Key:

J = Jason Cantone

D = Dr.DuPont

J: Thank you for joining us. Can you please explain a little about your background and your involvement with the criminal justice system?

D: I went to Harvard Medical School and did my residency in Harvard Medical School. Then I went to NIH. Then at 32, I had to get my first job. And the question was, where would I go? What would I do? Well, one day a week in my residency, I worked in a state prison in Massachusetts, the Norfolk Prison. And I was utterly fascinated by the people in the prison, what their stories were, what was going on with them -- the whole environment there, and those people were the center of my attention. And I thought, how can I, with my medical training, do something to help these people? That was my question. I didn't really have a way to do that, but I knew I needed to work with them.

So, I went full-time to work with the District of Columbia, Department of Corrections, in Washington, D.C. In that context, I took urine bottles to the D.C. jail, and checked on drug use. And I discovered that 44 percent tested positive for heroin, and that the crime rate that would preoccupy the country at that time was being driven by heroin use. And that was published in the New England Journal of Medicine; it was a very big deal for the country to identify that connection there. And that led to my having to answer the question, what do you do about it? And that got me involved drug treatment, and 51 years later, I'm here to talk to you.

But I was into it because the criminal justice system was helpful. I think that's really important. I didn't go there because they were punishing people, I would go there because that system was there to help people. And that has been my commitment and my observations, my learning, ever since.

J: Why is it important to address not only opioid use, but also other substances?

D: The opioid problem is more diverse than just opioids. It's drug use generally, and opioids are part of that picture. And the overdose deaths are not just because of the opioid use, but because of the other drugs as well. So, it's really important to understand who opioid addicts are in this country, and there are people who are poly drug users; using lots of other drugs as well.

J: You've stated that while human drug use is not new, the current drug epidemic is. How does the use of prescription drugs differ from when you were the first director of NIDA?

D: Well, the modern drug epidemic began in the late sixties. Prior to that, there has never been in the world a situation where a whole population was using lots of different drugs. We've had epidemics with one drug or another in populations, and in segments of the population. But that's what really started the modern drug epidemic, was in the late 1960s. And why did that start then? Because that's when the baby boom entered late adolescence, when they were most vulnerable to drugs. And that changed society. There were all kinds of things that happened in the late 1960s.

Now if you think about what's happened after that time, it has changed very dramatically also. Heroin is not the headline anymore. Opioids are, and prescription opioids, in particular, and synthetic opioids also, like fentanyl. But heroin is still part of it, and it's very striking that that is still there.

J: What is the current role of heroin in the opioid epidemic?

D: Well, first of all, go back. Heroin was created by the Bayer Company, at the same time they created aspirin. That's why the names are so similar. And they were introduced in 1898, as both over-the-counter, and it became an international epidemic that changed the course of history of drug use, because of that drug. Heroin is still a very important part of the drug problem, and that's surprising to many people, that it's this endurance of it as a central factor in it. It comes from the opium poppy. And what the Bayer Company did was add two acetyl groups to the morphine that's in there; it's a very tiny change they made. But it changed the world.

J: How has the profile of the typical addict changed over time?

D: Well, you know, this is the third time we've had an opioid epidemic in this country, not the first. The first one was at the end of the nineteenth century and the beginning of the twentieth century, and that's when opioids, including heroin, were over-the-counter preparations. And the typical addict then, in that epidemic, was a 40-year-old housewife in Kentucky. That was the center of the addiction problem in that era. Then in the late sixties and early seventies, the typical addict became an inner-city, minority male, generally involved with the criminal justice system. And that was an entirely different

demography related to the fact that heroin was then illegal, which it had not been in the early one. And today, the typical addict of opioids, including heroin, is a man in West Virginia, and again, typically in the thirties or so. It's surprising to a lot of people that it's not just teenagers that are involved in this.

J: It's important to define the terms we're using. Can you please describe what is meant by "addiction" and by "substance use?"

D: The word addict, or addiction, is not used formally anymore, but it is informally used, and it is a very graphic and powerful term. The term of art now is "substance use disorder." And that defines it as a disease, and it is characterized by eleven different elements that identify distress that drug use causes, or problems caused in a person's life. But the term of art now is "substance use disorder." "Addiction is a term that is of long duration, and a much broader focus. And it's interesting that the people themselves in recovery programs talk about themselves as "drug addicts," and use the term "addiction" today, as has been used all along about it. But I have a sort of simple way of thinking about what addiction is, and that is two factors; one factor is dishonesty. You virtually can't be an honest addict. You've got to be a liar to be an addict. And that's not pharmacology. That's because people who are addicted have lost control of their drug use, and it's causing serious consequences, so the people around them want them to stop. And the only way they can hold on to the drug and hold on to those people is to lie to the people, whether that's the doctor or the family, or anybody else. Dishonesty is factor one.

And factor two is continued use, despite serious problems. Most of the time, when people have serious problems, they will change their behavior. But addicts, addicted people, do not. They keep doing things, even in the face of those things. And I have had people talk about benzodiazepines, for example, thinking about they're addicted to their Xanax. And I say, well, it depends on what's happening to you -- and I use my example about addiction, and say, "Look at my glasses. If you took the glasses away, I would show glasses-seeking behavior. I would try to have that, and I do it every day. I get up in the morning and put on my glasses, last thing I do at night -- am I addicted to my glasses? Well, you don't have dishonesty, and you don't have use despite problems. You don't have addiction.

J: Are there socio-cultural factors relevant to the use of opioids?

D: Yes, there are, but it's not -- opioid use is not limited to any area. There are patterns of increased and decreased use. But among physicians, for example, it would be an absolute difference from thinking about the typical opioid pattern. Opioids are a major cause of addiction in physicians. So really, everybody is vulnerable to it. But it's basically, who's willing to use the drugs? And that tends to be people who are more impulsive. Oftentimes younger people are where it gets started, in teenage years, particularly is where the drug use starts. But the vulnerability -- and it's also familial, so that some people are more vulnerable than other people. But the vulnerability itself is universal. It's in the mammalian brain, and you can see that by animal studies. It doesn't have to do with what color they are or how old they are -- all the animals will become addicted to the opioids, and show the drug-seeking behavior, and the other signs of addictive behavior. So yes, there are concentrations in various places. Mostly that has to do with willingness to and access to the drug.

J: What types of interventions and treatment options are available?

D: First of all, all the treatments for any substance use disorder are available to people with opioid use disorder. But there are a class of treatments that are unique to the opioid use disorders, and those are the medication -assisted treatment, or MAT. Those are particularly three drugs; naltrexone, or a patented drug called Vivitrol, which is an opioid antagonist. It drives the opioid off of the receptor sites. And when somebody uses the drugs, after they've taken it, they don't have an effect from it. So that's naltrexone. And then there's methadone, which is a synthetic opioid, which is used in methadone treatment as an opioid substitute. And people will say, well, that's just substituting one drug for another, and it is not just that, because it's taken orally once a day, and it very much promotes recovery, and I'm a very big supporter of methadone treatment. And then the newer drug used to treat opioid use disorders is buprenorphine, which is a partial agonist. It has some features of an antagonist like naltrexone, and some features of an agonist like methadone. And it has lower potential for overdose tests than methadone, and it doesn't have to be prescribed in a program. But a doctor can prescribe that. And the growth of MAT has mostly been in the buprenorphine area. But it's important to realize that there are three forms of medication-assisted treatment, and they are a very big advance in the treatment of opioid use disorders.

The secret weapon in the war on drugs is recovery support. And that is Alcoholics Anonymous and Narcotics Anonymous, and the other 12-step fellowships, and some

other programs that are spun off from those. And I notice that when you talk about treatment, you're talking about somebody getting paid; somebody's got a job, and there's a salary and a budget -- one of the things that's very interesting about AA and NA is, nobody is getting paid. And my patients, when I see them, and they talk about this, I say, notice the fact that all of those people that are at those meetings, why are they there? What are they all about? The only reason they're there is for their own sobriety and to help other people. And that is, I think, one of the great contributions of the United States to world culture. Started in 1935, in Akron, Ohio. And it's accessible to everybody. So, one of the things I tell people, including judges, is go to some meetings. Around you, you will find meetings, lots and lots of meetings, and go there and talk to the people. I think that's the best way to actually learn about this problem, and it's also very important to people and getting into recovery.

J: You've stated that cooperation between the criminal justice system, treatment providers and prevention programs is necessary. Why is this important? And how can further cooperation be achieved?

D: The criminal justice system is right now under attack in drug policy as the enemy of the drug-addicted person. And people will say, we want to get away from prisons, and we want to have treatment. So, we've got this sort of battle going on. Do you believe in prison, or do you believe in treatment, kind of thing. And that is a very destructive way to think about it. The criminal justice system is a major pathway to recovery. It's a friend of a drug-addicted person, because it gets the person to deal with the problem, and it gives some leverage to get them into treatment and to keep them in treatment, long enough for that hijacked brain to heal. And so, the criminal justice system needs to be integrated in a public health approach to the drug problem. It is not an enemy; it is a friend. It is an ally, in terms of dealing with the problem, because denial of the problem is at the heart of the addiction problem. And it is a major way that people in the United States find their way to treatment; 28 percent of the people in treatment in the country are from the criminal justice system. It's an avenue for recovery because of that leverage, and because of the crisis that the criminal justice system creates in a person's life. And what my goal is to be whatever I can do to support that connection and make it work better for more people.

J: What else do judges need to know about the opioid epidemic?

D: I think the main thing to understand is how big it is. It's remarkable. The leading cause of death in the United States for people 50 and younger today is drug overdose. That is pretty stunning. For the last three years, the life expectancy of Americans has gone down. This is the first time that's happened since the 1918 flu epidemic -- that is also very striking to think about that. And another thing that's changing right now that judges need to think about is the scale of the health problems. And what's happening in this country right now that is dramatic is, we're legalizing a third drug, we're adding a third drug to alcohol and tobacco -- marijuana, or THC. And that is consequential for our country and for substance use disorder.

J: Is there anything else our viewers should know?

D: I like drug addicts. I care for these people. I treat them with respect. I honor them. But the addiction, the behavior they have with the drug us is destroying them. It's destroying their characters; it's destroying their lives. I see what you're doing, and what I'm doing, as emancipation from chemical slavery. And it is really important to see beyond the person who you see before you right now as using drugs, to the potential for that person in recovery. And that's what I'm excited about. And I want to think about these as good people with a bad problem, and that there is a pathway to get out. Treatment is part of that, but it's not just treatment. And the criminal justice system can make a huge difference for millions of people when it comes to drugs. And they're better off, their families are better off, and their communities are better off. And you are a major agent to make that change.