Dr. John F. Kelly:
If you have an alcohol problem, an alcohol use disorder, if you suffer from alcohol addiction, the most likely outcome is recovery. That's the good news. It can take maybe three or four or five serious recovery attempts before achieving remission and recovery. 75% of people with an alcohol use disorder will achieve remission.

LuAnn Heinen:
That's Dr. John Kelly, the first endowed professor in addiction medicine at Harvard Medical School. He's also the Founder and Director of the Recovery Research Institute at Massachusetts General Hospital. A clinical psychologist, Dr. Kelly's clinical and research work is focused on addiction treatment and the recovery process, mechanisms of behavior change, and reducing the stigma and discrimination associated with addiction. We'll talk about alcohol use in America, how drinking alcohol may be harming our health and well-being even without dysfunction in our lives, and pathways to moderation or recovery.

I'm LuAnn Heinen, and this is the Business Group on Health podcast, conversations with experts on the most important health and well-being issues facing employers.

My guest is clinical psychologist, Dr. John Kelly, and we're talking about alcohol use disorder. It's estimated that one-third of U.S. adults meet current diagnostic criteria for mild, moderate, or severe alcohol use disorder during their lifetime.

Hi, Dr. Kelly, thank you so much for joining us on the podcast today.

Dr. John F. Kelly:
My pleasure. Great to be here with you.

LuAnn Heinen:
Let's start by talking about the impact of COVID on drinking and alcohol use in this country.

Dr. John F. Kelly:
COVID has been with us now for more than two and a half years. The way that it's affected the population and people drinking has been varied. It's been highly variable, actually, depending on different groups and different countries have different experiences with the impacts. So there are big, strong cultural influences, broadly speaking, on the way that COVID has affected alcohol use, as well as subcultural and subgroup effects. In some countries, the studies that have been done in those countries that have been reported, show very little increase in use overall. In certain countries you see some increase. In some countries you see a little bit more on average, but of course there are lots of subgroups within the general population that react differently. Young men and women, age and sex effects likelihood, and also how much you were drinking before COVID. Whether you tended to drink alone, versus whether you tended to drink socially in social groups. There's a number of factors which have influenced the impact of COVID on alcohol use with some groups showing no change. In fact, the majority of people showing no change, and those people tended to be the social drinkers. An interesting finding was on young people is that young people who did not have an alcohol use disorder tended to show reductions in alcohol use. Principally we think because the venues in which those young people drank were predominantly social venues outside of the home, and so when those were unavailable, alcohol use went down, people didn't get alcohol and bring it into the house and drink alone or with the family, rather the primary stimulus for alcohol use among those young people was in bars and restaurants outside of the home.

LuAnn Heinen:
Do you agree with the common perception, we were told that drinking socially is good or okay and drinking alone is bad?

Dr. John F. Kelly:
Well, drinking alone is not necessarily bad by itself. Of course, the toxicity is in the dose. It is an indicator, a marker, a red flag perhaps, if someone is drinking alone frequently. The question is, you know, why is that person drinking alone? Presumably they're drinking purely for the effect of alcohol. You know, alcohol is a drug that produces different effects, euphoria, disinhibition, anxiety reduction, sedation, sleep. People may be using it as a kind of a medication to help them escape psychologically, helps to reduce anxiety or other worries they may have. Alcohol is good at that. It also produces sedation and sleep temporarily, so it can put people to sleep if they have sleep problems, but of course it wakes them up as well, once the alcohol wears off a few hours later. When you look at it just, as you know, is drinking alone bad, not necessarily, but it is perhaps a risk marker.

LuAnn Heinen:
Let's talk about why people drink and when it becomes a problem.

Dr. John F. Kelly:
A lot of alcohol use is culturally driven. Culture relates to the laws. If you look in countries around the world where there's a strong cultural positive attitude towards alcohol use, like in Russia, for example, in Poland, in Eastern Europe, there's a strong tradition of alcohol use there, particularly concentrated alcohol in terms of distilled spirits, they have very high rates of casualties there in those countries. In other countries where alcohol is prescribed, Muslim countries is a prime example, then alcohol use is very low, of course. There's big, strong cultural factors which influence the degree of alcohol use in a given country, but if you take that, independent of that, people use for four main reasons, and this applies to really any substance, not just alcohol, but they principally use a drug like alcohol to feel good, to feel better, to do better, or because other people are doing it. Whereas we grow up in the Western world, because it is socially sanctioned, it's kind of celebrated alcohol use in many ways, it's used as part of cultural celebrations. As we grow up, we see other people using it. It's kind of a cultural expectation that you might at least try it at some point in your development. There's curiosity because we see other people, role modeling alcohol use, and we sometimes see the pleasurable aspects of that, of course there are a lot of downsides. That would be the reason other people are doing it, so we tend to follow suit as we grow up. Other reasons include to feel good - that's to just to escape, to get those positive effects from alcohol, or to remove negative effects that we're experiencing like stress, anxiety. Alcohol can dissolve those negative aspects temporarily. The other one is performance enhancements, so to do better. Sometimes we use alcohol because it helps us perform, do something that we're perhaps afraid to do when we're not under the influence of alcohol, so it can give us a little bit of extra courage that's pharmacologically induced that can enable us to do things that we wouldn't do otherwise. It can help us disinhibit us to do things and increase performance in that way. Interestingly, when you look down the road, those are the same four reasons why people stop using alcohol. It's interesting how the drug works in that initially we use it, and this doesn't happen to everybody of course, but people who are more vulnerable to alcohol use disorder, alcoholism, or alcohol addiction, they're the same four reasons why people stop - is to feel good, to feel better, to do better, and other people are not doing it.

LuAnn Heinen:
We know that over half of U.S. adults consume alcohol. How many people have a problem with alcohol, as you would define that?

Dr. John F. Kelly:
There's actual diagnostic criteria, of course, for alcohol use disorder. Individuals who may meet criteria for an alcohol use disorder may not feel they have a problem. It's interesting when you ask the question, what proportion of people have a problem? It might be defined by other people. Other people oftentimes may view a person as having an alcohol problem long before the person themselves realizes that what they're drinking is

causing problems, particularly for other people. Then we have the actual rate of alcohol use disorder in the United States, which is about 20 to 25 million people using the current diagnostic criteria, which is the DSM-5, that's the latest diagnostic set of criteria.

LuAnn Heinen:
I took a look at those criteria and it would seem to me that a lot of people might qualify for mild alcohol use disorder.

Dr. John F. Kelly:
Correct. A majority of people who would meet foreign alcohol use disorder would meet at the mild and moderate end of the spectrum. You can think of these problems or the amount of alcohol involvement and alcohol related impairment as being on a spectrum from mild to severe. I think culturally, by default, we tend to think of an alcoholic as somebody who continues to use despite harmful consequences. You can't stop. That's kind of our cultural definition and that's true of the severe end of the spectrum. Oftentimes people who have withdrawal symptoms, who have tremulousness, and who need to drink in the morning, who are drinking no matter what, drinking despite all kinds of problems, that will be at the severe end of the spectrum. But the vast majority of people are not at that end of the spectrum, that only about 10% of people who meet criteria for an alcohol use disorder are at the severe end. The other 90% are at the mild and moderate end.

The other thing to remember, as well, is that you don't have to meet criteria for an alcohol use disorder for alcohol to cause harm. This is because alcohol causes harm in three different ways. One is through addiction, alcohol use disorder and addiction. The two others are intoxication, of course, which we're all quite familiar with - somebody getting drunk, falling down the stairs, trashing their car, getting into fights. Intoxication can lead to this inhibition and aggression in some people that can cause all kinds of problems, accidents, and injuries. Then you have toxicity, which is the third pathway, which we don't often think that much about culturally, I think, or readily, which is the long-term effects of exposure to alcohol. Alcohol can cause liver disease. I think we are more familiar with that in terms of fatty liver cirrhosis, but it's also a level one carcinogen. A lot of people don't know that alcohol is in the same category as tobacco smoke and asbestos in terms of its cancer-causing ability. It increases risk of breast cancer in women, for example, at low doses, with a dose response curve, so the more you drink, the more likely you are to get cancer of the breast in women. Also, in men and women, cancer of the larynx, pharynx, and esophagus, as well as stomach, liver, and colon.

LuAnn Heinen:
Do you think that there's any safe level of alcohol use?

Dr. John F. Kelly:
There's not really a safe level, but there is low-risk levels and those low-risk levels are defined different for men and women because men and women have different capacities to metabolize alcohol, as well as having different amounts of body water in their body as a proportion of their body weight. In men, it tends to be more diluted at the same dose than it is for women where it tends to be more concentrated, but low-risk alcohol use is determined to be no more than one drink a day for a woman and no more than seven drinks a week, and no more than fourteen drinks a week for a man or no more than two drinks a day. That's considered low-risk alcohol use, not no risk, but low risk, that you can lower your chances of getting any adverse effects from alcohol use. Mostly those effects, of course, would be to do with toxicity-related effects of those three pathways. If you're drinking at those low levels, it doesn't eliminate risk. You may still have some risk related to the carcinogenic effects of alcohol, for example. It may interact with medications that you may be taking. This is another risk, particularly among elderly people that can cause interactions of unknown side effects, which can exacerbate the effects of those medications and lead to injuries and accidents, for example.

LuAnn Heinen:
We know that many people are able to adhere to those guidelines that you just went through and that you hear from your primary care physician about, you know, moderate or low-risk levels of drinking. For those who

are not able to sustain that practice, who once they start, it's hard to stop, is it possible to achieve moderation or do you think at that point, abstinence is the only path?

Dr. John F. Kelly:
Abstinence is the most stable path to change, but it's not the only one. Many people are able to, if they're showing signs of heavier drinking that is causing problems, they're able to cut down to lower levels that are less harmful and less problematic for them and others. One of the questions is, you know, can they keep it at the low level successfully over time for months and years, if they've shown signs of heavier drinking. It is possible. It's difficult to do, but then again, it's also difficult to abstain completely. Kind of the best marker for that is severity of the level of alcohol involvement and alcohol related impairment previously. If you have been more severely alcohol involved and impaired, that is to say you kind of meet criteria at the moderate severe end of the spectrum for an alcohol use disorder, your chances of being able to turn around and cut down and reduce use successfully in functioning well are lower. You are more likely to be successful and stable by abstaining. If you're at the lower end of the spectrum, at a mild to moderate end of the spectrum, the chances are higher that you'll be able to cut back and use at a lower, less harmful level.

LuAnn Heinen:
Let's talk a little bit about your work on what leads to remission and recovery, what works, what people need to reduce their alcohol consumption or quit altogether, and also weave in the fact that you were the lead author of the 2020 Cochrane Review of evidence on the treatment of alcohol use disorder, and that was a major piece of work as all the Cochrane Reviews are - 27 studies, more than 10,000 people - and showed that AA and peer support programs like AA performed as well or better as other usual treatments.

Dr. John F. Kelly:
Yes, so many different pathways to recovery. That's the good news. It's a matter of just for people to find one that works for them. We know that treatment and AA and medications are all helpful, they are all effective for some people, but not for everybody, as a matter of finding one that works for you. We also know that for people on the more mild end of the spectrum of alcoholism or alcohol use disorder, many people are able to stop or cut down successfully and get into remission from the disorder without seeking any kind of outside help. Those individuals who are able to do that tend to be on the milder end of the spectrum, so their life is not so impaired, not so wrecked by alcohol, that they're able to kind of shift and moderate and change their life to be able to support remission. People at the severe end of alcohol involvement and alcohol impairment, those who are more severely addicted, tend to need more support. We have three FDA approved medications for alcohol use disorder, which can be very helpful, again, not for everybody, but for some people that can help them cut down and stop alcohol use. Usually those are used in combination with other kinds of supports, like psychosocial treatments, like cognitive behavioral therapies, relapse prevention therapies, which are available in most treatment facilities. As you mentioned also, peer support programs like Alcoholics Anonymous, SMART Recovery, LifeRing Secular Recovery, Women for Sobriety, there are different flavors of these mutual aid societies and support networks. The advantage of those is that they're freely available, they're highly accessible and flexible, and they're well suited to supporting remission in the communities in which people live. That's the good news. We have a lot of these resources around, particularly AA for alcohol use disorder, and as you pointed out earlier, we now have strong evidence that AA works as well or better for less money and other interventions. So it's a very useful, helpful public health standpoint, just given the burden of disease of alcohol related illnesses, that it can support recovery over time.

LuAnn Heinen:
I think you were quoted as saying, to your point about no cost or low cost, that AA and similar programs are the closest thing we have in public health to a free lunch.

Dr. John F. Kelly:
That's right. Yes, I like that saying, I didn’t make it up. Yes, because it's true. We don't get many free lunches in society, in any sense, from a public health or otherwise, but here we have a free ubiquitous indigenous recovery support service, and we have a price tag, of course, economic burden associated with alcohol alone

of $250 billion a year. That's the price tag we're all paying for alcohol use, heavy alcohol use, which affects people in different ways.

LuAnn Heinen:
That's a lot of collateral damage. Yes, a lot of cost.

Dr. John F. Kelly:
A lot of damage, yes, and those costs are spread across health care, of course, but criminal justice also, as well as loss productivity, people getting sick and not going to work. There is a huge price tag. When you have a freebie in the community that's highly ubiquitous and effective, that is good news and we need more things like it.

LuAnn Heinen:
I'm speaking with Dr. John Kelly, a clinical psychologist specializing in the treatment of alcohol and other drug addiction. He was the lead author of the 2020 Cochrane Review that found alcoholics anonymous and similar 12-step programs are as effective at achieving abstinence as other common and higher cost clinical treatments. We'll continue our show in just a minute.

LuAnn Heinen:
How can workplaces do more to support people in recovery? I have been thinking about how happy hours are at least as ubiquitous as support programs. We do know that quite a few companies have employee resource groups or other kinds of peer support for people in recovery. Salesforce was just in *Employee Benefit News* that they have something called Soberforce that they've gotten started to support employees. Beyond that, what else?

Dr. John F. Kelly:
Yes, I think there's some general principles that employers can utilize to help their employees who have an alcohol problem. These have been around for a long time. We've had employee assistance program so-called, which were principally designed to help people initially with an alcohol use disorder, alcoholism in the past. Again, these are programs which are designed to provide treatment and recovery specific support through their employer, that their employer understands, they're educated about the nature of these disorders and conditions, how they can affect people, what's needed for that person to get healthy again, and to get into remission. So being able to provide compassionate support, understanding, but also provide accountability that can be very helpful for people in recovery, to provide flexibility in terms of their work schedule, to be able to attend the kinds of services that they need to be able to achieve and sustain remission across time. This, of course, is in the interest of the employer, especially if they've invested time in training that person and they're a part of the infrastructure of that employer.

LuAnn Heinen:
Pulling the lens back and looking big picture, what is the current trajectory in the U.S.? We've got a long history with alcohol, from prohibition and celebration and then back and forth. Most alcohol is not FDA regulated, as I

understand it, even though you've referred to it as kind of a pharmacological agent, it's regulated by the Bureau of Alcohol, Tobacco, and Firearms. Is it regulation? Is it more public education? What would it take to significantly reduce the negative impacts of alcohol in the U.S. that you talked about in terms of cost and health?

Dr. John F. Kelly:
Part of the challenge has been proper public health policy related messaging and information. That's part of it. There's a disinclination, for example, to have labeling, accurate labeling, on alcohol containers, the way that we do for tobacco.

LuAnn Heinen:
For accurate labeling, you don't mean a food label as the FDA would require. You're talking more about a safety label.

Dr. John F. Kelly:
Yes, exactly. Now there are some labels for pregnant mothers, for example. We know that alcohol can damage the fetus and produce fetal alcohol spectrum disorder in born children when the mother has been exposed to alcohol. But there's no labeling, for example, that alcohol can cause cancer, that we can increase the risk of cancer. The other thing is the alcohol is responsible for most addiction cases in the United States and in most middle and high-income countries around the world. When I was in London recently, I picked up a packet of headache pills. It had some coding and it was over the counter. You could get it over the counter in England, but it says right on the front of the box, “warning, this may cause addiction,” but it's interesting, isn't it that 75% of addiction cases in the United States are caused by alcohol, but there's no warning on alcohol containers that this may cause addiction. Again, culturally, we don't like to think of alcohol as an addictive drug and that many of us are using that drug. I think because we don't want to think about it as a drug, we'd rather think about it as there's alcohol, then there's drugs. The way that we talk about it and think about it, influences our cultural response, doesn't it? When we think about it as not a drug, which of course it is, because it's so enjoyable, people enjoy it, as you said, the happy hour, what's better than the happy hour, except that for some people there are many subsequent unhappy hours for them or their loved ones because of the happy hours. So not for everybody, but it can cause a lot of heartache and misery in that person and in other people. It can cause addiction. It can cause cancer. It can cause intoxication-related accidents and injuries. Of course, we see this all the time, but we don't like to think about it like that and this is part of the problem. This changed, of course, with tobacco. I can see it changing in the next 50 years as we start to understand more about the effects of alcohol so that the public can be better informed, more accurately informed, about the risks they are taking when they consume that product. Just the same as they would hopefully be informed if there were health risks associated with any other product that they put in their body.

LuAnn Heinen:
Yes, absolutely. We didn't talk at all about binge drinking and my impression is that that starts maybe in college, people go away from home, they're barely at drinking age or not quite of drinking age. Can you define binge drinking and is that something that people grow out of and stops or is that a phenomenon that we're still seeing in older adults?

Dr. John F. Kelly:
Well, binge drinking is heavy use in a short period. It's formally defined as five drinks within a two-hour period for a man, four drinks within a two-hour period for a woman. That high level of increase in blood alcohol concentration produces intoxication in most people. That leads to disinhibition. It can lead to psychological impairment, of course, which can lead to injuries and accidents, as well as domestic violence and other kinds of violence like that.

LuAnn Heinen:
How big a problem is that?

Dr. John F. Kelly:
Again, it's really where you look in the population. If you took a broad stroke look, you'd see among young people, so between the ages of 17 and 30, that's where you see the bulk of the heavy drinking. It tends to go down after that developmental period in most middle and high-income countries. You see that decrease age from a developmental perspective. This is probably because when you are younger, you've got more free time, there's more cultural expectations, social facilitation to engage in heavier alcohol use. Also, younger people are more robust, slightly more robust to the effects. They can bounce back. They are more resilient. They can bounce back quicker from the negative effects of alcohol. As you get older, that starts to change. Also, there are different responsibilities which come on board, typically developmentally as people get in a relationship, get to work or they get serious about work, there's kids coming along potentially. So, there's all these other challenges and demands on people's time which reduce the occasion, the freedom license for alcohol use. That's what you generally see. For some people, of course, who become addicted, that has a very different trajectory.

LuAnn Heinen:
Not too long ago, you won a Lifetime Achievement Award from the National Council for Mental Wellbeing. Congratulations on that. Lifetime Achievement Award always kind of creates that feeling of wait, I'm not done, there's more. What more is there that you'd like to accomplish?

Dr. John F. Kelly:
Thank you. Well, there's so much to learn. There’s so many people working so hard to make a difference in our understanding of alcohol, other drug use as well, of course, and what we can do to better help people who suffer from these disorders and their families. You know, one of the things I think that's very important is what can we do earlier to prevent these cases and the disaster that can happen for people, including loss of life, because this is the third leading cause of preventable death in the United States, is alcohol. What can we do earlier in people's lives to help prevent or educate younger people about the harms, the hazards associated with alcohol and its addictive potential. For cases, for people who do meet criteria for alcohol use disorder early, to be able to intervene earlier, to have those conversations early and often to help shorten the course of alcoholism and alcohol use disorder.

We do know, for example, that in studies that have looked at this, that the earlier you begin the conversation around the harms and hazards of alcohol use for people who are showing signs and symptoms of an alcohol use disorder, the shorter of the time to remission. Just like other kinds of illnesses and disorders, alcohol use disorder responds to early intervention. You might not see the effects right away. You might not see any change right away in terms of a young person's alcohol use over six months or even six years, but what you do see is that for those people who get those conversations, it's like planting seeds, we're planting seeds, which come to fruition earlier in terms of helping those people get into remission relative to those same individuals who do not get those conversations. I think we need kind of a longer-term view of the impact of beginning these interventions and conversations earlier, particularly for young people, if we're serious about really putting a dent in the incidents and prevalence of these disorders in the population and the harms, the hazards, and the price tag that we're all paying financially.

LuAnn Heinen:
I'm reminded of like the driver's ed that I went through many years ago. I don't think they do this anymore, but there was a lot of emphasis on all the bad that can happen when you get behind the wheel, and a scary movie and things like that. But there could be a more progressive, primary prevention strategy for teenagers.

Dr. John F. Kelly:
We want to be realistic. I don't think we need eggs and frying pans to scare people. I think kids are pretty savvy. Sometimes we like to use scare tactics with the idea that this could be you. That rarely works. We need to be smart about what does work and identifying what are the factors and elements which really do help people make healthier choices in their life so that they understand the ramifications. One of them has been particularly, you mentioned earlier about the trajectories of harm in COVID, but over the last 10 years, we've

seen substantial increases, independent of COVID, in liver disease and alcohol use disorder, particularly among women and women are really caught up to men, sadly in terms of the harms done by alcohol and shown a much bigger increase in relative harms among women. I think they've gotten the message somehow that wine may be good for them, and so they've overdone it and started to incur all kinds of harms and consequences as a result. That's what we've seen when we look internationally as well.

LuAnn Heinen:
Definitely, I think, wine and women is a cultural thing. You see it on t-shirts. It was big on some TV shows, *Mom's Night Out*. Yes, lots of that.

Dr. John F. Kelly:
Yes, again, all of these things, alcohol, other drugs can be fun. They are pleasurable. This is why people use them, of course, because it produces this euphoria and anxiety reduction and disinhibition, the kinds of things the human brain likes. Of course, these things can be fun in moderation, in low levels, but again, we have to be careful because the toxicity is in the dose. If you have too much, there is going to be harm incurred. Everybody should be informed about the nature of the harm and then they can make up their own mind about what they were going to do, but they have to bear the consequences of it.

LuAnn Heinen:
As our final question, if there's a really important takeaway that you'd like the audience to have from this conversation, what would that be?

Dr. John F. Kelly:
Probably the most important thing to remember is if you have an alcohol problem, an alcohol use disorder, if you suffer from alcohol addiction, the most likely outcome is recovery. That's the good news. It can take maybe three or four or five serious recovery attempts before achieving remission and recovery. But 75% of people with an alcohol use disorder will achieve remission. I don't want to discount the suffering and the premature deaths, which occur a hundred thousand or more per year in the United States, from alcohol, but most people will recover from an alcohol use disorder, 75%. So that's the good news. It can take four or five treatment episodes or mutual help episodes before people achieve that remission, but remission is the most likely outcome. Just keep trying, keep hanging in there, keep moving forwards, you'll eventually achieve remission. That's going to be the most likely outcome.

LuAnn Heinen:
I've been speaking with Dr. John Kelly, clinical psychologist and the first endowed professor in addiction medicine at Harvard Medical School. For more information on Dr. Kelly's work, go to https://www.recoveryanswers.org/. You can sign up online for a free monthly recovery bulletin. The site also has a feature called Addictionary®, a play on the word addiction. It's a dictionary for words related to addiction and recovery with stigma alert warnings.

I'm LuAnn Heinen. This podcast is produced by Business Group on Health with Connected Social Media. If you enjoyed this conversation, please share it with a friend or colleague.