Transcript: Girls and Women-- Substance Misuse Trends and Prevention Strategies

Presenter: Erin Ficker and Stephanie Asteriadis Pyle
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REBECCA BULLER: Who is joining? Welcome to everyone who is joining our webinar this afternoon or morning, depending on when you-- where you are. How we will get started in just one minute.

For those of you just joined us, we will get started at 12:01. We just want to let lots of people get into the webinar room. There's many of us here expected today.

All right, I would like to welcome you to this webinar. My name is Rebecca Buller, and you are here to hear Girls and Women-- Substance Misuse Trends and Prevention Strategies. Our presenters are Erin Ficker and Stephanie Asteriadis Pyle.

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A few housekeeping items-- if you have technical issues, please individually message me, Rebecca Buller, or Jen Winslow in the chat section at the bottom of your screen, and we'll be happy to assist you. Questions for the speakers-- please put those questions in the Q&A section. Again, we're a large group, and if you put them in the chat, we might miss them. So please put them in the Q&A section also at the bottom of your screen, and we'll do our best to have those be addressed during the webinar.

You will be directed to a link, a short survey, at the end of the presentation, and we would really appreciate it if you could take time to fill it out. It takes about three minutes, and it helps us report back to SAMHSA and continue to provide these trainings for you. Certificates of attendance will be sent out via

email to all who attended the full session, and it can take up to two weeks to receive those certificates.

Get connected. If you want to know more about what we're doing and what's coming up, please go to our websites, our social media platforms, and check out what's happening. And now, I'd like to introduce our presenters.

Erin Ficker serves as prevention manager for the Great Lakes PTTC. For more than 14 years, Erin has worked in substance abuse prevention, supporting communities to use evidence-based strategies and data-driven processes in substance abuse prevention planning and implementation. She works with community-level prevention practitioners and schools in the development, implementation, evaluation, and sustainability of prevention interventions.

Stephanie Asteriadis Pyle is an emeritus at a former-- and former project manager for the Center for the Application of Substance Abuse Technologies. She established Nevada's University of Nevada-- oh, I'm sorry. I did that wrong.

She established the first Substance Use Disorder Library and Clearinghouse at the University of Nevada, Reno campus and, during her tenure, served as the C01, or PI, for 36 grants and contracts for substance use prevention for students at UNR and Truckee Meadows community college and problem gambling prevention for aging populations in Nevada. I'm going to turn things over to them and welcome you one more time. Thanks for being here.

ERIN FICKER: Thank you. This is Erin Ficker, and I just want to thank you all for being here with us today. As Rebecca mentioned, my name is Erin, and I'm a prevention manager here at the Great Lakes Prevention Tech Transfer Center.

And my intro is a little old. I've been a prevention closer to 17 years now, which is just crazy. But I'm happy to be here today, and we're so lucky to have Stephanie with us as well. I want to just acknowledge-- there's Stephanie.

I want to acknowledge the wide array of folks we have with us. I saw a lot of familiar names and organizations run past, which is lovely. But we have people from Oregon, Michigan, Texas, Ohio, Illinois, Indiana, Iowa, Arkansas, Maine, South Dakota, Chicago, which is where I'm at today, California, North Carolina. I saw someone from India, who wins the award for the furthest away.

So thank you for taking the time to be here with us today. We will be discussing a very important topic, which is girls and women and substance misuse trends and strategies, specifically for girls and women. So we're really excited to dive into this topic. Our objectives today are to identify some of the trends in misuse among girls and women, also including some of the related consequences.

And then we're going to describe some of the factors that place girls and women at risk and list some of the strategies shown to be effective with this population. We do welcome your questions, and as they mentioned, please put those in the Q&A section. Excuse me. If you please put those in the Q&A section so we can make sure that we don't lose them in the chat, we will, a couple of times, take a time out to answer questions. If we see something relevant, we'll try to stop in the middle, if that's possible.

So thank you so much for being here, everyone. We are delighted to dig into these objectives. I want to take just a minute to talk about population-specific prevention. And population-specific prevention is not something that we've done in prevention very often, and really, it's-- our prevention efforts have often been focused on one audience, on that universal strategies that get to a large swath of the population in an effort to kind of have a greater impact, which is understandable, given our funding and our capacity.

However, we know that population-specific prevention is incredibly important. It's important to understand how subpopulations within our communities experience risk and protective factors differently, how they experience use and consequences differently, and how we can serve them in a way that is culturally sensitive and appropriate so that they get what they need and that we really have that greater impact that we're looking for. So today, we're going to dive into how we can and should consider strategies related to preventing substance misuse in girls and women.

Often getting to this understanding of girls and women means that we will have to desegregate our data so that we can look at women and girls and their use patterns in a different way. So disaggregating data is something that we'll have to do in order to get there to understand those differences across the community, and we'll talk about that a little bit more as we go. But I'm curious right now if you guys can answer a question for me.

And so we have a quick poll for you, and what we're looking to understand is, how much knowledge and experience do you have with prevention focused on women and girls? So we're going to launch that poll, and if you could just

answer for us, do you have a lot of experience working with this subpopulation, some, a little, or none?

And we're going to just give it a minute to let these answers kind of roll in, and I appreciate everyone just kind of jumping in there and answering the question. Thank you so much. As I see answers rolling in, I see a little and some are kind of those primary answers that I'm starting to see as people are looking at how many-- oh, they just keep coming. This is amazing.

So we have about almost 40% of folks who say they have kind of a little experience and 35% saying that they have some experience. So that's great that we have at least a little or some knowledge of this topic. So hopefully, this webinar today will help us dive in a little more. Understanding your knowledge level will help us understand how we can cover this topic in a way that is useful to where you're at in your work.

OK, thanks so much for sharing that poll with us, and we can go ahead and take that down. And I want to share with you kind of where we're going. So we're going to start with a look at prevalence and trends, and we're going to break that down a little bit.

We're going to talk about tobacco use, alcohol use, cannabis-specific issues, illicit drug use, and then a little bit about disorders and how they work in different populations. So that's kind of our roadmap, at least for my beginning section, where I'm going to go over some data.

I want to be clear that if I go over this data too quickly-- which is going to be kind of hard to not. There's so much to cover-- there will be a recording of this webinar available, including a PowerPoint and a resource document that we'll be sharing both at the end of this webinar and that will be available on the PTTC website. So I just wanted to make that really clear.

So in prevention and in our work, we look at the sex and gender differences in substance use. So generally, we tend to understand that men are more likely than women to use most types of substances. Illicit drugs are more likely to result in emergency room visits or overdose deaths for men than women. And for most age groups, men have higher rates of use or dependence on illicit drugs than women, so we see that there's a difference right off the bat.

But women are closing this gap, and we're seeing some disturbing or alarming data that show alcohol, tobacco, and other drugs are increasing in women and girls. We know that women face unique challenges that are

different than men's unique challenges, and when it comes to substance abuse, we see a difference in both sex and gender.

And so when we talk about differences, when we look at sex differences, we're talking about results from biological factors such as hormones, our bodies, the physical differences. And when we talk about gender differences-- and we're going to get into an example in just a second-- we're talking about kind of culturally defined roles for men and women as well as those that influence how people perceive themselves, how they interact socially.

So it's more of that kind of social component, and they can really impact the way that we see what's happening with substance misuse trends in men and women differently.

So to give an example of the difference between sex and gender, I want to focus a little bit on-- and too many slides here-- on one example of smoking cessation. So again, that sex difference we look as a result from biological factors whereas that gender difference is based on culturally defined roles for men and women that may be different and place different pressures. So when we think about smoking cessation, as an example, we know that women metabolize nicotine faster than men, so there's a difference in how that nicotine impacts women in a faster way-- excuse me-- which often means they have a harder time quitting smoking than men do.

They often have-- are more likely to revert in their behavior after trying to quit. We also know that women may be more susceptible to men to non-nicotine factors, and those non-nicotine factors are things like thinking about the sensory and social stimuli that we get from smoking and nicotine use, also the sensory triggers that they may have to visual or sensory or smell triggers. And also women report often feeling like, if they quit smoking, they're more likely to gain weight.

So we don't see these same factors in men that we see in women, so that's just an example a little bit about sex and gender differences in smoking cessation. Oh my goodness, I have a lot of slides here. So what we know to be true is that women are narrowing the gap with tobacco. We also know that the number of smokers has declined substantially from the '70s and '80s that have remained stable, and then we saw a further decline in the early 2000s.

And the decline in smoking was greater among men. So again, if we're thinking about that difference in smoking cessation and why it may be more successful in men than women, we see here that the data reflects that and that the prevalence of smoking is only slightly higher for men today than it is

for women whereas, previously, it was a much greater difference. So we see that women are more likely to relapse when they try to quit, so that's one of the factors that impacts that. Health risks are also different for women than they are for men.

And if I can find that note, yeah, let me go forward and show you our next slide-- whoops-- where we start to move-- so let me just take a quick beat and see if there are any questions as it relates to tobacco. So someone asked, when speaking about smoking, is vaping included in the data? Do you have data regarding the difference between men and women?

So that's a great question. And a lot of our data predates-- so you'll see it's from 2020. Some of this indicates-- some of the data we've looked at includes vaping, but most of it really includes-- is specific to cigarette smoking. But most of the data that we look at between-- with sex differences specifically are specific to nicotine, so regardless of the nicotine delivery system, we look at those same sex differences.

The gender differences in terms of kind of the social component may be different. So thanks for that question. So it looks like some people, Jennifer, are having a little bit of trouble viewing the slides. So our tech team will help you guys with that.

OK, so I want to move on from tobacco and talk a little bit about alcohol. So this is where we're seeing this increase in use and this closing of the gap. In 2020, girls and young women-- so that age range of 12 to 20, so that girls and young women were more likely than boys to say they've used alcohol. So that was-- that's pretty substantial that we're seeing this gap close between girls and young women.

Here, we go. However, this trend kind of continues, so for the past two decades, it hasn't been this way. And then now we're seeing this change, so it's been 20 years that we've seen kind of a steady boys and young men using at greater rates. So you can see here in this slide that 36.7% of girls are reporting compared to 32.7% of young boys and men reporting using alcohol at least once in their life, and then in the past year, we see a big gap as well, 31.6% of girls and 27.9% of boys.

So that's not an insignificant amount of difference between the two, and this is where we have to start thinking about, what is it that's impacting this use? And that's where we start to get into risk and protective factors. What's the why behind this? And Stephanie will get into that a little later, but right now, we want to just look at what's happening overall.

So let's move on to alcohol use among adults. So we looked at young adults, our young girls and young women, and now we want to talk a little bit about alcohol trends among women and men, or males and females. And this particular slide kind of focuses-- it's all data from the Monitoring the Future survey, which is a really well-established survey that we have-- we've been relying on for years and has a really consistent track record.

So you can see in 18- to 22-year-olds, we wanted to divide it by college and non-college because there's often been a substantial difference between those two populations. And you can see alcohol use-- reported alcohol use-- and this is at any time in their life-- and being drunk at any time in their life. So this is lifetime data that we're asking about.

And alcohol use among men, you can see in the first two sections, it's greater among college, young men-- or excuse me, adult males in college versus women. So we see that higher rate in women, where we see 61% of women in college reporting that they have drank or been drunk in their lifetime and, again, just slightly higher data among non-college females.

So I've seen a lot of people having trouble viewing my Screen is $that Rebecca, can tech team let me know?

REBECCA BULLER: We are troubleshooting. I can see the slides. If somebody-- OK, other people are seeing it.

ERIN FICKER: OK, great.

REBECCA BULLER: Everybody, if you look-- if you go to your view settings in the top right corner, you can-- excuse me, you can change your view settings and your my view. Thanks, everybody, for letting me know that you can see it.

ERIN FICKER: Yeah, thank you. That's very helpful.

REBECCA BULLER: Thank you.

ERIN FICKER: Sorry that we're having a little bit of trouble there. So just a couple more pieces on this is some of the gender differences and consequences we see that are unique to female drinkers is that heavy drinking is more associated with having negative social consequences and

engaging in risky behavior or becoming a victim of sexual assault or violence. In addition, drinking has a link to breast cancer in some women, so that's some of those gender and sex differences that we see.

Women metabolize different-- alcohol differently also due to the way that our bodies work. So after drinking comparable amounts of alcohol, women have higher blood alcohol concentrations. So it's just something to keep in mind when we think about how we're talking to young women and girls about alcohol use.

So thinking about disaggregating this data even a little bit more-- and this is really important that we continue to think about how there is a need to dig even deeper in what is it that's impacting data or use patterns in not just women and girls generally but also in sexual minorities, or those who identify as lesbian or bisexual.

So we look at this data about binge drinking. So we go from what we normally define as binge drinking in this chart all the way down to very heavy drinking. And we see that the rates between heterosexual women and lesbian and bisexual women are substantially different.

This is a place where you can and, if possible, disaggregate data as much as possible to get an idea of what's happening with these groups in your community and if you want to-- excuse me-- think differently about how you reach and talk to and support and provide strategies for this population.

So we see that sexual minority status, lesbian and bisexual, among women has a greater impact on their drinking habits than we see with gay and bisexual men. Just a little bit different between that gay and lesbian column with men and women, the bisexual column very different as well.

So we see that-- so binge drinking is considered a number of drinks over five drinks in one setting, in one period. So you see that these are much greater. So we're really starting to look at that.

So some of the data that we looked at from the National Epidemiological Survey on alcohol suggest that lesbian and bisexual women are twice as likely to engage in-- oh, I'm sorry. Are my slides going nutso? Sorry.

Are twice as likely to engage in binge drinking. So lesbian or bisexual women are also more likely than heterosexual women to consume 12 or more drinks,

which is a substantial amount of binge drinking and a concerning number. Again, we want to think about how we reach those folks. So according to-- yeah, so according to that survey, we do see that alcohol use does not decline with age either.

So as we look at that, sexual minorities relative to heterosexual women do not-- their use rates do not decline with age as we do see in heterosexual women, so again, disaggregating that data to understand who is experiencing these higher rates of alcohol use and how we can look differently at are risk factors.

So that's kind of a quick snapshot of some of the alcohol differences we see between men and women, and then when we desegregate by sexual orientation and sexual minority status, we start to see even greater differences. So yeah, so someone's asking about the data source. So most of this data came from Monitoring the Future. The data you see on your screen here is actually from the National Epidemiological Survey on Alcohol and Related Conditions.

We will have a resource document that we're going to share with you after the webinar, and it will be available on our website, which will have some links to some of these data sources as well. So this is from the National Epidemiological Survey on Alcohol and Related Consequences-- excuse me, Related Conditions. So I want to talk about cannabis.

So we all know that there's been a really substantial change in the way our culture and our communities look at cannabis use, so just kind of recognizing that off the bat. We do know that fewer females than males use marijuana, and the effects definitely differ in how they affect male and female users. So we do also know that some of the consequences and impacts of marijuana use are different, in cannabis use, than in men, and women.

So we know that there's a difference in how spatial memory's impaired in women, and we know that men may actually experience a greater high from their marijuana use. As you dig into cannabis and marijuana use, you start to see really substantial differences, and there's a lot of gender and sex differences that we start to see.

So in one study, specific to teenagers, male high school students who smoked marijuana reported poor family relationships, problems at home more often than females who smoked marijuana.

So what's driving use is actually fairly different when we look at males and females. We also know that marijuana has a really substantially different impact on teen-- on female-- the brains of young women or female teens than it does on males. So that's one of the alarming things that we see.

I want to show a little bit more about the sexual difference between marijuana or cannabis use disorders. So when we look at marijuana use, or cannabis use, disorders, so that specific disorder is associated with an increased risk also of one or more mental health conditions such as depression or anxiety. It impacts-- so we see here that, for men, other substance use disorders, antisocial personality disorder, and severity of their disorder is often greater with marijuana use whereas the side effects or the consequences for women are often more associated with panic attacks, anxiety disorders.

And what we also see is that reaching that clinical definition of a marijuana or cannabis use disorder actually develops more quickly in women, which impacts how we want to think about interventions and strategies, how we think about approaching this topic with girls and women, knowing that we may have to act more quickly or earlier in their lives. F Stephanie will talk more about that a little later.

So this next slide I'm going to show you, I want to be clear, is a little-- there's a lot of information behind it. However, I also want to be clear that this particular chart is about new customers. So this is people who are purchasing cannabis products for the first time. So obviously, we're going to see a change in behavior from 2018 to 2021, given the change in laws across the country.

So this is important to understand when we see that, at the beginning of this trend in 2018, when we saw an increase in the use of people legally purchasing marijuana or cannabis products in their states where the legalization has taken place, the new customers were largely men. So first time customers in 2018 were 62% men and 38% women. As we move across the next four years, we see this narrowing of this gap.

So men actually decrease in the number and women increase in the number of new customers. So those are new people, and this doesn't include kind of illicit purchases that are outside of a legal purchase in those states where cannabis has been legalized. So this is really data that comes from that, and you can see it comes from an exploring consumer trends and cannabis data that we got from Headset Data. So it's an interesting trend in new customers, meaning that women are more likely to begin using more recently.

So moving on, women are quickly becoming-- at the rate of increase that we're seeing are quickly becoming what we might expect to be, at some point, the largest demographic of cannabis users. So even though their market share is still smaller than men, we did found that they are increasing their use.

We can see that here, as we get into a little-- so I'm going to pause really quick and ask if there are any cannabis- or alcohol-related questions because I kind of went through that stuff pretty fast.

REBECCA BULLER: Well, there are.

ERIN FICKER: Oh, there's lots.

REBECCA BULLER: What I will do is quick just read some through.

ERIN FICKER: Thank you.

REBECCA BULLER: Have you seen the term high-intensity drinking in anything else besides the MTF release last week? That was the first I had seen it for over 10 drinks.

ERIN FICKER: You know what? I haven't seen that definition anywhere other than Monitoring in the Future, so thanks for that question. You're right. That is new information that's just come out and phrased it in that way. So I haven't seen it yet, but I do think we're going to start to see that more and more.

REBECCA BULLER: We have a quick question about, could you tell us the data source, again, please?

ERIN FICKER: So there's a number of data sources that we use, so Monitoring the Future is one. That is a long-term study. The other one is the National Institute on Drug Abuse Research that-- and then my other one is from the National Epidemiological Survey on Alcohol and Related Conditions. So those are some of them, and again, we'll be providing that information in the coming days.

REBECCA BULLER: OK, we've got a number of folks with lots of questions. Why don't we try to adjust them as we-- at a later time?

ERIN FICKER: Sure. So there's one question I do want to answer, and there's a question about, how has the increase in alcohol use changed in the aftermath of COVID-19? And is there data about how that looks now?

So that's a great question. It's something that we've talked about in some of our alcohol policy trainings as we've talked about the change in alcohol policies that were driven by the COVID-19 pandemic and lockdowns and that sort of thing. So we definitely have seen a change. Whether or not we've seen a return to baseline or pre-pandemic levels, or, as I say, the before times, I haven't seen that yet.

We do know that, during the pandemic, women did drink-- report more drinking than men and greater levels of drinking than they had prior to the pandemic. So I know that doesn't completely answer your question, but I do want to address it because I think we definitely saw a substantial change in alcohol policy.

STEPHANIE ASTERIADIS PYLE: Erin, I just want to say that, in a future slide of mine, I will cover that a little bit.

ERIN FICKER: Awesome. Great. OK, cool. So we've got tons of great information, so I kind of want to keep going so we can give her time to go over all that great stuff. So illicit drug use in women-- so the major concerns we see are-- and you can see in this slide. When we look at the different types of drug that women are using, we see a greater use of opioids, marijuana, and methamphetamines as kind of the larger and growing-- excuse me.

We do know that as it relates to heroin and prescription pain medication, we do know that women are often prescribed greater higher doses and more prescriptions for pain, which makes may be why we see greater levels of prescription drug use in women. We also know that women are-- when you adjust for age, the death rate for women is going up, and women are more likely to die from an overdose than men. So women may be more vulnerable to the rewarding effects of those drugs.

And often, when we think about-- thinking about all the different ways that women experience overdose is-- let me see if I have-- yep. We do know that mortality rates for women have increased. Since 2019 to 2016, we saw a 507% increase in mortality rates from overdose, so a-- across the country, we have seen-- and across the board, we've seen a huge increase in the number of overdose deaths in this country, but women are experiencing that increase at a greater rate.

We also know that they're more likely to have polysubstance substances in their systems when using opioids, which leads to higher overdose rates and more likelihood of death from those overdoses. OK, so-- and I'm just going to touch on this really quickly as a consequence. Drug arrests for women have skyrocketed whereas drug arrests for men have dropped or kind of leveled out to 20-- or excuse me, to 1990 levels, which is a really interesting statistic as we look at the percent of change.

So the percentage change is substantial, and it's actually more significant in white women than in women of color. So again, this is why we wanted to segregate data and look at it differently. This is a consequence that we need to consider when thinking about acting and for prevention. So I just wanted to touch on that briefly as a consequence.

Women and alcohol use disorders-- so when we talk about any disorder, we do know that alcohol use has been driven-- alcohol use disorders is driven a lot by binge drinking and incidents of heavy drinking. So we know that as women are reporting greater binge drinking episodes, we're more likely to see alcohol use disorders develop in women, and again, that seems to happen more quickly in women than it does in men.

So again, that impacts how we want to think about interventions. Women are just as likely to develop a substance use disorder, whether it's an alcohol use disorder or a substance use disorder, and women may be more susceptible to relapse, which really kind of increases that cycle of addiction.

When we think about the consequences related to substance use, alcohol use and their disorders, we know that health conditions on a gender-specific consequence, there's not a ton of data here. But we do know that the health consequences are different from what data we do have, again, which is why we want to look at consequence data in a disaggregated way so we can understand that in our prevention work.

Morbidity and mortality rates, illness and deaths, show that, because binge drinking has increasing in women, we're more likely to see adverse effects, both mental health effects, which can lead to that suicidality and suicidal ideation in women associated with acute alcohol intoxication, which is true for both men and women.

Women can have greater mental health consequences from substance use and alcohol disorders. So we just want to be clear that impacts women maybe

in a different way. And then we also see differences in behavioral and social consequences, such as alcohol-impaired driving, sexual assault, and intimate partner violence we know are impacted differently in women than they are in men, again, something we want to think about when we think about consequences when we think about our approaches to prevention.

So I am curious-- and there's tons of questions. So I want to make sure we see the-- I take a look at those. But I also am curious, kind of in the chat or in the Q&A, if you can share with us, what squares with you from this data? What is it-- is there anything when looking at this data that makes sense to you that squares with your experience? So either in the chat--

SIRI: I didn't get that. Could you try--

ERIN FICKER: That was Siri. OK, any questions in the chat or anything you want to share about your experience with alcohol?

STEPHANIE ASTERIADIS PYLE: Or I can chime in, Erin.

ERIN FICKER: Please.

STEPHANIE ASTERIADIS PYLE: I think, for everyone, what we're asking is from all of the data that Erin has presented, is this what you all are seeing in your experience, in your communities? Are you seeing something different? We would like to really know if this data reflects what you're experiencing.

ERIN FICKER: OK, so I see a couple of comments. The susceptibility to relapse seems to make sense for some people due to the unique stressors and mental load that women often carry. The data aligns, so some people are seeing alcohol zones differently and made alcohol more available and more present in their communities. Someone saying that they work in schools and they're seeing a lot more girls than boys being referred-- getting referred to discipline in at school, so that seems to line up.

So someone says they'd be interested in whether increasing drinking for women during the pandemic might be because of the documented work-life balance. Again, someone mentioned mental load which is very different among women, so I think that there is some speculation that that's what's behind it.

So you're seeing an increase in stimulants and a decline in opioid use among pregnant women, so that's really interesting, and we do know that all of these substances have a very different impact on pregnant women than women who are not pregnant. The piece that really hit me initially was the increase in intimate partner violence. Absolutely.

STEPHANIE ASTERIADIS PYLE: So--

ERIN FICKER: Go ahead.

STEPHANIE ASTERIADIS PYLE: Basically, we're seeing both. People are seeing some unique data that maybe wasn't represented or that we haven't talked about quite yet but some really interesting takes on the data. You think it's time we go look at what are some of the unique risks that--

ERIN FICKER: Absolutely.

STEPHANIE ASTERIADIS PYLE: --research has identified.

ERIN FICKER: So I think-- absolutely. I think people are already kind of starting to get into that, what are those unique risk factors. So Stephanie, I'm going to turn it over to-- oops, my mouse is really overexcited. So we're going to go over to and look at Stephanie's information that she's going to share with us about risk factors and strategies.

STEPHANIE ASTERIADIS PYLE: Right, so far with the data we've used, there is a big increase in substance use and misuse among women and girls and that it's beginning to alarm people because it's approaching that of men and boys. And that hasn't historically been the case. So one of the things that I think has been pointed out that women face unique issues in substance misuse, and we haven't had a whole lot of studies on what those differences are.

So I did locate one study. It was actually done way back in 2003, and it was a three-year study of girls and young women ages 8 to 22. And it was called Formative Years-- Pathways to Substance Abuse Among Women Girls and Young Women, Ages 8 to 22. And at that time, the chairman and president of CASA, who produced the study, was Joseph Califano Jr.

And he described it as a three-year study that revealed that girls and young women use substances for reasons different than boys and young men, that the signals and situations of higher risk are different, that girls and young women are more vulnerable to abuse and addiction.

They get hooked faster. They suffer the consequences sooner than boys and young men. And so his urging was for an overall overhaul of how we approach prevention, in other words, doing away with nonspecific interventions and programs and strategies and really try to begin to make our strategies and programs more gender specific and in recognition of the differences.

So the biological risks that were identified in this three-year CASA study included such things as inherited risks and genetic conditions. Some studies found that mental health disorders tend to co-occur with substance abuse or substance misuse more in women and girls than in boys and men. There was another study done that'd cited in the CASA report that said daughters of women with alcohol use disorder tend to have a greater physiological tolerance for alcohol, which increases the risk of heavier drinking and subsequent alcohol problems.

And then there was another study cited that women with a family history of alcohol use disorder salivated more when exposed to alcohol and, potentially, were at increased risk of cravings due to that biological difference. And other biological differences that girls sometimes go through-- early puberty.

And girls who mature faster are at increased risk for substance abuse or substance misuse earlier and more frequently and in increased quantity-- quantities than peers who mature later, so early puberty. Smaller amounts of substances are also required to experience the effects of the substance, whatever it is, in girls and women.

One that I added was the ability to bear children because it impacts both the person using and their unborn child. Substance use, we need to remember that the risks are cumulative and correlative, so the more of these risks that someone has in their biological makeup, that's going to impact the girls and women more intensely. Just to move on to the next slide, gender risks in the next category are personal attributes, attitudes, and childhood experiences that increase risk.

And in the same CASA of study at CASA Columbia, one of the things that puts girls and young women at risk is depression. Another one is low self confidence, concerns about appearance and weight that are more generally

found in girls and women than boys and men. Girls with conduct disorder are at more risk than boys with conduct disorder because it manifests differently in girls.

There's some evidence that girls have lack of empathy for others and frequent lying, more impulsivity, and lower self esteem. And those things also might be future precursors of substance use or misuse. Academic problems of course have been identified in girls as a personal attribute.

Girls are more likely than boys to engage in disordered weight-related behaviors, and that's strongly related to female substance use. Girls who think smoking helps people relax reported smoking more. Who knew? Those who think that it makes people look cool or don't believe that it's easy to become addicted show a greater increase in smoking across transitional times of life. Girls who think that drinking alcohol helps with being bored or sad or depressed do report more alcohol use, so they may be impacted by these things that they see in society and make that part of their makeup and their response to alcohol and other substances.

Childhood maltreatment, including sexual and physical abuse, is one of the greatest risk factors for substance misuse among girls and women. It probably impacts them a great deal more than boys and men. Stress and poor coping also are related, and we did see this during the pandemic.

Stress relief is one of the most common reasons given by girls for engaging in substance use, and it isn't so with boys and men. Girls are likelier than boys to respond to stress with particularly smoking. Females internalize reactions to stress by becoming withdrawn or depressed more often, and males tend to externalize by becoming aggressive or engaging in delinquent behaviors.

And so the next slide, I'm going to expand a little bit on the risk that stress plays in girls and women. So we know that stress alone can increase the risk, if we can go ahead and move to the next slide. So one unique study in 2021, the study participants compared men to women in a staged bar setting, where they were both exposed to stressful and non-stressful situations.

And what they found was the stressful situations impacted women's drinking, and they tended to drink excessively more than men under a stressful situation. So it was actually a pretty unique study, and really, potentially, social stress causes women to drink more. And this was really brought to the forefront during the pandemic when we had disproportionate number of women who were stressed and isolated and at home. And we ended up seeing a lot of social media about women drinking.

And the data bears that out, that it was really impactful on women during the pandemic. And probably part of that was the data is showing is due to the fact that women bear the responsibilities for child rearing and child care and caring for others who are ill more than men. So moving to the next slide, the next category of risks was family, culture, and community risks.

And you can see them listed here. Family history, poor parent-child relationship, inadequate parent child communication about substance use, girls are-- one study found that girls are more vulnerable to beginning using substances if they have not had intervention by the parents discussions, lectures, if you will. They seem to be more impacted by-- when these things don't occur. They're also more impacted by changes in family dynamics, changes in socioeconomic scale, and frequent moving.

Another study found that teenage girls who don't participate in extracurricular activities are twice as likely to report smoking. Girls and young women are just more deeply impacted by these types of dynamic changes than boys and men. And I thought that was a very interesting finding but not surprising because, personally, I think that women and girls are more relation oriented. And so when their relationships are rocked, then their boat is rocked. So in that regard, I think under stress presents really more of a risk for women and girls as shown by the research.

So moving to some risks for older women, one of the things that we don't usually look at is what are the behavioral determinants of health. For successful aging, there are things that people choose to do, lifestyle choices, and some of those can really impact the risk factors for older women.

So if a woman chooses inactivity, poor diet, and they're overweight or obese, if they let acute or chronic diseases go, if they use tobacco, alcohol, or other drugs as coping mechanisms, and the fact that women take more medications and have the potential for more medication interactions, those are all sort of lifestyle choices.

And sometimes they have a direct choice, and sometimes they don't. And I think it's really important to remember that, that if you have a sudden financial failure in your life, then you don't really have control over your socioeconomic scale and the resources. But these things do impact women's tendency to use substances and put them at increased risk.

Also, psychosocially, mental health or mood disorders can impact older women-- social isolation and lack of support, any life changes such as bereavement, social connections, moving, if someone moves after the death of a loved one or loses their social support systems, even losses, such as health losses, loss of mobility or freedom or independence, to be able to get out and about.

Those kinds of things impact women on a psychosocial level. Coping skills, the inability to cope with age-related changes and the losses related to aging, unfulfilled lives, a loss of purpose, a sense of regret, those types of things fall under the psychosocial category.

Then there are genetic causes such as family history that can manifest in later age for women. And just a word about late onset, women are more likely to develop substance use disorders later in life. It's usually situational, in response to one or more negative life events, like the loss of a spouse or retirement, declining health, and shrinking social network. The losses really add up the older you get.

Women tend to have better health than early-onset users, and they do tend to have stronger societal connections later in life. But if you're losing those due to loss of your own or others' mobility or bereavement, then that tends to be a real issue for women.

On the positive side, women are more likely to believe in or respond to treatment. But we are concerned with prevention, and so if we want to prevent them, we have to prevent that late onset from happening. We have to really focus on how to help women to age in a more healthy way.

So moving on to protective factors for girls and women, some of what the research has found is that those that have good social skills and self-confidence and self-discipline and a self-- a sense of purpose about their futures are at reduced risk for substance use. These kind of characteristics serve as buffers against other risks and also against the negative influence of peers or a poor parent-child relationship. And that, again, is something that was found in the CASA Columbia study.

And to me, this speaks to, as preventionists, providing the opportunities, skills, and recognitions in the social development model, especially girls and young adolescents. Those who-- because things happen in multiple areas of lives-- family, school, community-- and there are a lot of ways that we can intervene there and protect girls and women.

So girls who report that they engage in more adaptive coping methods, who have the ability to talk to other people or people in their lives who are willing to talk, binge drink less than girls who use drinking as coping strategy. And this seems, to me, to relate to resiliency, which can, again, be enhanced and reinforced in multiple areas of life. So the protective factors can be really enhanced by prevention.

Also the role of religion and spirituality really helps reduce risk, particularly for girls. One study found the level of importance Black girls placed on religion and spirituality was significantly greater than that of white or Hispanic girls, and this is a great protective factor for girls and young women of color. Another study found that Black girls are more likely to report attending church than Black boys, and alcohol use among Black girls is actually lower among those who report more attending services.

And then, finally, another protective factor is ethnic and cultural influence. So a strong ethnic identity can protect minority youth from substance use. And this is really useful information, I think, for those in prevention, who are serving those minority populations.

Moving on to protective factors for older women, no surprises here, again, we're looking at behavioral determinants of healthy aging, choosing not to smoke, being physically active when you're capable of doing it, maintaining optimal body weight, healthy diet, and keeping alcohol consumption moderate. Those are all protective in the psychosocial domain.

The ability to cope and adapt to age-related changes in loss, and again, that kind of speaks to resiliency and supportive social network. And coping strategies are usually more problem focused rather than emotion focused and more adaptive versus being maladaptive, and those kinds of things are really protective for older women.

Women who have a good self-concept and who socialize and are active or civically engaged, and the spirituality for older women helps them to have a sense of purpose or meaning in life. And also generativity, and what we mean by generativity is providing for the next generation. And women, older women, usually express this by we think of it as the crone, the older woman nurturing, teaching, leading, promoting, the next generation, and making time-- making the older years much more productive and beneficial to their families and the social systems. And women who have that in their lives are really protected against things like substance misuse.

So what can we do with this information? Well, let's move on to some of the strategies. And I wanted to talk a little bit about context, the context of strategies. It's really important that we think of the many different contexts that girls and women can be provided with prevention interventions and the context of many subgroups that they belong to.

So some of the roles that women are in, they're caregivers and mothers and daughters. And they're pregnant. And they are social. And everywhere that they are, every role that they have, every setting that they are in needs prevention strategies, at least in gender-affirming and supportive and safe settings, and they also need to be developmentally appropriate.

And this is where the intersectionality I think really becomes important because there are so many overlapping intersections that provide prevention workers with an opportunity to intervene and help girls and women to navigate those many different roles and settings and developmental stages that they're going through, in light of their gender and their ethnicity and their cultures.

Moving on to a little bit more specific information on some strategies, I actually set aside some extra notes that I found, and I want to get to those. Thank you. So it's important, again, to remember that risks are cumulative and correlative. So when we cover all of the bases, all of those subgroups, all of those roles, and all of those settings that girls and women are in, even though we don't have a lot of research specific to them, a lot of research is being done.

We just need to consider what we do know about the unique risk and protective factors and fall back on our prevention theory and the principles of prevention so that we can reduce the risks and enhance the buffers that are specific to this population. So when you're working with a community, use what you know. Assess it. Consider the knowledge and information of the skills of the people that are in it and especially those you're working with or hoping to collaborate with.

Are there girls and young women and older women in your community? Of course, they are? Remember, though, the prevention saying this, that we all fall back on nothing about us without us. So be certain that they're represented in your planning efforts, from the very beginning all the way through your evaluation efforts.

And this may not seem like a strategy, but when you don't have specific programs that have been researched yet, which we really don't, rather than using a unisex model or programs based on men, start doing other things with your communities, looking for gaps in knowledge about this population, and

put your efforts into that kind of preparation for when the research and programs do become available.

I just wanted to use one example, for example, adverse experiences. If your work-- if you use adverse experiences as just one of the risk factors and you work with developers of a program to adapt it from a general prevention program to one that's specific to girls and young women or to older women, it's going to look much different. And you can begin at the organizational level.

What are your policies and procedures for trauma informed? How well versed are your staff in trauma-informed prevention? Do people know how to recognize the signs and symptoms? And there are some simple self-assessments for organizations and assessments for staff that you can do to prepare for the time when you can actually implement programming that's specific to girls.

If you just take the element of stress-- and we know from the research that stress, in and of itself, increases alcohol consumption in women, overall, not in all of them. But we have important information there. In a prevention setting, we need to-- for everybody to be on the same page from the top down and create atmospheres, where women and girls and older women feel safe.

Moving to some of the specific strategies, we have some examples of some programs that are already available, and they focus on, basically, misuse and risky behaviors and reduction of consequences of use and misuse. One of them is the Body Project, which is a dissonance intervention. It's a prevention program designed for high school and college girls, using four weekly one-hour sessions or two two-hour sessions. And it's done in a small group setting, five to 10 young women, and they have verbal, written, and behavioral exercises.

And through those, the program creates a dissonance in the participants by getting them to engage in a critique of the thin ideal so that they can see where that really is not syncing with what their experience is. And facilitators in the Body Project are usually those with master's level training, so you're looking at some pretty important skills. And it's not a standalone treatment by any means. But some of the elements might be very useful in addressing one of the issues that's really unique to women and girls, and that's body image.

Nurse-Family Partnerships is simply a nurse home-visiting program for first-time pregnant mothers that improves prenatal and child-rearing practices through the second birthday, so that's support during what can be a very stressful time for women. There is a Hip Teens program for high school girls

that's aimed at reducing pregnancy and sexually transmitted diseases, and I'm actually seeing some really great comments in the-- which I don't usually look at the chat, but some really great comments.

One is Girls on the Run, which is supposed to be an awesome program. Another one I can mentioned is the girls circle model. It's a structured support group for girls and for ages nine to 18 years, and it integrates relational therapy and resiliency practices and skills training and all of those good things that help make up a great prevention program.

And it's trying to intervene and counteract with the social forces, especially social media, that impede girls growth and promote emotionally safe settings and structures. So I think those are just very few examples, and in the resources, we have even more examples that you can access.

I think it's really important to, remember, use gender-specific prevention whenever possible. Make it gender sensitive, at the very least. You can look up prevention examples in the registry resources at the end, the publication that we put together that will be on the PTTC website. Add resources for trauma-informed carers, another good strategy, by looking at organizational structures, policies, procedures, employee and staff Training

Fall back on your prevention principles until a broader research base is Established. And consider contributing to the research base with great adaptations and working with program developers to adapt any existing programs for girls and women. And also consider beefing up your evaluation component so that you can show effectiveness of some of the new strategies that you may implement.

Next, I'd like to talk a little bit about mental health promotion strategies because we know that mental health promotion equals substance misuse prevention. So you'll want to have a few examples of those. One of those is called the MTSS, which is the misuse multi-tiered systems of support and evidence-based practices. It's a great place to look for health promotion.

Student assistance programs-- there's a good guide for school administrators put out by SAMHSA that can happen in the school setting, prosocial programs that address risk and protective and promoted factors for prevention. There are school-based depression and anxiety programs that you can access and strategies to promote connectedness. And I think hats off to our community coalitions across the country, who really do focus quite a bit on providing those opportunities and implementing a lot of these programs.

Moving on to selecting evidence-based approaches, the one thing that we really want to focus on is, whenever possible, we want to use what is shown by the research to be effective. So a little bit about the EBBP, which is evidence-based behavioral practice. Just to give you a brief definition, behavioral health practice is a multidisciplinary field that promotes optimal mental and physical health by maximizing biopsychosocial functioning.

Evidence-based behavioral practice entails making decisions about how to promote healthful behaviors by integrating the best available evidence with practitioner expertise and other resources and with characteristics, states, needs, values, and preferences of those who will be affected.

And you want to have it done in a way that's compatible with environmental and organizational context. And one of the places that you can look for some of the competencies that contributes to this would be a resource that I found called Addressing the Needs of Women and girls-- Developing Core Competencies for Mental Health and Substance Misuse Service Professionals. That's listed in our resources.

You're going to want to consult with the prevention competencies with the competencies of your profession that you're in, whether it's social work or counseling or other behavioral health, and also competencies that are specific to work with women and girls. And so that Core competencies Addressing the Needs of Women and Girls is a really great resource.

Moving on to slide 33, we're right to the point where we have mentioned a lot of potential collaborative partners. So what other partners can you think of that you might put in the chat box? Have we mentioned all of them?

I doubt it. I think probably there are many that we haven't thought of that you can tell us about, schools. I can see schools are one.

ERIN FICKER: Churches.

STEPHANIE ASTERIADIS PYLE: Churches, other faith-based communities, after school programs is really great, YMCA. And I wouldn't veer away from faith based because of the impact that it can have on women and girls of color and other ethnic minorities. Native clubs is a wonderful one.

I think one collaboration that I haven't seen quite yet-- well, yes, I did. Criminal justice. I think collaboration with law enforcement, you might not be able to implement a program quite as early as you might want to, but in setting up any prevention program with law enforcement for working with girls and women, it would be a best practice to assess for organizational and staff knowledge and skills about the population because, in any prevention program, just as in any treatment program, you want to build a safe environment for the population you're serving.

And so for girls and women who may have experienced trauma, it's quite easy to trigger them if you don't have a safe environment. So failing to establish that safe environment, even in a prevention setting, can really have consequences, where someone could get retraumatized unnecessarily and even more complicated problems.

So I think arranging for trainings and workshops and including girls and women in those planning processes, people in their intellectual mind tend to know that girls are different than boys, but sometimes they don't really key in on some of the biological differences, hormonal differences, and things that really impact girls and women, so just making sure that people are cognizant of that and have the proper training and organizational structure that will support those kinds of activities.

So music and dance therapists and Girl Scouts, wow, some really great collaborative partners. And this is where it needs to happen everywhere in order to have an impact. So--

ERIN FICKER: We want to move on to questions?

STEPHANIE ASTERIADIS PYLE: Want to move on to--

ERIN FICKER: Yeah.

STEPHANIE ASTERIADIS PYLE: Yes.

ERIN FICKER: So let's go ahead and open the floor to other questions, so there have been some questions that have come in the Q&A that we might want to see if we can answer. And if we can't, then we'll see if we can respond later after we have a chance to think about it a little bit more. But one of the questions we have is, what stressful situation-- you mentioned the bar

scenario or the bar. Were there specific stressful situations that women were exposed to in that study?

STEPHANIE ASTERIADIS PYLE: What was the question again?

ERIN FICKER: The question was, what stressful situations were women exposed to in the bar scenario that you mentioned earlier?

STEPHANIE ASTERIADIS PYLE: Actually, that did-- that wasn't in-- the specifics of that was not--

ERIN FICKER: OK.

STEPHANIE ASTERIADIS PYLE: --in what I read. But I can probably find out and would be glad to do that if you-- I'll make it-- I'll put it on my list.

ERIN FICKER: Wonderful. Thank you. And then another question, is there any research for girls who live/grow up in split households having higher risk of substance use?

STEPHANIE ASTERIADIS PYLE: Yes, there was one slide that I had talked about. When family dynamics change, as in the case of divorce or separations, what happens with girls and young women are that those sorts of dynamic changes impact them to a greater degree than boys and young men.

And I postulated that it might be because of the relationship orientation that most girls and women have and that one intervention during that time, just to add that element, would be to make sure that there is support for the family and help, mental health care, or behavioral health care for girls and women, particularly, but also boys and men because those-- they may be impacted in ways that we haven't identified yet, either. But that kind of support can be preventive in lessening the impact of something that's usually very impactful for them.

ERIN FICKER: Great. Let's move on to our next question, which is, has there been studies related to the impact of menopause and alcohol substance abuse, especially in women in recovery?

STEPHANIE ASTERIADIS PYLE: There may have been, but I didn't encounter any.

ERIN FICKER: Great. Yeah, so some of the stuff is like, these are really great questions and may not have been addressed yet or are harder to find in the research. So the next-- so we'll see if we find anything, but I think that's one that can be difficult to find that level of specificity in the research. So the next question is, I believe, social media and cell phones are hurting society. What can be done to address this problem?

STEPHANIE ASTERIADIS PYLE: Well, that's a very important question. And I just might say, as an aside, that because of the reasons that girls and women turn to substances, social media can be very impactful. It has a tendency to make people anonymous in some cases and make them believe that they can say anything.

And so the types of bullying and according to like body image can really contribute to what is already a very specific girls and women issue, the body image and eating disorders and that sort of thing. So I don't know what can be done. I would say keep them out of the hands of anyone under 18, but that's not possible.

ERIN FICKER: Yep, and I think one of the other things that we know is that social-emotional learning programs often help address how to cope with those, how to manage relationships in social media, and also how to view the world. The other piece of that is media education, so we see a lot of schools--

STEPHANIE ASTERIADIS PYLE: Yes.

ERIN FICKER: --doing that at younger ages, so not necessarily a specific prevention intervention but addressing something that may be a contributing factor to girls or young women turning to substances.

STEPHANIE ASTERIADIS PYLE: Yeah, that's perfect. Why didn't I think of that?

ERIN FICKER: [LAUGHS] I do a little work in the side on social-emotional learning, so that comes up for us a lot. So are you seeing a big difference in the data for students that are transgender, gender fluid, or non-binary? Or is it even being-- or is that even being widely collected at this point? And I can say it's not being widely collected at this point.

STEPHANIE ASTERIADIS PYLE: Not being widely what?

ERIN FICKER: Collected.

STEPHANIE ASTERIADIS PYLE: Collected.

ERIN FICKER: Data.

STEPHANIE ASTERIADIS PYLE: --well

ERIN FICKER: Yeah.

STEPHANIE ASTERIADIS PYLE: --there are studies, actually many studies being done, for all of the different aspects of human sexuality and substance use and misuse. It actually seems to be very quickly growing area of research, and so I am not an expert in that. That is, just for me, a small part of what I was looking at for this. But I would look to see some of that research being published and some of those questions being answered pretty soon.

ERIN FICKER: Well, I want to thank everyone for their questions. I know we didn't get to all of them, but we will try to address any other questions in a follow-up for any questions we weren't able to answer today because we didn't have the information or we didn't get the time to get to them.

But I want to thank everyone for their questions and making this a really dynamic experience. I also want to thank Stephanie for lending her incredible amount of knowledge on this topic and presenting us with so much great information. But I do want to move on at this point and think, just share with you a couple of quick things.

The first is that we really encourage you to come to and visit our Great Lakes Prevention Tech Transfer Facebook page. You can do that by clicking the Follow button and clicking Liked. While we were on this webinar today, there was a post put up with questions specific to this topic, so we would love for you to continue this conversation with us on our Facebook page.

Upcoming trainings include an Alcohol Policy series that's going to start September 20. Those are three webinars. We're also doing a Foundations

and Prevention Intensive Training course that'll start in October, and there will be a Substance Abuse Prevention Specialist Training, or a SAPST training, starting in November.

So we do have a link, and we can put that link in the chat for you. So you can register for any of those, or you can just go to our website and find those there. We would deeply appreciate it if you would take a moment to complete the post-training feedback survey.

You can-- there'll be a link in the chat for you. Hopefully, when you log out, you'll be redirected to that page. Or you can use your phone and just take a shot at that QR code, and hopefully, you will get directed to that. Thank you so much for spending a little bit of time to give us some feedback.

And we just want to thank you for being here. You made this a more dynamic and exciting training and a conversation. So thank you so much for being here, and we will post the recording and the materials to our website in the next week or roughly a week or so. So thank you so much, everyone.

STEPHANIE ASTERIADIS PYLE: Thank you.