>>> This presentation is entitled "Treatment for Different Stages of Life: Adolescents, Young Adults, and the Elderly" . I will now pass it off to Dr. Michael Fingerhood to begin the session. >> Thank you. This is a topic that crosses substances. We will try to tie that together based on age group. It is really looking at the spectrum early in life and later in life. I hope this to be somewhat interactive, I hope that you will interact in the chat box . There is a hope you we actually learn from each other. There will also be some of what our response questions which I hope you will anticipate, as well. Those we will discuss. For this course, I have no financial disclosures as we discussed the different age groups of individuals. These are learning objectives that are throughout the ASAM talks. Especially my talk, I think it will reflect on how you take your patients in the impact on patients ' families and the important aspect of considering, as we take care of people at the early age group, obviously, older individuals often are responsible for them. The role reversal as the children play an intimate role on how their care is delivered. These are the outlines. It will be separated into two half talks. The first is adolescence and the 10 to 19 and young, 10 to 24 per the World Health Organization. We will be talking about the 10 to 24. Elderly is something that is interesting. It does not have a definition. Often we think of it as someone much older than yourself so it is often a moving target. Even the literature, depending on the topic, could be 50 and above, 60 and above or 65 and above. We will talk about some of the nuances older adults have. Adolescents, I will preface that I want to thank Mark Fishman who helped with an earlier version of this presentation. Mark and I also collaborate and take care of patients in similar settings. A lot of my thoughts and how I thought about, especially younger adults versus older adults often have their children play an intimate role in how their care is being delivered. These are the outlines, they will be separated into two half talks. The first is adolescence , 10 to 19 and young, 10 to 24 per the World Health Organization. We will be talking about young adults, really 20 to 24. Elderly is something that is interesting. It doesn't necessarily have a definition. Often we think as elderly as someone much older than yourself. It is often a moving target. Even the literature, elderly, depending on the topic can be 50 and above, 60 and above, 65 and above. We will talk about some of the nuances with older adults. Adolescence, want to preface that I want to thank Mark Fishman. We collaborate and take care of patients in similar settings. A lot of thoughts and how I thought about, especially younger adults, in conversations from Mark. Adolescence is a time many of us do not want to go back to. It is a time to find biological growth and development. There is a lot of social pressure. We have responsibility for making new decisions, in adolescence, before then, all decisions are made for us. We are defining ourselves. For most of us, a lot of what we are finding is between high school and early college. It is a time we can all reflect and a lot of where we wound up is really how we enter adolescence. In adolescence, there are is a lot of overlap from other age groups with these substances. It is also the age in which most of the substances are used for the first time. Especially for many individuals. Marijuana, alcohol, we will talk more specifically about nicotine and vaping, opioids, cocaine. For a lot of young people, there is a lot of experimenting with

things, substances that really often are not often used by elder individuals. Inhalants, nitrous and others. You may have heard it referred to as huffing. Classically, when I was younger, there was huffing, that was of glues and MDMA, many refer to it as the Molly. A lot of it on the street is not necessarily what individuals think it is. Symptomatic cannabinoids, PCP, which we are seeing a resurgence of in many settings, can't the notes, stimulants, and then kratom and salvia which younger individuals may think are safe because there deemed natural or from a plant, which they think might be safer. Again, remember that a lot of these substances are not detected by triple coal drug screens. Especially synthetic cannabinoids and cap and owns. A lot of times, have to say that, I have become involved or frequently asked to see adolescent children of faculty members where I am at Hopkins that it is tough to figure out exactly what some of them use. I frequently get a phone call, can I help someone's college student's child, who used something and became paranoid and agitated and when they went to the emergency department, no substance was defined . A lot of times, some of these substances that you see listed are not identified. They obviously have to be of a where they are frequently used. So, early substance use does give a higher risk of addiction. Adolescent immaturity during development is an issue and adolescents are excitement seeking. Our level of risk changes as we get older. As you get older, your likelihood of accepting risk is higher. Younger individuals also have difficulty delaying gratification. That is a term that is common among people in addiction, in terms of delayed gratification, but it is even more common along adolescents. Because of brain development, there is poor executive function and inhibitory control. Associative factors, you can see them listed here. They are things to think about, having a parent with substance use disorder. I have certainly taking care of individuals who are third generation of substance use disorder. Just because your parent has of does not mean you will develop it but it is a factor. Mood disorder, learning disorder, poor school performance, low self-esteem, early sexual activity, substance abuse with peers and this is definitely where peers pay a very large role of the risk. Availability up substances in the community and dysfunctional family and parenting. Having said that, these are associated factors. Because some of these are present doesn't mean that the individual is destined to have substance use disorder. This is from two years ago. This is the most recent epidemiology. I have to say, as I even review the slides, I pause to think about how COVID may have impacted some of this data. It is hard to know whether COVID impacted it in a positive way or a negative way, especially for adolescents. Adolescents are more likely to be learning from home than around their peers. We will have to see what the next model of the future is, whether or not it was a good impact or a negative impact . I think it is different for adolescents, versus older adults where I think COVID may have impacted. Pre-COVID, one third of 12th-graders reported past month use of alcohol. Compared to previous surveys, it was less binge drinking. Synthetic cannabinoids, without a doubt, they have been marketed toward adolescents. If you see the, names, Scooby snacks, the packages are often sold at gas station markets. They often have cartoon figures and are aimed at adolescents. There was a drop in the most recent use in the most recent survey. Vaping is where the has been an increased concern. You can see it here. This survey, one quarter of 10th-graders and almost 1/3 of 12th-graders are current users of a

vaping products. , especially to hide, those items in which products can be pretty small, one commercial shows it is not much larger than a flashlight. Harrowing use, again, 0.4% of 12th-graders, availability, obviously plays a large role. IDU increased in many urban areas, especially in morbid alcohol and opioid use. This is among adolescents. These are just some random tidbits to think about. Stimulants that involve drug overdoses is rising among youth, the biggest rise is in 11 to 14-year-olds. Stimulants were commonly found or sold among peers. It is often a tie to feeling that stimulus will help with weight loss for women. Inhalant use was associated with violence, criminal activity and other substance use disorder and is the most likely predictor of school dropout. Among college students, depressive symptoms associated with non-medicals prescription drug use, so they would go together. Certainly, there should be some alarm if depressive symptoms are present to ask about nonmedical prescription drug use. I know personally, from having had two daughters recently in college, they let me know how easy it is to get stimulant fluoresce, for instance, even in the library as an a to study. Again, past year nonmedical use of prescription medication prevalence 20%. It is higher among males and members of fraternities and sororities. This is the tool that is most commonly used as we prescreen test for adolescence substance use abuse. The term for this survey is abuse although we would use disorder rather than abuse, currently. The C is have you ever been in a car driven by someone who was high or had been using alcohol or drugs? Again, letting them know it is a risk from not only using the being around someone who is using. I think perhaps copper college students, they don't really have car sharing or car services with easy access through an app and that may limit this but it is still unfortunately,. Have you ever used alcohol or drugs to relax, feel better about yourself or fit in? That happens as an adolescence geared question. Do you ever use alcohol or drugs what you are by yourself, alone? Again, that is the A. Do you or your family or friends ever tell you or do you think you should cut down on your drug use or drinking? F , family and friends. Do you ever forget things where you did using alcohol or drugs and have you ever gotten into trouble while you are using alcohol or drugs. Trouble is meant to be vague. You can see two more yes, answers suggest a significant problem. It is a tool, I know individuals who provide treatment for adolescents may ask these questions or use it to screen as it is answered on the tablet or on a piece of paper. This is a tougher topic in 2021. Do we care about marijuana? I think, for adolescents, we have to think more carefully. For older populations, youth, psychiatric illness and then there are others substance use disorders. There is some data with consequences of intoxication. There is some data out of Colorado looking at increased risk of motor vehicle accidents as a result of intoxication during use of cannabis. For young people, can impact learning. There is "Steppin' Out" literature looking at impacter learning. There could be psychiatric consequences of the use and abuse. Adolescents are increasingly more at risk for progression to marijuana use disorders than others substance use disorders. There is vulnerability in youth. Use in adolescents could be as high as 40%. Daily use of marijuana, again, the frequency of use really does matter as you think of adolescents. Again, this is in studies of individuals less than 17. The daily use is associated with development or persistent marijuana dependence. Again, this was pre-disorder, high school dropout , use of other drugs, suicide attempts. These are odds ratios. That is why

individuals who are in that young age group are going to want to see something to take more seriously and delve into more as we figure out what risk is associated with marijuana use. So this is where we get a little bit stuck. Can we establish credibility despite historic exaggeration? When I was younger, I remember the movie reefer madness. These are two slides , pictures that were publicly shared. A vicious racket with its arms wrapped around your children! The smoke of hell ! You can see all the right, Shane, horror and despair, marijuana, weed with roots in hell, weird and wild parties. That is historically held marijuana was viewed. Can we overcome societal attitudes, right? This is really something to think about. That is why this makes this so far so hard and I basis with my patients that are older, for them, marijuana is different. With adolescents, think you have to think more. Marijuana is addicted addictive but not everyone gets addicted. That is true for other substances, as well. Marijuana can be harmful but not everyone gets harmed. Especially adolescents, broader use leads to broader problem used to access and decreased perceived harm. Again, a large problem for youth and other vulnerable populations. Would about specifically as we think about treatment with adolescents. There are barriers to treatment engagement. Adolescents think they are invisible. There is an immaturity that I have certainly seen. Years ago I attended an adolescent unit . Immaturity is something to realize, even in 17 and 18-year-olds. Motivation of treatment appeal, the treatment may be viewed as burdensome. How do you use family? I think that is something you have to think about. With the you use family leverage or not, you don't want someone, many of you have probably seen the T-shirt, it really shouldn't be viewed in that way of us against the adolescents. The adolescent should feel supported and not that everyone has ganged up against them. The adolescent will give pushback against a sense of parental dependence and restriction. We should always consider comorbidity. So, to make you think and to make it even more difficult, remember that adolescents rely on the support of adults, will we also acknowledge they are striving for autonomy. It is a balance, right? We have to emphasize rewards and praise, emphasize adolescent learning styles. We have to visualize. We have to think about the adolescent in front of us. How do we give therapeutic contact by the same way, making it fun or something that seems interesting? Other alternatives and acknowledge that the reason someone uses something is because they see something positive about it. Figure out what they see positive about their drug use. Acknowledge that there might be thrillseeking, risk or people may seem different than other individuals they have been exposed to. There may be some disruptive behavior but balance it. The hope is that you can weave a safety net of support and expect some negative coming back but the hope is that the positive and negative balances the steps forward. Encourage adolescents to formulate their own solutions. Obviously, if an adolescent thinks something will work and it is reasonable, it is something you should aim for. Give some rope, but not too much. Some other things, like sleep deprivation plays a role, healthy living. I talk about exercise, as well. Sometimes, the benefits can be subtle. I may bring up the someone likes to exercise, perhaps vaping has impacted their ability to have endurance when they are running. We might rehearse some aspect that could be around peers, how will you say to appear that you have decided to make a change? How will you do that? I included this slide, I always hated the term rehabilitation. For adolescents, the term should never be used , right?

It means that, it is really what abilities and, not rehabilitation. It is late adolescents are learning how to live their lives in these terms are obviously once we should avoid. Any lingo that seems trite we should avoid. These are some of the motivational approaches. Do you know other kids who have been in trouble? What are the pros and cons for you? How much do you think is too much? I always say that the reason you use is because you like it and what are the reasons? What are the health risks? If it did become a future in that time, if it became a problem, how would you know? Do you know why I or your parents might think it is a problem? If you can stop anytime, would you be willing to see what it's like? How about you stop using for a couple days, today or tomorrow, something short. Never use the term forever. Let's schedule you to come back and see how it is going. With families, that is often the hardest part , monitoring and supervision, support of teacher communication and there is a balance. You will have to discuss that we are looking for progress and not absolutes to start. Engaging families is really important. I like to say patients need a fan club, just like athletes do better when they have a fan club. As a provider, we will see if others can join your fancred club. I often say that, as well. This is the first audience question, which is not a risk factor for substance use disorder in an adolescent? A, mood disorder, B, having a parent was substance use disorder, C, early age of puberty and D, poor school performance. I will pause while you put your answer in. I did discuss which one of these, which three of these are risks. The ones that are are here. Early age of puberty is not a risk factor for substance use disorder in an adolescent. This is a quick vignette. I encourage you to put an answer or discuss in the chat so that other people can see what you would say, as well. The 70-year-old male began prescription opioids at 15, progressing to daily use with withdrawal within eight months, nasal heroin at age 16, injection heroin six months later. Three episodes with residential treatment, two times he left against medical advice and finished once. Presents in crisis seeking detox, can I be out of here by Friday? How should you care for him? I encourage you to put answers in the chat. I will offer some thoughts but not necessarily an answer. Adolescents and opioids, medications are feasible and effective. Remember, if morphine is approved for 16 and up, and there are studies to show that it is better than not, adolescents with nonfatal opiod overdoses should be strongly considered for buprenorphine treatment , you should think about medications, especially in this setting. Naltrexone, I have to mention, it requires acceptance with some concern over retention. Adolescents could see a good choice. Residential could be effective as one component of continuum. Residential is a treatment unto itself. With adolescents, I continue to encourage you to think about long-acting Exar buprenorphine, especially in adolescents where you don't have to worry about daily administration of medication. I will take a deep breath and you can take a deep breath, as well and I will shift over to adults. The other end of the age spectrum. Older adults, it is often a hidden problem . There is a lack of Screening in primary care. There is a lack of guidelines, really, I will go through one of the tools, but really, how we should assess older adults is well defined. In older adults, signs and symptoms of harmful use overlap with other conditions. Difficulty walking, problems with memory, overlap. This age is biased. Especially for some of us, it may be more difficult to talk to someone that reminds you of a grandparent that a grandparent may have a substance use disorder. That is certainly something to consider.

This is from an article I wrote with my colleague . It shows some possible signs of problematic substance abuse in older adults. Again, these are all nonspecific. Sleep disturbances, for instance, irritability, a change of coordination, tremors, hygiene, memory impairment, they should raise a thought that there could be something that unifies some of the symptoms, but unfortunately, we attribute some of these symptoms to someone being older and we should not. Remember, older adults are more likely to be isolated. They may be retired or widowed. They may live alone. There may not be family members around for them to know some of the symptoms for some of the signs. In older adults, we often rely on a patient's reporting. It may not be as accurate. Older adults, again, as I said, may not realize there is a change in pattern. Harm can come from lower amounts of substances. Someone may have not even changed the amount they drink but now they have other health problems or are on medications that cause one drink a day could increase the risk of falling and be problematic. It means that at all points in older adults we should be asking question related to substance use disorder, including life events like a retirement or loss of a spouse. We should be Screening on how people may be coping with life. I need to point out, related to COVID, COVID has been a point in which I have asked every one of my older adults about substance use disorder, especially alcohol, because isolation has been forced. Many older adults who went to the senior center can no longer go to the senior center. I recently had one of my patients say, when I asked how they are COVID with, they answered with black beauty. It was something she was having delivered and was finishing off the bottle every two days of black velvet look core is a way to cope. Again, checking in with individuals is really important. Here is another vignette. Each of these, I welcome you putting some thoughts into the chat so that individuals can learn from each other and perhaps we can share and learn , as well, for myself, as well. These are all real patients am I. This is a 72-year-old woman seen for an initial visit because of chronic pain in her hips and knees. Her previous provider will no longer prescribed oxycodone because for the past two months, her 30 day script ran out after two weeks. She was fearful and tearful as she talked to me that I was not going to give her oxycodone, as well. She can't take nonsteroidals and she admitted to me that she often takes oxycodone when she is upset. She lives alone in a senior housing apartment with two daughters. She has limited interaction with them and really she didn't smoke and did not drink alcohol. She actually went through describing a ritual where she would actually open her bottle and counter oxycodone pills daily. She knew she was overtaking them and obviously, as to the amount of pills and the bottle got lower and she would panic even more and she would count her pills all day and she knew she was taking them incorrectly and it was not for just pain. I will offer you to put some ideas in the chat over the next couple of seconds. We will go on. These are some things for older adults. There is opiod use disorder but there is substance use disorder. Living alone with a sense of isolation, sometimes despite family. Opioid or alcohol is a friend. She definitely felt shame and was able to verbalize her shame. She was fearful of how to live without opioids. What about opioids and aging? A 2010 analysis of Medicare claims data of older adults who were prescribed opioids, in comparison to those prescribed NSAIDS, had significant higher rates of cardiovascular events, fractures, hospitalizations and death and the risk for gastrointestinal bleeding was higher. I will put that in the

background. I will also put in the instance that in general, euphoria from opioids diminishes with age. That is aging of the receptor. Countering that with older individuals who have been on methanol treatment for many years who, interestingly enough, have an easier time coming off because they felt like they did not need it. So, for geriatric individuals, this is something to really make a battle with older adults. Avoid NSAIDS, muscle relaxers and trim at all. Older adults are at risk from trim at all. Avoid opioids if history of falls or fracture. Avoid tricyclics, including amitriptyline. There is not much left. I will just go back. What I did for the lady we just talked about is that I offered her some thoughts. She actually agreed she was using oxycodone incorrectly. By the criteria, she had substance use disorder. We discussed options for her. You can see them on the sly. We talked about SS and Arai for pain. I entertained the use of morphine for pain and for substance use disorder. She actually did very well. I will just pull to the future. Two years later now, she remains on 4 milligrams every day. She has become somewhat less isolated, although I was worried and stay in close contact with her. She immediately noticed a difference . It was laid out. She could only take it in the morning and the evening. She no longer had this ritual of clout counting her pills . She engaged in doing crafts and other things, as well. This is an 82-year-old woman brought to the ER by a Nirmal a neighbor with syncope. Her son, who was a physician, that is how I became aware of her, goes to her home and finds hidden miniatures of Kahlúa throughout her apartment. How do you approach caring for her? Again, I ask you to put some thoughts in the chat. She was embarrassed. She was really ashamed. It is interesting that she lived alone but she still hit her alcohol and she only used miniatures. She did not have a large bottle. In her instance, I could tell you, part of the plan was family rallying around her . Undoing isolation. This was just for COVID so she became involved with a senior center. Socialization. She is not someone that I referred or thought I needed to go to Alcoholics Anonymous. She needed support. This is the MAST-G, a screening tool used in geriatric populations that is annotated. It asks specifically in the past year, there is a time sequence where we are talking with others when you estimate how much you actually drink, do you , after a few drinks, have you sometimes 90 nor been able to skip a meal? Does having a few drinks help decrease your shakiness? This alcohol remember this might make it hard to remember parts of the day? Do you use it to calm your nerves? Do you drink to take your mind off your problems? Have you ever increased your drinking after experiencing a loss in your life? Has a doctor or nurse ever said they were worried or concerned about your drinking? Have your for me rules to manager drinking? When you feel lonely, just having a drink help? Number 10 is very important for older age groups, it is a uniform positive for the most part. There are five answers that indicates an alcohol problem with the sensitivity and specificity that varies somewhat, depending on which study. Again, I will go through some vignettes that I hope you will share in the chat. This is a successful 79-year-old businessman with hypertension and recurrent depression who worries about his memory. The initial valuation he performs well on cognitive testing. He has two stiff drinks every evening and often has a third after a stressful day. He is defensive about his drinking because this is a long-standing pattern that he enjoys. You can share in the chat. One of the key areas, even in someone who has not changed the amount they drink, as for the 79-year-old, there is a

concern. I will share guidelines based on that in a minute. I once had a lady with pretty bad rheumatoid arthritis but when she ran out of the medication she was given, it said do not drink alcohol. She decided not to take the medication, which told me that the alcohol was more of a part of her life than I realized.

Late onset, more likely to be triggered by life events, occasionally you can see someone who did not drink at all until they retired or were widowed. In this cohort of late onset, women are more common than men. Part of that is related to the fact there are more widows than widowers. Be aware there are more women in this category. This should be focused on. There are AAA guidelines for older adults. Again, there is a proviso re-. If you are healthy and do not take medications, right? This goes out the door if someone is on medication that can cause sedation or have drug interactions. Three drinks on a given day and it is not gender-based, unlike the guideline for younger adults. Seven drinks in a week, again, not gender-based, seven drinks in a week. Just quickly, some prevalence studies of heavy drinking. You can see about 6% of 54-year-olds. What I want to focus on here is the bottom. I think most of you do not realize this. The prevalence of binge drinking five or more drinks on the same occasion on at least one day in the past 30 days is 9.1% of those aged 65 and older. Remember, I told you that the guideline is only three in younger adults. Almost 1 in 10 minutes, 1 in 11 of those over age 65 have had five or more drinks on occasion in at least the last 30 days , one day. Again, these are people who have comorbidities, people on medications. That can really be a danger set up for a fall. Another audience participation question, which is a screening tool specifically assessing alcohol use disorder in older adults? I will give you a few seconds. Is it CRAFFT , T.W.E.A.K., CAGE-G or MAST-G?

It is MAST-G. I alluded to the fact there is an increased risk of alcohol in Conception. Older adults have less muscle mass and decrease total body water. There is less efficient letter liver enzymes that medicalize alcohol. That level tapirs more slowly. I mentioned, again, medication interactions. There is some data that women experience alcohol-related harms at lower levels than men, especially with cirrhosis. Again, audience participation question. And I AAA guidelines state that for someone over age 65, alcohol intake should be limited to, someone who is healthy, alcohol intake should be limited to, four drinks on a given day, seven drinks in a week, for men, or two weeks in a day. Remember, for older adults, there is no gender aspect. The amount for drinks in a day was three, which for older adults, seems like a lot. The answer is B, seven drinks in a week. That is an important answer. This 78-year-old male has Alzheimer's dementia and is being cared at home by his daughter. The daughter requires the use of cannabis to help with agitation. As more and more states have cannabis available, some of you may have asked in the situation, can it be certified by parents to get cannabis? I encourage you to add in the chat. I will go on with information, but it is something to think about. This will happen more commonly. There is one more slide on cannabis , I think, and then I will discuss it. An 82-year-old on antidepressants, with recurrent depression which is being treated late into worries about cancer or help . He reports he decided to go to a marijuana dispensary to try cannabis to see if he can help his anxiety. How do you respond? Again, I encourage you to add in the chat room.

Again, this is another situation we are commonly asked about cannabis. Prevalence of marijuana use among older adults has increased. This is, again, this is data through 2013. The data currently will be even higher. The majority of older marijuana users received no risk or slight risk from frequent use. We need to come up with better studies. Older adults see marijuana as a safer alternative to alcohol, opioids or pharmaceutical medications. You need to be informed. Short-term use is associated with impaired short-term memory, impaired judgment a motor Corporation and driving skills. As we learn about older adults' reaction time, it may not be a good choice. We have to inform older adults. For most older adults, it actually increases anxiety according to studies. There are paranoia and psychosis as a dose-response effect of that. I think we have to be careful. This is the last thing yet. This is a patient of mine. He is a 72-year-old man who I saw for an initial visit. He has type II diabetes and hypertension. He lives with his wife, three daughters but one of them is a medical assistant. Eight grandchildren . He enjoys watching sports and getting together with friends every Friday night to play pinochle and most times there is crack cocaine use. We just unwind and have a good time. My question is, how should you address cocaine use? What if he instead drink three or four beers to unwind? I say this, because for him, it was the societal norm. He did not see any harm to it. We have to be careful as we talk about individuals, he thought it was okay. You can share in the chat your thoughts. He did not realize there was a rest. Certainly, I shared those wrists and I was concerned because he was somebody who had diabetes and hypertension. He could've had coronary disease, too. He denied chest pain when he used but we had a conversation, actually, as a result of that conversation, he realized it was not safe for him to continue using. I think the flavor of my interaction was he was able to explain and matter-of-factly tell me he was using crack cocaine on a Friday night. How we approach older adults, I think, is really important, making them feel comfortable to discuss what they do on a daily basis, how they unwind, how they relax. The treatment approach for older adults is, I think, somewhat similar to what we do in younger adults. Don't enable. Confront with compassion. Remove shame. The older woman who was drinking miniatures at home had shame. She needed self-esteem help. I work really hard to give hope. Older adults that likely have a good outcome is very high. We do have to undo isolation, special in older adults. We work on coping skills, socialization and finding new ways to stay busy with the use of peers have a right? Someone who is 75 going through a 12 step meeting with a 20-year-old is not useful. Some conclusions, treatment for youth and the elderly is effective, but we need to learn to improve it. There isn't enough of it. Access and engagement is a problem. Treatment works. We are really at a crossroads, especially in the setting of the COVID epidemic. We have an obligation to do better. These are some references. The second one, this is specific to encouraging the consideration of medications for adolescent fluoresce for substance use disorder and the second one is specific to older adults. Thank you. >> Thank you again. [Event Concluded]