to happen in the 30s and 40s, 50s, it's really not until some pivotal work in the 1960s identifying methadone as a long-term maintenance type treatment for opioid use disorder. Not until 1974 with the narcotic addict treatment act , where the traditional methadone maintenance program currently called opioid treatment programs were able to move from a research environment, to an established clinical care center. And in 2000, the drug addict treatment act which authorizes buprenorphine as a schedule

three controlled substance to be prescribed for opioid use disorder. In 2000 it is not specific in terms of the regulation to buprenorphine, but it does allow for the prescribing of scheduled three, four or five medications that are FDA approved for opioid use disorder. With some other criteria, specifically the capacity for counseling for patients to be able to be used and that is what allows the use of buprenorphine .

It also includes requirement for eight hours of training. We will get into some recent changes to that requirement. And in 2006 the patient limit increases to 100. In 2016, the expanding role of ACP began to be able to prescribe buprenorphine , and the number of patients and individual physician could prescribe was increased to 275. In 2018, the number of ACPs were able to be expanded further. And in 2020, the DEA parted with SAMHSA as it related to added flexibility from HHS declaration of public health emergency. To allow prescribing utilizing telemedicine or telephone only data . And it wavered clinicians to begin utilizing buprenorphine specifically via telemedicine or telephone only. Without first conducting an in person examination. OT P specifically utilizing methadone were not able to have that flexibility, and so initial admission assessments were still required to be done on site, and that was the case throughout the early period of the COVID-19 crisis . >> More recently, just a few weeks ago HHS updated the practice guidelines for the administration of buprenorphine for treating OU D it allows a specific waiver to the notice of intent, indicating the eight hours of training. As well as the counseling and other ancillary services. When filling out the notice of intent to prescribe buprenorphine . So in practice with that allows, it allows for physicians and ACPs who are interested in prescribing buprenorphine able now to fill out the notice of intent to our SAMHSA, without completing the eight hour or 24 hour training. As well is a certification for counseling and/or ancillary services. >> I have a link that goes through the steps and how to make the application. The goal very much able to expand the number of clinicians that are able to prescribe buprenorphine by making this waiver available . Therefore, not requiring additional training requirements , terms of education. Which is a really great opportunity to afford more patients access to care. As of a couple of weeks ago, earlier this month in June over 100,000 practitioners hold waivers. >> In terms of terminology, endorphins, describes the whole class of endogenous opioids like ants, beta endorphin, as some examples. Opioid is a broader description that includes non-endogenous , both natural or synthetic, as well as endogenous compounds that bind to one or more types of the opioid receptors. Some examples are methanol, fentanyl, and oxycodone. And in the opiate is described compounds naturally derived from the poppy plant . Morphine, codeine. >> In terms of endogenous opioids and their receptors, binding the opioid will go through a chart of the different classes. Beta endorphins bind to and of morphine. Capital opioid peptide receptors to [Indiscernible] . As we think about the general effect of these systems, it's important to note endorphin opioid receptor binding does result in increased and dopamine release. But unlike exogenous opioid receptor binding the effect is less robust, and it does not result the same type of habituation that we see with opioid use disorders.

Some common features to all opioid receptors. It is a new opioid receptor activation. All are seven transmembrane domains. They are all Jeep

protein coupled and they can be thought of merrily as inhibitory pathways. New opioid receptors predominately would be the endorphin and they reduce cyclic aim be and can be thought of as more directly related to the clinical effects that we see within intoxication withdrawal. The capital opioid receptor, predominately dying orphan a. And more involved in mediating activities. The Delta opioid receptor predominately [Indiscernible]. That binding seems to be more related to ancillary connectivity. There are many different polymorphisms identified in the various opioid receptors. Here is an example , and other information that could be helpful. For the opioid receptor and you, location of the chromosome six. And for the opioid receptor capital, chromosome eight and delta chromosome 1. The polymorphism A1 18 G which is a substitution has been well studied for number of years. It appears to be associated with an increased risk of opioid use disorder and alcohol use disorder. Some of the early findings tend to show potential increase binding to beta endorphin and a decreased analgesic response to morphine. Summer the later studies do not consistently find this relationship. But still helpful to consider this polymorphism as it increased risk to opioid disorder and alcohol use disorder. >> And then we have a number of different systems involved in the normal endorphin system. We will spend more time focusing on more of the opioid effects directly related to CNS in terms of sedation, analgesia, euphoria and some of the G.I. and Endo and urinary effects. Also the cardiovascular, vasodilation, particularly with methadone. The concern about increased QT and meiosis and tolerance effects. Some specific opioids to be mindful of. In terms of properties, the relationship of fever in fentanyl, increasing temperature , increasing skin absorption of fentanyl. For meperidine the risk of seizure, serotonin syndrome, for tramadol, seizure as well. Creighton and chiseling low dose as a stimulant effects similar to caffeine. Or even in some ways cocaine but at a higher dose and more of an opioid -like affect that can be reversed using naloxone. And possibly association with hepatic cholestasis which seems to be dose-dependent. Something clinically to be aware of. Tying up teen is an antidepressant similar to TCAs, widely available in Europe. And elevated doses it does seem to be having opioid effects something to be mindful of as well.

In terms of opioid potency, harrowing or diacetyl morphine is twice as potent fentanyl 100 times more potent than morphine. So fentanyl 500 times more potent than and core fentanyl 10,000 times more potent than morphine.

As we think about interventions and treatment, really helpful to be mindful of different goals and different stages in providing clinical care. The acute intervention of addressing overdose, in terms of initial stabilization, and addressing high risk concerns around lethality of overdose and withdrawal, Mabel stabilization is particularly helpful at least with withdrawal and maintenance we use similar medications. But the dosing of which can be different , particularly in the use of methadone . Which we will talk about a couple of minutes. >> The classic triad overdose to be mindful of. Meiosis, decreased level of consciousness, respiratory depression, also keep in mind non-cardiogenic pulmonary edema, seizures with those two examples are parroting and tramadol. >> Acute management of opioid overdose is supportive , respiratory support. The use of naloxone . It can be provided as an IV or subcu or IM . Also

great to mention the role of naloxone overdose prevention kits , particularly for the field and community commonly used as a intranasal spray . >> It is great to highlight some of the important efforts and findings related to overdose education and naloxone distribution programs. We see those communities with high rates of implementation, tend to have lower rates of overdose, as opposed to those with lower implementation. We also want to keep in mind certainly, the particularly --for community treated interventions of overdose, there is a potential need for repeated use of naloxone. And dosing affects when treating synthetic opioids. We have seen over time, over the last five to 10 years or so dosing recommendations even for intranasal naloxone has changed, initially two milligrams . Providing the intervention and assessing the patient before deciding on a second dose, currently with a higher prevalence of synthetic. Initial dose is four milligrams, and the secondment dose pretty promptly thereafter. In recognition of thereafter of the more highly potent synthetic opioids that have become much more prevalent.

Again important to keep in mind, the role potentially and of fentanyl muscle rigidity. It's a true medical emergency. It can be associated with the rapid IV administration of fentanyl. Think about when procedures are being done, something to be mindful of. And the acute intervention needed in terms of elation and naloxone and neuromuscular. >> Just to notes in terms of the withdrawal severity, particularly related to half-life, where morphine or more intense. More intense withdrawal syndrome. Methadone, potentially less intense. But longer potentially. And the use of standardized measures to address withdrawal . This is the clinical opioid withdrawal scale. And then the role of specific medications for acute withdrawal. Methadone is a full agonist. And utilized in hospital and opioid treatment programs. Helpful to be incredibly mindful, there is a very limited ability to use methadone for opioid use disorder in any environment, except for a hospital and opioid treatment program. There are some exceptions, but in general the ability to use methadone for pain is very different than the ability to utilize methadone for opioid use disorder outside of a very specific environment which is a opioid treatment program, and the other for a patient was hospitalized. Buprenorphine utilized in hospitals, more flexibility in ambulatory environments. And again with this recent update to provide by HHS the goal is the expansion of clinician being able to wavered to prescribe buprenorphine . And then the use and role of non-opioid , more symptom focused medication like clonidine, NSAIDs and so forth. A reminder of the really strong and powerful consistent treatment outcomes that we see with the use of medications for opioid use disorder. Which lead the way in terms of medications for any substance use disorder in terms of improved outcomes. Both in terms of long-term outcomes, also in terms of acute reduction in overdose risk that you tend to see with the use of methadone. And then buprenorphine after the first couple of weeks of use and initiation of treatment. Buprenorphine again much discussion with it. We will focus on a few specific items. The role of checking LFTs is not needed to initiate buprenorphine . It can be initiated without initially checking LFTs. It safety profile certainly has the formulation, one study is the mother study. Identified the reduced use of morphine, length of stay in hospitalization, neonatal syndrome for patients born to mothers on buprenorphine . Which is important to note. >> And its role and some

of the properties of buprenorphine with a-80 for the opioid receptor and antagonist of the K opioid receptor. And it has a slow association on the and you receptor. --And so at low doses, buprenorphine acts as an agonist but at higher doses, it has slightly modified effects which we will highlight here . In terms of some of the differences between utilizing a full agonist, in the first diagram that goes up to 100%. The partial agonist as the example being buprenorphine. And then a full antagonist, the example is naloxone which binds to the same receptors but no change in the activity of the receptive.

Buprenorphine is another important concept to be aware of is precipitated withdrawal. It displaces a full agonist of the MU receptors, buprenorphine only partially activates receptors, and the change in terms of the net decrease , if it is significant enough, it can lead to acute precipitated withdrawal . >> Be mindful of the reduced use in overdose prevention of buprenorphine has compared to other opioids. And then in terms of induction I will give an induction process that aligns very well with other ASAM and triple AP recommendations there are a number of different protocols that are available . Some advising much higher doses of buprenorphine, some much lower doses. But again I will provide an example that aligns very well with current ASAM recommendations . So the example is general to initiating an induction after mild to moderate withdrawal symptoms. With the CLW of eight or above. Usually taking if the person is using short acting opioids, generally six to 18 hours . And for long acting opioids, an example would be methadone 24 hours, 48 hours, and potentially longer. Until the development of COW scale of at least eight to 10 and for methadone as well, to also consider the dose of methadone, particularly if somebody has been on methadone maintenance, where you want to go certainly as low as possible, but generally 30 milligrams or less. For at least two weeks prior to transitioning . It can be done at higher doses, but again if possible, lower doses of methadone before transitioning to . In terms of toxicology testing, just to be aware that urine and oral fluid will detect this specific compound. Anywhere from a few hours to a couple of dates for opioid spirit in terms of interpretive positive results. Something to be mindful of.

On day one as COWS is a to tenor above, to initiate a first dose of two milligrams to four milligrams sublingual. We assessing 1 to 2 hours, depending on the COWS score I know precipitated withdrawal to provide a second dose of two to four milligrams and to consider a third dose as well after a few hours of assessing withdrawal symptoms. With a total first day dose of eight milligrams. On the second day to provide the first day dose as single-dose, and then based on ongoing results symptoms may increase four milligrams twice a day . Up to a total second day dose of 16 milligrams. There are other examples of induction protocols. Some that would recommend higher doses. Some such as micro-dosing that would advocate for significantly lower dosing, over the first couple of days. But again these are desk of this example of day one and day two dosing falls in line with the FDA approved dosing induction recommendations . Also to be aware, the symptom focused medications and the use of clonidine and other medications, particularly early on to address withdrawal symptoms. >> And other important highlight is the role of ED. I would argue other urgent care centers to initiate medication for opioid use disorder. This is some information highlighting some of the benefits

and the data we have identified. For ED's that are able to initiate buprenorphine while the patient is under their care, and some of the connection to treatment and ongoing outcomes that are significant. We have multiple formulations. Just to highlight there is a subdermal implant as well. It provides a steady-state dose for up to six months. It does require a minor surgical procedure and require some additional training. There is an extended release monthly injection as well. It has been available since 2018. Patients who are on eight to 24 milligrams of buprenorphine sublingual for at least one week can be transitioned, initial doses of extended release monthly injection is 300 milligrams for the first two months by 100 milligrams monthly thereafter. Keep in mind that the data of 2000 waiver applies to many of these formulations of buprenorphine. But specifically, the formulations that can be used for opioid use disorder have to be FDA but -- FDA approved . Some of the transdermal are not approved for opioid disorder therefore they can be used for pain. But not for the treatment of opioid use disorder but naltrexone as an antagonist, that alpha metabolite. And another important reminder is that while it standard dose , we do not have consistent evidence of hepatic toxicity, therefore there is no need to check LFTs prior to initiating naltrexone, as well as the injectable formulation or extended release but but for those patients you are concerned about, for other reasons hepatic dysfunction certainly checking labs would be indicated, but not as a routine requirement for starting any of the formulations of naltrexone. Some of oral formulation available since the 1980s. Taken once a day or higher doses three times a week. Some of the challenges revolve around adherents. So it tends to be more limited to highly motivated populations. Another formulation is the long-acting injectable formulation. It has benefits in terms of adherence. Here is some information on the data collected. Collected over the last 10 years or so. And in terms of getting a patient started, who has a physiologic dependence to opioids, considering transitioning to an antagonist , particularly extended release. So again the initial assessment in terms of vitals, toxicologist, history, and so forth. It is critical for those patients who have not used in opioid in 14 days or longer. As long as your clinical assessment aligns. Along with in opioid negative toxicology. Moving forward to beginning extended release of naltrexone would be indicated. For patients who have not used opioids for eight to 13 days, COWS assessment can be incredibly helpful in identifying those who may be able to get started on extended release naltrexone as opposed to those who would need to await a longer period of time . And so in this example, COWS greater than four would indicate continued use of symptom focused medication, and then reevaluation for patients who have a COWS of four last and opiate negative toxicology. The next is performing naltrexone challenge. If the challenge is negative, the next step would be to proceed to the extended release injection if it is positive --the focus would be more on providing symptom focused medication, and then reevaluation after few days. For those who have used opioid in seven days or less, obsolete the concern of the patient can still be physiologically dependent. Even with opioid negative toxicology significant. Therefore partially two options to consider which is using non-opioid medications to treat withdrawal, and then reassess as the patient moves toward more of that eight to 13 day period or longer without opioid use. Or utilizing buprenorphine with withdrawal management and provided example will be divided in a moment.

This is some information on the naltrexone challenge. One is for the I am using the lock sign and oral. Here are the specifics on how to do the procedure, as well as how to interpret results. >> The buprenorphine assisted withdrawal management essentially inducting someone onto buprenorphine , utilizing it for one day. Up to eight milligrams on the first day. Using other non-opioid medications to address symptoms. For about one week or thereafter. And then assess for extended release naltrexone reduction . Utilizing naltrexone challenge. >> Methadone has been FDA approved since 1972 for opioid dependence. There are two , the L and the R is the active form. The half-life is 24 to 36 hours however there is a significant range for 4 hours to 91 hours a longer period and so because of this long half-life, it is important to keep in mind five half-lives before reaching close steady-state. This could take multiple days before reaching steady-state, getting clear indication of clinical facts. >> Partly this is related to over the last 15 or 20 years, some changes in terms of initial titration schedules up methadone being more concerned, lower doses as initial dose, slower and longer titration. And so other areas to be mindful of is the risk of QTC prolongation with elevated doses of methadone. It does appear to be dose-dependent. On the dose of methadone. Conversion tables is something to be mindful of. Traditional conversion table on opioids generally have linear ratios for most other opioids. But for methadone, that ratio can change depending on the morphine equivalents. And so older conversion tables may not be as updated as would be helpful. And so something to be cautious of in terms of using converting tables for patients transitioning onto methadone . And then the role of serum levels for methadone have been more prevalent in the 80s to 90s. But understanding certainly more recently, clinical presentation and assessing a patient's need for changes in methadone dose really should supersede serum levels , and I have some information on serum levels here. But again the utility is far less significant now, however some opioid treatment programs and some states continue to require their collection for specific indications, but again a clinical presentation should supersede serum level.

We have some recent recommendations in terms of initial dose . 10 to 20 milligrams as of oral dose, 20 milligrams to be mindful of. Eliminate severe withdrawal. It is not generally recommended to exceed 30 milligrams in the first 24 hours. Initial dosing and early titration of methadone , again because of the long half-life. It really needs to be done in a proper fashion, which is very different in some sense than focusing on the goals of craving and even blocking dose, which is more at higher doses of methadone, 80 milligrams and above. Were to continue to titrate methadone, generally at 5 to 10 milligrams every three to seven days. And so early goals of treatment of addressing severe withdrawal, and beginning to address other clinical issues needs to be very mindful in terms of the long half-life, to ensure titration happen slowly. And appropriate increments . >> We have some information that is consistent for all opioid treatment programs. They all have comprehensive assessments, treatment plans, well-established toxicology testing, divergent control policies, opioid treatment programs tend to expand not just into providing methadone treatment but incorporating buprenorphine . Some providing extended release . And you can have various options from opioid treatment programs not purely methadone. Attendance schedules from

medication dispensing is very well established. And highly regulated by federal regulations as well as state regulations, depending on the geography of the opioid treatment program. Guest medication, supporting a patient who may be traveling from one state to another continued to receive medication dispensed at a another opioid treatment program. Well-established confidentiality of protocols. And regulatory oversight. >> We have some clinical issues to consider in terms of different MAT options. Is the patient goal on abstinence or harm reduction. One may indicate a posters on the desk of a patient may benefit from opioid tolerance. So perhaps the medications as an argument , like methadone or partial methadone may be more indicated. For patients who may need or anticipated to need opioid analgesia, again to use potentially of a full agonist or partial agonist may be indicated as opposed to the initiation of an antagonist medication. For somebody currently pregnant or planning pregnancy, the safety is very well established for the use of methadone and the use of buprenorphine as a formulation. And certainly recommended as opposed to the use of naltrexone which is not recommended during pregnancy. A recent overdose or high risk overdose behavior and considerations on tolerance may be beneficial. The structure of the treatment programs and the potential need for other medical or psychiatric conditions that may impact the different services that are available in different clinical settings , concerns around diversion rest, alternatives. Clinical services available in your community. And what might be a good option for patients based on the resources in each community. >> Questions . We have three questions that follow. Let's get started. Which endogenous opiate receptor type predominately influences the development of acute opiate withdrawal symptoms?

You have four options. MU opiate receptor, Capi or opiate receptor, GABA B receptor, or serotonin 5-HT 2A receptor. >> Let me repeat the question. As we use the poll to look at results . Which endogenous opiate receptor type predominately influences the development of acute opiate withdrawal symptoms X MU opiate receptor, Kappa opiate receptor, GABA B receptor, or serotonin 5-HT two A receptor . >> The answer is MU opiate receptor. We spoke about the different opiate receptors and identify that the MU receptor as the opiate receptor that predominately influences acute withdrawal, and symptoms related to overdoses well. >> Which of the following is the correct order from least to most relative opioid potency? Morphine, diacetyl morphine, fentanyl, car fentanyl. Fentanyl, morphine, car fentanyl, diacetyl morphine. Diacetyl morphine, car fentanyl, morphine, fentanyl. Morphine, diacetyl morphine, or fentanyl, or fentanyl.

Again which of the following is the correct order from least to most relative opioid potency? Again I will pause please use the polling. The answer is a. Morphine, diacetyl morphine, fentanyl, car fentanyl . Again we spoke earlier in terms of potency. Diacetyl morphine being twice as often as morphine, fentanyl being 100 times more potent than morphine, and or fentanyl being 10,000 times more potent than morphine.

And the final question. The use of FDA approved formulations of buprenorphine to treat opioid use disorder is authorized by the following federal regulation ?

Harrison narcotic act, controlled substances act, narcotic addict treatment act, or drug addiction treatment act. >> Please use the polling. As it fills up . The use of FDA approved formulations of buprenorphine to treat opioid use disorder is authorized by the following federal regulation? I will go through the options one last time. Harrison narcotic sigh, controlled substance act, narcotic addict treatment act, or drug addiction treatment act. The answer is drug addiction treatment act. >> As we discussed the raw number of different regulations that were passed . In 2000 the drug addiction treatment act authorized the use of controlled substances , schedule three, four, five, FDA approved for opiate use disorder. Again with the added criteria at the time. Requiring formal training which has most recently been waived. And so the answer is drug addiction treatment act. Again I would certainly encourage everyone , for those who are providing buprenorphine education, or for those that are interested in advocating for the expanded use of buprenorphine , the opportunity for not just physicians, but also for advanced care providers to now receive data waiver by simply filling out the notice of intent. And not at this point requiring additional training of the eight-hour work 24 hour training . It's a huge opportunity. That opportunity is not a temporary opportunity. And so it is a great chance to advocate for institutions throughout the country to expand the availability of medication for the treatment of opioid use disorder.

I hope everyone has enjoyed the conversation. I appreciate everyone's attention. Thank you.

This presentation is tobacco . I will pass it over to begin the session to Dr. Avery.

Thank you. Thank you everyone for coming and sticking with us. I am the director of addiction psychiatry at the Weill Cornell medical College. Tobacco is not a boring talk hopefully. We have driven down the cigarettes after all these years, but kids have made it excited again using nicotine. Treating folks whether stopping cigarettes, or trying not to. It is a hot topic these days. Let's month away. >> No financial disclosures yet, I am the incoming chair of the ASAM course. A little bit of history before we jump into some of the details. >> Native American tribes cultivated and used tobacco for many different purposes for thousands of years before the arrival of the Europeans. It has been around forever. It's a important economic influence in the British American colonies and the early United States. It is a big problem and remains a big problem. The world health organization estimates that one third adult small, and because tobacco use is on the rise in developing countries, it is one of the few causes of death that is increasing. Nicotine and the reinforcing sensory stimulation associated with tobacco use are responsive for their compulsive use of tobacco in the form of cigarettes, and all these different ways you can do including the new forms of vaping and drooling and all of those things. >> As I said in the U. S. we have been driving down nicotine overall and the prevalence has declined in the U. S. from 42% 1965 to 14% in 19 -- 2017. In the 50s and 60s, if you were a cowboy you were a cool person smoking cigarettes but and then by the time 2017 came around no longer cool and a social stigma still smoking. We will talk about some of the ways it was accomplished. A lot of efforts to help drive this number down. And just

as we were celebrating the high five meetings about these low numbers to 14%, youth nicotine started taking off in 2018. I saw it here at the hospital in 2019. Anna has surged. >> Men are more likely to be smokers than women 15.8% versus 12%. 60 million Americans have smoking-related diseases. A lot of morbidity and mortality and accounts for 20% that's the U. S.. -- Deaths. It leads to cancer, CV disease, nonmalignant pulmonary disease and premature deaths. The years lost are profound. For men it is 13, and women 14 1/2 years. And certainly can cause a lot of trouble. >> It causes Coke during disorders. -- Co-occurring. You can see that from anxiety, mood disorders, co-occurring alcohol another use disorders. It is increasingly predictive of developing these things. In the 50s and 60s, it was predictive of being alive. These days if you are still smoking the odds are that you likely have a co-occurring mental health or substance use challenge. For the family has -- [Captioner transitioning] >> [Event Concluded]