

## Is There an Antidote for the Opioid Epidemic? Seeking a Cure for the Worst Drug Crisis in American History

Panelists: Amy Gutmann, Hon. Joseph R. Biden Jr., Hon. John Ellis "Jeb" Bush Sr., Hon. James F. Kenney, Hon. Bertha Madras, Dr. Jeanmarie Perrone

Amy Gutmann (moderator) - More than 130 people in the United States will die of an opioid overdose today. Americans now face greater lifetime odds of dying of an opioid overdose than from a car crash. The global scourge cuts across all communities and effects every corner of society. No family is immune. No single culprit is to blame. We know of no clear and simple fix. We do however, have good reason to hope as well as we have great leaders in myriad fields and multiple sectors working to better understand and meet this crisis. This crisis must be met. Today's program is very special because our panelists bring an important mix of insight and expertise to this incredibly complex epidemic. So please join me in welcoming onstage, Bertha Madras, Jeb Bush, Jim Kenney, Jeanmarie Perrone and Joe Biden. So there's no better place than Penn for this forum because we have long played a role in this essential effort. One of our panelists recalls that back in 2005, the United States faced a fentanyl outbreak. Philadelphia was one of the major cities effected. When the time urgently came to convene the very first national forum on fentanyl, Bertha's first phone call was to Penn. And as a result, in 2006 a multi-disciplinary gathering of clinicians and researchers, students, lawyers and law enforcement officials all met here to share knowledge and plan action. That Penn gathering was a landmark meeting and it brought national attention to the rising threat of fentanyl in communities nationwide. So now, in 2019, Penn gathers anew to confront the opioid epidemic. We're so grateful to the special friends of Penn who made this program possible. We honor the memory of Penn's former trustee leader, David Silfen. Together with his wife, Lyn they generously endowed the David and Lyn Silfen University Forum. Let us all thank them with a big round of applause. We're also grateful to the five remarkable expert panelists with us here today. Let's meet them now. Joe Biden served as the 47th Vice President to the United States after 36 years as a U.S. Senator from Delaware. One of the outstanding statesmen of our time, he is the recipient of our nation's highest civilian honor, the Presidential Medal of Freedom with Distinction. Vice President Biden is also Penn's own, Benjamin Franklin Presidential Practice Professor. He leads the Penn Biden Center for Diplomacy and Global Engagement in our nation's capital. Vice President Biden and his family, as I think you all know have long and close affiliations with Penn. Thank you for being with us Vice President. Former Florida Governor, Jeb Bush served two terms leading our nation's third most populous state. Governor Bush has been celebrated for his success in reforming education and helping to close the achievement gap between rich and poor. He became a leading voice in the national discussion about immigration reform and political consensus. Governor Bush also has a very special connection, right here to us in Philadelphia as formerly serving as Chairman of the National Constitution Center. And of course, he has a special connection to the Penn community as our second esteemed Presidential Practice Professor. Thank you so much for being with us, Governor Bush. The honorable Jim Kenney is the 99th Mayor of Philadelphia, a native son of our city and a lifelong

public servant devoted to the welfare of Philadelphia's people. Mayor Kenney's administration is committed to expanding access to education, investing in the city's commercial growth and pursuing greater health, happiness and prosperity for all Philadelphians. Foremost among these priorities to the cities is the cities response to the opioid epidemic including the Philadelphia resilience project which is mobilized, community organizations, residents and thirty-five city departments to combat the crisis. At Penn, we are enormously proud that Mayor Kenney was for years, a lecturer at our Fels Institute for Government. Mayor Kenney, we love your relationship to Penn and we're proud of your leadership of our city. Welcome. The honorable Bertha Madras is Professor of Psychobiology at Harvard Medical School. She served as Deputy Director for Demand Reduction in the White House Office of National Drug Control Policy. A presidential appointment confirmed by the U.S. Senate with unanimous consent. A prolific researcher and author, Bertha focuses on neurobiology, brain imaging and medications development. In 2017, she was appointed to the President's commission on combating drug addiction and the opioid crisis. And was asked by the chair to shepherd and write the final commission report. She currently is a member of the National Academy of Medicine Collaborative on the opioid crisis. Thank you so much for being with us. Doctor Jeanmarie Perrone is a professor in Penn Medicine's department of Emergency Medicine and she directs the addiction medicine initiatives. She has led many investigations into opioid stewardship and has advocated the state and national level for emergency treatment for opioid use disorder. She has served Philadelphia's Mayor's task force. She served on the Pennsylvania state opioid task force. The national quality forum and advisory committees with the CDC and FDA to address opioid over prescribing. She is triple certified in the fields of emergency medicine, medical toxicology and addiction medicine. And she was inducted into the Penn Academy of Master Clinicians in 2015. Thank you so much for being here, Jeanmarie. So as you can see, we have an exceptional group of panelists to share their insights with us. So let's get started. Mr. Vice President.

Joe Biden - Start with the least informed.

Amy Gutmann - No, you wrote and I think I quote you that "America's opioid crisis is tearing the heart out of this country". In your opinion, how did we get to this place? What's happened?

Joe Biden - We have some real experts on this panel but I have a, look. More people die in a yearly basis in this opioid crisis than died in the entire war in Vietnam. To put it in perspective, this is not a minor thing. And I think, we can't look at this crisis, but I'd yield to the two docs on the panel. Without looking at the abandon with which the drug companies advertise pain killers without requisite, in my view, the requisite warnings of what it's about. You know, and quite frankly, docs who I believe willy-nilly overly prescribe. I wrote this statistic down. 282 million prescriptions were written at the peak in 2012. 215 million prescriptions for pain killers in 2016. That's enough prescriptions written to keep the entire American population medicated around the clock for three weeks. Now look, we desperately need people with chronic pain to have this access but you cannot convince me, anywhere near that is the case. And the millions and millions of dollars, hundreds of millions of dollars, these drug companies spend on advertising.

Amy Gutmann - Absolutely.

Joe Biden - Is just, and deductible as a business expense. I'd take away the deduction if I could. The fact is, as the docs can tell you, and the mayor and the governor, that a lot of people can get addicted within five days of the use of Percocet and these painkillers, five days. And I think, doc it may not be the case but I remember reading something where you said that close to 80% of the people who have a wisdom tooth out are given seven to ten days worth of pain killers.

Amy Gutmann - So, that's, go ahead--

Joe Biden - So, I think you have to look at two things. One, we got here, I believe in part because of the greed of the drug companies and their responsibility of them. And, quite frankly, the lack of sufficient responsibility in the part of the medical profession. I think there's a lot of things, I think that we can do to change it. I'm not gonna talk anymore but there's a lot of things we can do to impact on that without in any way violating any of the elements of the medical profession and without punishing drug companies unnecessarily. But you can't convince me, look there's one town in West Virginia, I wrote this down too. One town in West Virginia, between 2006 and 2016, drug companies shipped 21 million prescriptions of painkillers to two pharmacies in a town of 2,900 people. That's criminal on my view. I can say more but I won't. There's a lot of people to talk.

Amy Gutmann - Yeah, I will welcome anyone to jump in. I'm gonna ask questions to each of you but feel free. But I'm gonna pass the baton to Dr. Perrone because you're on the front lines of this epidemic. I'd like you to tell us, and I'd really be interested, this effects all of us and make no mistake about it there's nobody here who doesn't know somebody who's been effected by this crisis. I'd like to know from your perspective because you're on the front lines. What does this look like from the perspective of an emergency room clinician who specializes in understanding and treating this problem.

Jeanmarie Perrone - Yeah, so I feel like I'm the only physician, I think on the panel. So, I wanna half defend and half support what you're saying. Because I think, absolutely the drug companies perpetuated this concept that opioids were safe when they absolutely were not. The FDA propagated that even further and supported prescribing. The joint commission, all these federal regulatory bodies fell into the very convincing campaign that the drug companies came across with saying that these drugs were safe and that we really had a responsibility as physicians to not let anyone suffer at all. And that we must make pain, that pain is perceived as a score of ten out of ten, we need to get it down to zero. And so that created this cycle. When I trained, in the early 90's, we didn't prescribe like that. And I watched it happen between 95 and 2005 where we were just pushed to prescribe. And it happened across the board.

Amy Gutmann - So you actually saw that happen?

Jeanmarie Perrone - I saw the whole thing evolve. And it really wasn't until mid 2000's when we said, and in the emergency department because what we would see is, people would come in,

they had become addicted because of the therapy that was being prescribed in an effort to treat pain. But, someone said the same thing that opioid dependence and tolerance happens very quickly. You need escalating doses immediately. If you think about the story of the amazing singer, Prince. So Prince was prescribed opioids for a condition, acutely which was just a muscular skeletal injury. But he rapidly became dependent and tolerant. Over time he developed abhorrent behavior, his family maybe said, "you're using too much, we don't want you to do that" so then he had to get secretive about it, which is the beginning of addictive behavior. But because he had money and resources, people were still prescribing to him. So he wasn't on the street necessarily. A week before he died, he had a sentinel overdose, which people may know about. That was a time we could have intervened and saved him, but his family was facing stigma. They tried to do it in a secretive way. All these things happen to people in the United States every single day. And then lastly, he died of a fentanyl overdose, which is exactly what's happening in Philadelphia, so that is the paradigm from beginning to end. What we're seeing in the emergency department now is picking up the pieces of the 220 million prescriptions that five or 10% of people get addicted to. We see overdoses, we see people who don't get revived from overdoses and we see people who are seeking treatment and that's a lot of what we're working on now.

Amy Gutmann - So Mayor Kenney, your administration has declared and I'll quote on this, "Philadelphia's facing the greatest public health crisis in a century". And you've aggressively sought to stem the deaths. With some notable success. So how has the Philadelphia resilience project worked? What lessons can we learn from it?

Jim Kenney - I think the biggest lessons that we've learned is not to criminalize addiction. Which is what happened in the 80's and 90's with crack. We tried to approach this multi-agency wise. Police of course are on the front lines. Health department. Behavioral health department. Streets, actually things like sanitation and other issues that you wouldn't think directly related to opioid addiction or heroine. Mostly heroine now, when they get to the street it's mostly heroine. And we had people living on train tracks for almost 15 - 20 years. Conrail tracks, and they were down in the gulfs so you couldn't really see it. Neighbors and elected officials wanted that cleaned up and moved and secured. Which we did. It took a lot of time and a lot of money to do it. And finally we cleaned up the tracks, put up the security wall. Why'd I say wall, sorry.

Security fence, slats. (laughter, applause) It's not funny cause we're dealing with a serious issue. And then what happened was the people who were moved, and then they went and camped under four train trusses near the tracks. We just can't and we're not going to do this, we just can't drag people away. It's not legal, it's not constitutional. People, well-minded people, well intentioned people started bringing tents and heaters and fans and all kinds of things which kind of entrenched them even more. We've cleaned up two worries, two were easily dealt with. Two more were more intractable. The fourth one we finally did get rid of. But in order for us to do that, to clean up the area, we need to offer people treatment beds. I think the last time I looked we had a 160 people either in housing or in treatment. We had place assisted diversion, instead of taking people to a station house they passed them off to one of the addiction services or to a hospital or to some place that can take them. We don't want to lock people up,

it makes things that much worse. We're doing our best. Our overdose numbers are slightly ticking down, we spend more money on naloxone than I ever-- I didn't know what naloxone was. Thankfully it's there. Librarians have it, recreation department workers have it. Police all have it, firefighters, paramedics, everybody has an access to it.

Jeanmarie Perrone - So how many of you all are carrying naloxone? Narcan and naloxone is more likely to save lives than any of you who are trained in CPR. So the police carry it now, the ambulances carry it and all of you can carry it as well. So this is a real opportunity in our city to save lives.

Jeb Bush - How do you administer it? Might as well do a little education.

Jeanmarie Perrone - Yeah, so this is just a little device, this is a Narcan nasal spray and if somebody is unresponsive it just goes right up their nose. There's no needles, there's no injections. It's very safe. You just depress it and it atomizes an antidote that can save lives.

Amy Gutmann - And just, criminalizing it is making people go to jail because of this, just fills our jail. Our jails now are filled with people with mental health issues and drug issues and they're not equipped to deal with that. There's no easy answer to this but that isn't working.

Joe Biden - Madam President, there is some answer.

Amy Gutmann - Go ahead, go ahead.

Joe Biden - I know I get beat up on the crime bill but what the crime bill did was put in drug courts. They put in drug courts that a lot of police departments won't use. A lot of states don't use. They'd rather lock people up than divert them into a drug court. To move them from, instead of going to a prison, going to a treatment facility. And I think we have to do a whole lot more of that diversion in order to have some impact on what we're gonna be able to do.

Amy Gutmann - Good, really—

Jim Kenney - The other controversial issue that we're dealing with--

Amy Gutmann - I love that fact we're getting quickly, just here to some things that actually can be done.

Jim Kenney - We're dealing with a very difficult issue, very controversial issue with the overdose, we call them overdose prevention sites, as opposed to what you called them.

Amy Gutmann - Yeah.

Jim Kenney - There's 120 of them across Europe and Canada. It's very, very difficult to explain to neighbors that this is a good thing because we are saving lives. We won't operate it if it opens,

it would be operated by a separate nonprofit but we'll have our social service people and other folks there to be able to hand off those folks to us.

Amy Gutmann - Terrific. So, Governor Bush, I have to applaud you. You were one of the first leaders in our nation, as Governor of Florida to call attention to and actually start dealing with the crisis. You declared the opioid epidemic a national emergency very early on. And as Florida's Governor you had to address addiction issues across our third most populous state. I would like to know from you, what the challenges are in addressing this epidemic in diverse communities? Ranging from Miami to Pensacola, you have an incredibly diverse state and you addressed it. So what can you tell us about what's effective?

Jeb Bush - Well first I don't want to contradict the president of the University of Pennsylvania, since I'm a professor of practice and she could probably fire me. In your introductory marks, you said that we consume a third of the painkillers. We consume 85% of the painkillers in the world.

Amy Gutmann - Oh, that is news to me, that's amazing.

Jeb Bush - So, it brings to bear--

Amy Gutmann - If that wasn't shocking enough, that's why we have professors, right?

Jeb Bush - It's breathtaking. The kind of cultural, at some point our culture needs to recognize that's way over the top crazy. That, zero pain is, look as human beings we're going to have joy and we're going to have pain. You can't level it out to have something that is incredibly boring. I mean, life's full of ups and downs and that pursuit creates a purposeful life in so many ways. I'll leave that aside 'cause there's no solutions there other than recognizing that that's a challenge. In Florida, I had a personal experience with my daughter that had significant issues related to mental health challenges as well as addiction issues. One thing I'd say is that they normally go, hand and glove. They normally go together. The mental health challenges are hard to see, you have a problem with, your ribs bruised you can take a pill to alleviate the pain. When you're seeking drugs because you have schizophrenia or some other disorder, it's a lot harder for doctors to diagnose and people spiral out of control. I think one of the things we need to do as a society, talk about moon launches, Mr. Vice President, a launch of the brain might be one of the things that we should do to really study the brain to try to understand it better so that people don't spiral out of control and become drug seeking. Really because of seeing this challenge all across our state and then being motivated by my high publicized daughter's challenges which were really, really hard for my wife and I. We committed ourselves to create a strategy to deal with this and I guess the advice I would have for people that are focused on this, similar to what the mayor said is that it's gotta be comprehensive. It can't be one thing. Prevention is a key element of this. It's not cool to take drugs in general, there ought to be a higher understanding of that and the path that that leads. You need to fund treatment and it needs to be research based 'cause there's a lot of treatment that doesn't work. I'm a big fan of focusing on, we didn't do this in Florida but other states now are doing this, I think in

Pennsylvania they're doing it, certainly in Massachusetts of recovery professionals that need to be certified as such. Because this is a long-term issue. You can deal with this in a thirty-day treatment facility but this is a lifetime challenge for people that are addicted to drugs and alcohol. There are real professionals but we haven't created the certification process to recognize them and federal funding doesn't flow necessarily because of that. I think you need to get law enforcement more engaged in a comprehensive way. We're a bottom up country. We have more police officers in Philadelphia than the DEA has probably, agents. But there's very little coordination. So, I'm a big fan and we used them in Florida, the HITDA, the high impact whatever the rest of the acronym is.

Bertha Madras - High Intensity Drug Trafficking Administration

Jeb Bush - Thank you Washington comes up with these acronyms that are like, they don't want you to know what it is so they create an acronym. This one's one that it works.

Amy Gutmann - Is that the reason?

Jeb Bush - That's my theory I don't know I could be wrong.

Amy Gutmann - That's as good an argument as any.

Jeb Bush - That's very effective. In New England, you have five little states and if you can't coordinate in terms of law enforcement to keep the heroine out of the communities and keep fentanyl out of the communities, you have to have the federal government be actively involved. The final thing I'd say as it relates to drug treatment, Washington provides a significant amount of money but they have so many strings attached. There's 56 different drug treatment programs that Washington funds. I would think maybe one flow of money and allow the states and local, in large urban areas to create the strategies because we're on the front lines. Particularly mayors. They're on the front lines, they're the ones dealing with this.

Amy Gutmann - I think you have one person here who would certainly agree with you.

Jeb Bush - And then measure it.

Amy Gutmann - But we're all nodding yes.

Jeb Bush - Measure it, measure it so that you can see if it's successful or not. And if it's not, stop funding it for crying out loud. And reward success when it's working. The final thing I'd say to validate what the Vice President said. Florida was the first state to create, first drug court in the United States was Dayton County where I live. Janet Reno, state attorney did that and under my watch we created drug courts throughout the state. We were the first state, at least of scale to do that. It is phenomenally successful.

Jim Kenney - Exactly

Jeb Bush - Phenomenally successful

Amy Gutmann - I think everybody here needs to, yes let's... I think it's incredibly important that all of us here take note of these things because as concerned citizens we can actually use our voice and put pressure on public officials and drug companies to fund what works and don't fund what doesn't. So you said something very important that actually Professor Madras has worked on a lot, which is the connection between mental illness and treating mental illness and drug prevention. How you actually reduce demand, it's one thing to treat and it's quite another thing to look at what causes this and try to find how you reduce demand. Dr. Madras, you have really--Professor Madras you have really devoted a large portion of your career to demand reduction. Can you tell us something about what you think works and what's happening or not happening in this regard?

Bertha Madras - Let's just dissect the word demand reduction into three components. It means prevention, intervention and treatment. Prevention is a multifaceted organ which includes supply reduction, which means fewer prescriptions, fewer first exposures to opioids. It also includes understanding who is at risk for substance use. We know without a shadow of a doubt, the children who come from abusive homes, 50% are likely to become addicted to drugs and the severity of their addiction is higher than others. So we have to understand that a lot of this begins at home and families. There's also a contagious factor. Parents who use drugs, their children are much more likely to use them. So that's part of prevention. Prevention is understanding what the risk factors are. Prevention is including supply reduction. The second phase of this is intervention. Intervention means trying to understand who's using, who's at risk and how to intervene before they progress to addiction. And the first thing I did when I was at ONDCP was take a flight to Chicago to the headquarters of the American Medical Association. And I spoke to the executive director and I said, "I want to medicalize addiction in our country." Bring it back into the high-quality standards of medicine which we certainly did not have at that time. And he responded by saying, "We take care of alcohol and smoking and medicine. We can't take care of all human problems". And I said to him, "You are prescribing prescription opioids and we are beginning to develop a vast problem with addiction and overdose deaths to the prescriptions that you as a medical community are".

Amy Gutmann - When was that?

Bertha Madras - That was in 2006.

Amy Gutmann - So that was already when the medical profession was part of the problem.

Bertha Madras - They were part of the problem and his response was, at that instant, slamming his hand on the desk and saying, "You've got me. I understand." and as a result of that encounter, I said, "We need billing codes for physicians in order for them to screen for people who are on the path to addiction". May not be there yet but they're engaged in risky, problematic and to screen for people who are misusing opioids. And at that point, I got an

invitation to their CPT board in order to get billing codes. The final component of demand reduction is treatment. And the problem is, we have 14,000 treatment centers in the United States of which, less than a third, less than a third have quality treatment. And we have to do a lot better than that. And we have to bring those into the domain of the medical community where the standards for outcomes, for continuing month care, for quality care are much higher.

Joe Biden - Can I make a comment?

Amy Gutmann - Please.

Joe Biden - The governor's dad was president when I wrote the office, that combined all the agencies to work together on drugs. And this is a question I have for everybody. What I found was I got stuck with, because I was chairman of the judiciary committee, writing most of the drug legislation that occurred in that period. Big mistake was us buying into the idea that crack cocaine was different than powdered cocaine and having penalties, that should be eliminated. But, one of the things I found most difficult is in private, when you talk to your colleagues and I talked to my colleagues, whether they're in state legislature or governors or senators or congress persons. They really do not buy into this, they say they do, that addiction is a disease. They think it's will power. And one of the reasons why people are not willing to spend the money that could be, in fact incredibly useful in reducing demand, incredibly useful. Is because well, you should just have the willpower to do that. And one of the things you've done, Doc. And you've done, is begin to convince the American public that this is a disease. It's a disease of the brain. And the thing that the governor talked about in terms of the brain, one of the things we did in our administration was we set up an entire initiative at NIH, called the Brain Initiative, to study the brain. Spending a billion dollars just to study the brain. We know less about how the brain functions than what's at the bottom of the ocean. So, could you speak to that just a second about the idea of addiction vs will power?

Bertha Madras - Absolutely, it's an excellent question. Addiction is a bio behavioral disease. Which means that the brain undergoes vast changes after the influence of drugs because the drugs produce signals in the brain that are so abnormal that the brain adapts and once you remove the drug from the brain, the adaptation takes over and you no longer feel normal unless the drug is reintroduced into the brain. So that is a very simple way of looking at it. The operational definition of addiction is compulsive, uncontrollable use despite adverse consequences. But that's a behavioral definition. It's not a biological. The problem is for many people, is that people age out of addiction. They may have an alcohol problem, they may have a cocaine problem but if you look at the data, you see this upsurge of addiction that occurs and then it just declines as a function of age. So people say, if people age out, if they quit smoking cigarettes and they don't need even to go to rehab then why are we calling this a disease? The problem is, that that may be true for some people but certainly not for others.

Amy Gutmann - Some people age out by dying.

Bertha Madras - Some people age out by dying but there are many people who have such severe, profound brain changes that unless you help them, in the case of opioids the help is with certain medications, you cannot really climb out of that uncontrollable urge. Now for many addictions, and we should not only be speaking of opioids, we have many drug challenges in our country. 50,000 died last year of opioids but 20,000 died of cocaine and methamphetamine. What we have is no medication for many of them and it is clear that behavior, behavioral control, volitional control is part. It is absolutely part of treatment.

Amy Gutmann - So, Dr. Perrone, we know there's a lot of stigma surrounding opioid use disorder and even greater levels of misinformation out there about treatments that are evidence based and those that are not. What are some top facts that you would want everybody to know that would really be useful for us to know and take, not only to mind but to heart. When in our roles as concerned citizens and professionals.

Jeanmarie Perrone - Yes, thank you, it's such a great opportunity. There is treatment. There are medications that help substantially. These are not medications that are, there are some medications stigmatized. There is the drug methadone, which is a full opioid agonist so it acts like heroine. Some people say it's like one addiction for another but that's completely untrue because it stabilizes the brain, like Dr. Madras said. There is a need to replace that drug that's been taken away but it prevents the addictive behavior, prevents that behavioral impulse to go out and seek the drug and so they can stabilize, they can work, they can go back to their families, they can take care of their kids. So methadone is an amazing drug that has been around since the late 1960's but it can only be available by going to a treatment program every single day. It's highly regulated. The government was very concerned when that became approved. In 2002, another drug got approved which was called buprenorphine, I'm gonna call it suboxone, which is a trade name. But, suboxone is another very viable treatment for opioid use disorder. The problem with suboxone, well first I'll tell you the benefits. It works like methadone except it's safer. It's not a full agonist, it's a partial agonist but it has a ceiling effect so it prevents people from over dosing. But it also prevents them from using heroin or fentanyl. So it's tremendously helpful and what we're doing in our emergency department is we want people to get into treatment. People can't make appointments when they're going through the cycle of withdrawal and craving and using. So they can't get into treatment so we need low barrier treatment and what we have done is we've started from our emergency department, getting people into treatment by giving them buprenorphine when they come to the emergency department and they're in cycle of crisis or seeking treatment. We can start them with their very first dose on that visit and that makes a huge difference. But, in concert with that, they need support and the advocates that we have, Nicole and Bryant, two people that I've been working so closely with in the past couple of years, are amazing. They're certified recovery specialists, they take that patients hand and they guide them to their first appointment, to their treatment. Nicole just drove a patient to an in-patient treatment center last Saturday morning.

Amy Gutmann - Nicole, will you stand up? Yes, yes. (applause)

Jeanmarie Perrone - So, as Governor Bush said, certified recovery specialists in concert with medications, there is treatment. So the stigma of AIDs, ten years ago, 15 years ago was that there's no treatment so people were keeping their family's members at home. There is treatment. We can help, but we need resources and opportunities to get to these patients.

Jim Kenney - Part of the difficulty from local government standpoint is the citing of the locations of these facilities. No one wants them in their neighborhood. The people who are living in neighborhoods that are suffering from, non-addictive people who are suffering from the scourge don't want the treatment facilities anywhere near them but that's where the people who need the addiction services are.

Amy Gutmann - So one acronym, I bet a lot of people have heard of is, NIMBY, right? How many have heard of NIMBY? Not In My Back Yard, right?

Jim Kenney - But legitimately, they're scared. They're in the epicenter, they're in the center of the core of the problem.

Amy Gutmann - Absolutely.

Jim Kenney - And their kids are in the center of the core of the problem. We put up needle disposal boxes near elevated train lines, exits and entrances so we could reduce the number of needles in the street. When we do cleanups. We've done four major cleanups in Kensington and Fair Hill in the last year. The number of discarded needles is just amazing. People when they're walking their kids to school are scared. What we've tried to do is we try to find facilities that are somewhat in close campuses, whether they're like a community hospital, things of that nature. But again, with the overdose prevention site, that is extremely controversial and extremely frightening to people. And the other issue is that people who were meeting just the other night were saying, what if we put those in our neighborhood or allow it, are we giving up. Are we just throwing our hands up and letting people inject legal substances without any consequences. We have to explain to them that when the person comes to a facility like this, in addition to being able to inject relatively safely and not overdose. There is showers, there's lounge space, there's space to interact with social workers and addiction specialists. There's the opportunity to get your arms around them and to try to get them into another place. You can't do that when a person's under a train trestle, in the dark, by themselves. We just have to pick up the body at the end of the night.

Amy Gutmann - So another fact that people have to take to mind and heart is that there isn't one single, simple bullet solution that's part of a larger program that's needed here.

Jeb Bush - First of all--

Amy Gutmann - Governor.

Jeb Bush - I would add a little context to this. A lot of the people that are suffering with this addiction aren't living on the streets. I mean, a ton of them.

Amy Gutmann - Right, right.

Jeb Bush - My ill-fated run for president, which I recommend people do that if they're thinking about it. (laughter) Are you thinking about it, mayor? I was talking about the mayor but that's okay.

Amy Gutmann - Right, just a little random advice, well done.

Jim Kenney - I'm looking for a beach.(laughter)

Jeb Bush - My first trip to Manchester

Joe Biden - Speaking of addiction

Jeb Bush - First trip to Manchester, I met the receptionist at the Hilton Garden Inn. Her daughter died of an overdose, the waitress at this tiny little restaurant that I was with the mayor of Manchester. He told me that she had a son that died of an overdose and the guy that traveled with me throughout my time in New Hampshire, his brother died of an overdose. Literally within two hours, I met three people whose lives, whose families were gonna be altered for the rest of their life and they had three deaths. There's a 20% increase in foster care in places, in West Virginia and other places where the most severe outbreak of this epidemic exists. And so my point is, this is a national challenge. If we marginalize it to the most vulnerable, the people that we see sadly on the streets, which is something that I applaud local governments doing what they have to do. I think they miss the point that this effects a broad number of people. And I would add another thing, this may be a little off field but there's a problem with alcohol abuse and the public health challenges that deal with alcohol is even probably, from a health perspective, the universe of people that deal with that issue and the families that deal with that are extensive. So if we're focused on the public health challenges of addiction, I think we need to look at it in the broadest possible way.

Amy Gutmann - Every socioeconomic background, every race, every creed in this country is effected by this. Mr. Vice President.

Joe Biden - I wanna ask my elected colleagues this. Do you guys find that--

Jeb Bush - There's only one of us.

Amy Gutmann - See, I don't need to ask questions.

Joe Biden - Those of us who've run for office.

Jeb Bush - Oh, okay that's different. (laughter)

Joe Biden - You were a hell of a governor. One of the things I find, and I suspect you're still hearing. So many people come up to us and ask for help from literally the husbands and wives of millionaires to people on the street. And the thing that I most often get asked is, is there any treatment? How many of you know someone and raise your hand, who sought treatment, went to a facility where the recovery rate was one, two, three, four, five percent. That virtually did nothing for them, raise your hand. How many of you know people? And I don't mean you, I mean people you know. And so one of the things you talked with me about backstage, doctor is, is there a way to get to a certification level where people can identify treatment facilities that really have some muscle to them. Have people who know what they're doing.

Amy Gutmann - Know where to go that works.

Jeanmarie Perrone - So, at Penn, at the hospital. We have to report our successes in cardiac surgery. There would be no reason why we wouldn't mandate that a rehab place would look at the outcomes of their rehab. It is a difficult disease to treat but if you have failure rates that are in the range of 80-90%, part of that is the disease of addiction and that's what they're hiding behind. But part of it is not having to follow those outcomes so absolutely, we definitely need regulations and outcomes and more visibility. Because what happens is, everybody with private insurance and extra money pays thousands of dollars. Hundreds of thousands of dollars to get their kid into one of these treatment facilities. And on day 31 or at the end of six months, you know they're still walking out, looking to use. They just don't get better unless they're getting evidence-based treatment which is these medications or a combination of treatments.

Amy Gutmann - So, I wanna ask a question that we haven't touched on here but it's in the news a lot and it's another one of those really complex issues that I wonder if, particularly our public officials, your views on this. A substantial factor in this epidemic is said to be all the illegal drugs coming into our country from abroad. They include powerful, synthetic narcotics that make their way into less powerful drugs which are leading, we're told, to a spike in overdosing. How are we doing in detecting and intercepting illegal drugs and are we doing as well as we can do? Or anybody who knows about this.

Jim Kenney - It's really hard, we're not doing as well as we can do and it's clear 'cause we have the problems so pervasive. But our police department works very closely with our federal partners. The Department of Justice, the FBI, ATF and all the agencies and they do a good job and they work very well together. There's been a couple of large interdiction drug busts in the last number of months. I think part of it is, on a larger global scale. From my understanding and correct me if I'm wrong, much of the fentanyl comes from China and having the ability to negotiate these kind of international deals to get the Chinese to crack down on it at home, I think is another answer to the problem. By the time we get it, and we're on the street. We're under the L and it's hard. And the other issue is that for people with a small possession amount. What do you do with them?

Amy Gutmann - By that time, it's already in.

Jim Kenney - I'm kind of at the lower end of, I think maybe a governor has more ability--

Amy Gutmann - What at the state and fed, Mr. Vice President, what do you see that we are doing and what more could we be doing here?

Joe Biden - I spent five years of my life working on this particular issue and we ended up with the commission that Doc worked on. Look, there's three things we can do. One, is, and it's all demand driven. One, we can negotiate with the countries of origin of the material that they're sending in. We did that fairly successfully with Columbia early on.

Bertha Madras - We did the Columbia plan and the Merida.

Joe Biden - Yeah, I put together this plan called, Plan Columbia. It wasn't very well greeted at first but what we did was, we went in and we actually worked with their law enforcement. For example, we did lie detector tests. We brought our FBI down to Bogota. There were over 7,000 federal police. We were able to get to the point where we convinced them to fire almost 5,000 of them. And we helped them hire non-corrupt elements of the police department and it had an impact. It didn't stop everything. In China right now, China made a commitment to our administration that they were going to regulate all elements of fentanyl. There's various degrees of which, it constitutes how much of a problem it is. But what we can do, most of the fentanyl is coming from China but it's also going through Mexico. And the vast majority as you'll learn with these trials of El Chapo, the drug lord is it comes through legal ports of entry and one of the things we argued for a long time but is very expensive. That we have the ability to have these large, look like containers that are x-ray machines that you literally drop over top of an entire tractor trailer and you can determine the density within that trailer of what's in the trailer. For example, the largest drug bust was carrying cucumbers but they found all this fentanyl in the bottom because they could tell by the density it was something different. Well, we have a 37, 38 ports of entry. We're now up to having 34 of these big machines but we need probably three times that many. But the administration, and we didn't do enough either, resisting the cost of them coupled with the fact they need at least four people operating them. They're very expensive to operate. I'm not being a wise guy about the wall and the president and all that, for real my word. But instead of building more barriers, if it's drugs you're talking about, we could take one tenth the amount of money we're talking about building in a wall and significantly increase the technological capability at legal points of entry. Because that's where 95% of all the stuff is coming through. And so we can, A, negotiate with the countries in question and have consequences for their failure to cooperate. As well as have a significantly more sophisticated technological capability and additional personnel at the ports of entry.

Bertha Madras - I think there's more than that. One of the interesting things in 2006 is that there was a super lab in Mexico. In Toluca, Mexico that produced all the fentanyl that killed 1,000 Americans at the time. When that super lab was taken out, the fentanyl deaths went back to near zero. So that was a point source. We know have at least five-point sources from

China. And one of the things that our government can do, is number one, do the type of tracking that federal express does which our postal system does not do. And the second issue is we can use our vast economic leverage with China to have them enforce their own laws on fentanyl production and that is one way to squeeze the Chinese government into curtailing production.

Joe Biden - Cause a lot of it comes through the postal service from China, directly from China. But if the same package came through Federal Express, it has a different method by which you can check it out. But not for all postage coming out of China, you could do that.

Amy Gutmann - Governor Bush.

Jeb Bush - I was gonna say the exact same thing, the postal service is treated differently than UPS and FedEx. There's a bill in the senate, I don't know where it is in the house, to change that. To raise the standards, it costs a little bit more but fentanyl, such small quantities creates such dramatic impact, we have to do it. We're in the midst of negotiating with, being an optimist I hope this happens, a new trade arrangement with China that is really essential for, it will be a big deal if it happens. This should be part of that and there should be no lifting of any kind of tariffs until it happens. This is a national problem. They can solve it.

Amy Gutmann - Can this be a bipartisan issue--

Joe Biden - And by the way, that legislation passed and the deadline was the end of 18 to implement it but the administration is not implementing it now. It's supposed to be implemented. Dealing with post--

Jeb Bush - They raised the God dang stamp to 51 cents

Joe Biden - No, no, no

Jeb Bush - This is an outrage and they can't do that? (laughter)

Joe Biden - But it has not been implemented, that's the problem. The administration hasn't implemented it.

Amy Gutmann - Well that's a big deal to implement this. Let me ask you, Governor Bush. You implemented a multifaceted strategy when you were governor. What do you think governors today can do that would be most effective? What would your advice be here?

Jeb Bush - Well first of all, a lot of Governors are doing this. This is the number one issue in most places. New England was the place where it was the quickest to hit. The governors of New Hampshire and certainly Massachusetts, Charlie Baker has done a phenomenal job building grass roots support from the bottom up to create a comprehensive strategy. Ohio is another place where I think there's been a lot of great work. I'm relatively optimistic and confident and

you're seeing a decline in the number of overdoses with prescription drugs. Sadly, fentanyl now is the place where there's been an increase. This is a never-ending challenge. I think looking at this in a comprehensive fashion is part of it. The one place where in Florida there was the most dramatic impact of restricting prescription drug illegal use was the prescription drug monitoring system that was developed. That was not during my watch. In fact, the legislature rejected it like four straight years because of civil liberties concerns but they were wrong and the minute it got implemented in the last four years, we went from South Florida being the pill mill capital of literally, of the United States to getting it wiped out entirely.

Amy Gutmann - Wow. (applause)

Jeb Bush - Drug seeking people find the pharmacists that are prescribing illegally. Medicaid is a principle source of reimbursement for a lot of this. We have the ability in this country to know when people are over prescribing, exponentially more than they deserve. And the hammer ought to be brought down on them like nobody's business. It shouldn't take three years for investigation because during those three years, my frustration as governor was the US attorney's office, methodically going about their business, didn't let us go and take the guys' license away as he was over prescribing. And we had to pay the consequences of a lot of pain and suffering in families. I think accelerating the law enforcement prosecution of this stuff, there's just a handful of doctors that open up this market in a way that provides the illicit drugs.

Amy Gutmann - Yeah and I think that's important point just for us to know because while doctors are a source of this problem, it is a tiny fraction of the doctors. Most doctors do and want to do the right thing but a tiny fraction can make enormous--

Jim Kenney - Part of it is education, you have to educate these doctors in these communities or neighborhoods. Neighborhood docs on the corner. You have to really go out and talk to them and explain to them and give them information because they don't always have, you assume that they're doctors, they're smart, they know everything, well they don't have all the information. (You do, you do.) They don't have the information and we've done that with our health department going out to individual practices and giving them information, engaging them and explaining what role they can play in a positive stance.

Jeb Bush - Another thing that the states are doing, I don't know if it's every state but every state should do it, limit the first prescription to seven.

Jim Kenney - Yeah, I had surgery a couple of years ago and I left the hospital and they handed me a pill bottle with 30 oxycodone.

Jeb Bush - That's ridiculous.

Jim Kenney - What am I gonna do with this? And what happens I think sometimes, you don't need anymore. You take three or four then you find a got a Tylenol 800 and you're fine, glass of

wine and you're good. But it sits in your medicine cabinet. And if you have children in the house, that's where some of this stuff starts.

Joe Biden - Doc, you said a statistic but I think it's important to know. I mean I don't think doctors are bad, they're good, they're trying to save lives but it's kinda willy nilly. You, I remember reading a report where you said, the people who show up in the emergency room with a sprained ankle, 25% of them get an opioid prescription.

Jeanmarie Perrone - That's really, yeah.

Joe Biden - What the hell's that about?

Jeanmarie Perrone - It was actually--

Amy Gutmann - That is malpractice.

Jeanmarie Perrone - Right, we found out, we did a geographic study across the country and the range was something like maybe five or ten percent in Nebraska and up to 40% in Alabama or some southern state. So tremendous variability. And that was for an uncomplicated ankle sprain. And so that is egregious prescribing but that is a result of a generation of doctors starting in 1995 who are now, 2015, 20 years of practice where they were tuned into this pain score.

Joe Biden - Zero pain

Jeanmarie Perrone - Not only that but patient satisfaction scores, you know you rate your Uber driver, well they now rate doctors. Nobody can afford to have a four-star rating when everybody comes down on you for not having a five-star rating.

Joe Biden - How about hospitals and pain? I'm serious.

Jeanmarie Perrone - It's all, I totally agree.

Joe Biden - Hospitals get rated and the patients determine when they leave the hospital, did they leave in pain? Well one way to make sure your rating stays up is make sure you don't leave in pain. I guarantee you're not gonna leave in pain if you're taking an opioid.

Jeanmarie Perrone - Yeah.

Amy Gutmann - Yeah.

Joe Biden - But serious, why don't we talk about this?

Bertha Madras - The good news is that there is a 50% drop in new opioid prescriptions for drug naive people. Which is excellent news. And the other excellent news, that I believe is that the physician prescribing issue is solvable and it's getting solved. I don't think that that's where the future of policy lies. The future of policy lies in the new psychoactive substances, fentanyl analogs of which there are a thousand possibilities in fentanyl.

Amy Gutmann - So, let me ask because I have time for one final question. We're gonna do a lightning round down the row here and then we're gonna open it up. I have some questions from the audience. The final question is, if you could have all Americans know one thing that is misunderstood or take one collective action. What would it be, to help solve this problem?

Bertha Madras - My first priority would be to not introduce drugs into the developing adolescent brain because that is--

Amy Gutmann - Amen, amen. Governor. (applause)

Jeb Bush - Well if I had a fairy godmother land on my shoulder and give me any wish, it would be to change our culture so that we don't default to taking a pill to resolve our problems. The way to solve our problems is to solve them.

Amy Gutmann - Mayor. Do you realize we have professor, governor, mayor, doctor, Vice President, what more could you ask for? Mayor Kenney.

Jim Kenney - Substantially more financial help for local communities to deal with this problem.

Amy Gutmann - This is an under, so we may spend more than any other country, almost twice as much per capita for healthcare but we vastly underspend for mental health, for drug problems and for public health. So vastly underspend.

Jim Kenney - We stretch. We're gonna spend 36 million dollars over the next few years dealing with this issue. Plus, police overtime, all the other issues that affect trying to manage it and deal with it. Every time I think of spending money on misery, which were like the misery dollars. I think of spending that money on schools and facilities and infrastructure and transit. There's so many other things to spend money on but we have to spend the money to save people's lives. We have no choice.

Amy Gutmann - Dr. Perrone.

Jeanmarie Perrone - Keeping opioid naive people opioid naive. Nobody should take these medicines for treatment, one, two, three, there's alternatives in almost all cases as first, second and third line. And we just need to prevent people from getting started in most cases.

Amy Gutmann - Could you add on that? 'Cause I know we talked on that before we started about what are the role of places like CVS and Rite-Aid, the places people actually go to get their prescriptions fulfilled and now more and more are opening store front places.

Jeanmarie Perrone - Those store front places are dangerous because they want to get you in and out quickly. They still have that perception that patient satisfaction is driven by receiving an opioid prescription. Like, you take your kid to the doctor for an ear infection. People think that you want antibiotics. You may not want antibiotics but the doctor's perception might be that you want antibiotics. Instead of just giving them the prescription, having a discussion but that takes ten, 15 minutes instead of just one minute to write a prescription. So it's much easier but wrong to go the easy path. We need to go the harder path. Education, don't take these drugs therapeutically when there's many very effective alternatives.

Amy Gutmann - Mr. Vice President.

Joe Biden - Little pain's not bad. I would point out. I would wish if everyone went to sleep tonight in the United States of America and woke up understanding how addictive Percocet is, how addictive these pain killers are. They don't understand it. They don't know how addictive it is. And not everyone who uses them gets addicted but a significant portion do get addicted. And people just don't know it. So when the pharmacist or the doctor or the hospital as you're walking out of the door, you have great faith in them. The one place we still are reluctant to question is our doctor. Of all people. And he hands you a little plastic bottle and it has twenty Percocet in them. You have to believe it must be right. I don't know because I've been through this a lot, I've been a great consumer of health care. No I really have. Hospitalized myself for seven months myself in ICU, lost family members, I spent a lot of time in hospitals. And I want to tell you something, I've not seen any doctor say, "Now look, you understand this. If you take this, this can be really, really debilitating. You understand? And by the way, try Advil first". By the way, not a joke!

Jim Kenney - It happened to me. I was in the hospital and I was on dilaudid. Which is--

Jeanmarie Perrone - Everyone's looking at me, like I prescribed it.

Jim Kenney - I mean, it's kind of fun. The nurse came in and she said, "Honey, you like that button too much. You're coming off today".

Jeanmarie Perrone - Good for nurses.

Amy Gutmann - Good for that nurse.

Joe Biden - Anyway, for people that know how addictive it is so you can make a rational judgment, a rational judgment about how much the pain is. If you're thinking that I've got this pain but if I take this for five days, I may be one of that percent that in fact becomes addicted.

You make a rational judgment, assuming you don't have other problems already. But people don't know.

Bertha Madras - Well, there is a problem in this country called generational forgetting because we had a terrible opioid addiction epidemic starting in the 1820's and it lasted until 1910, until the federal government intervened. And we forgot.

Amy Gutmann - What did the federal government do?

Bertha Madras - They forbid physicians from treating addiction with morphine. And they said--

Jeb Bush - That makes sense.

Amy Gutmann - Yeah, yeah.

Bertha Madras - And what was fascinating is that from 1914 on until 1990, I would say that was a precipitating point. There was opioid phobia amongst the medical profession.

Joe Biden - Bingo!

Bertha Madras - Then it went into opioiphilia because nobody...

Amy Gutmann - Remembered.

Bertha Madras - ...learned the history.

Joe Biden - And the morphine came because of The Civil War.

Bertha Madras - No, much earlier.

Joe Biden - No, but it really hit with The Civil War, that's when it was being overwhelmingly prescribed and it was viewed as an answer.

Bertha Madras - Yes but until then it was women who were most effected by morphine addiction.

Amy Gutmann - So we not only, right here have addressed what some of the things that can be done but also how important it is to remember when we do do things that are effective and keep, as Mayor Kenney said, the education going. Hence, this panel but now is the most important part whereas we have questions actually from our audience. And I have these questions and I'm going to throw them out to any of you to answer them. But I'm going to ask if the person in the room who wrote this question would stand up. Her name is Katelyn Crane and she's a nursing student. Katelyn are you here?

Katelyn Crane - Hi

Amy Gutmann - Hi, great. So, Katelyn's question is as follows and by the way, I have to say because Katelyn's a nursing student, I assume are you a Penn nursing student? Well, you should all know that our nursing school is ranked number one in the world. Not to brag or anything. And we really care.

Joe Biden - If there's any angels in heaven, they're all nurses, male and female.

Amy Gutmann - Correct. How does the current state of mental health care influence the opioid epidemic and what can we do? Who would like to begin?

Bertha Madras - Well I think there has to be--

Amy Gutmann - Why don't you say what you're affiliated with too.

Bertha Madras - I am currently at McLean Hospital, which is the number one psychiatric hospital in the country. I think one of the most important issues we have to introduce into addiction. Into primary care, into most branches of medicine is mental health screening. Because mental health screening whether it gives rise to diagnosis of severe mental illness or a mild mental problem, is a co-factor. It's a precipitant of drug use. And if you don't treat the mental health condition it is very difficult to get people who have an addiction to drugs to be treatable as well. You have to do both.

Amy Gutmann - Anybody else? Yes, it's very, very important. Anybody else want to address that, Mayor Kenney.

Jim Kenney - I do think in general whether it's addiction or just mental illness, the police departments in our country need to train our officers to deal with people with mental illness. Because, and we do this here. You know, so many times around the country, people wind up being shot by a police officer because they don't know the protocols of how to deal with individuals going through a crisis. And we were very, pay attention to and train our officers, both in the academy and ongoing education. Some methods of dealing with people who are going through this trauma.

Amy Gutmann - Yeah, I know that our vice president for public safety, Maureen Rush believes in this. And Maureen is here. Thank you for all you do. Any other answers to this? Okay, next question. Will Adams, Wharton student and of course I have to say, Wharton has just been ranked, unrivaled the number one Business school in the world. Thank you, Will. Here's Will's question. How can we balance short term emergency response with long term solutions to the opioid epidemic? So, how do you balance the short-term response with the long-term solutions? I think that's just a critical question. Yes, Dr. Perrone.

Jeanmarie Perrone - So, I think we're distributing the naloxone around the city and that is the short-term response, right? We save lives. But you should know that about 10% of the people who are resuscitated with naloxone are dead in a year. If we don't get them into treatment right from that moment, we're losing an opportunity and people are dying. Kudos to the mayor and EMS, the city has now started a new program where when patients are resuscitated with naloxone but they don't want to come to the hospital, something called an alternative response unit comes to the patient's side with social workers and certified recovery specialists to try to get them into treatment. We cannot miss these opportunities so acute resuscitation needs to be followed by treatment, intervention or just engagement. Just connection to care with people who are peers who can speak to the patient. Say, you know I've been there, I know what you're going through, I know now might not be the time but next week or next month, come back.

Joe Biden - You have to do both.

Amy Gutmann - Absolutely.

Joe Biden - You can walk and chew gum at the same time, we have the resources to do it.

Amy Gutmann - Things on long term. Mr. Vice President, what do you think the most important long-term solution's here are?

Joe Biden - I think two things at the same time, actually three things. One, what the governor talked about is significantly more scientific research on the brain. and determine how it functions. Number two, I think to deal with the thing that gets people engaged in the first place and that is determining whether there is something in the brain that generates this kind of behavior or the way in which we distribute these drugs is the second piece. What gets people hooked in the first place? And thirdly, once they're hooked to spend a great deal more time, energy and expertise. We should be incentivizing our drug companies to find alternatives to the opioids they're producing out.

Jim Kenney - Can I ask the doctors a question?

Amy Gutmann - Sure.

Jim Kenney - What's the research say about the use of cannabis in an effort to reduce the severity--

Amy Gutmann - If anyone doesn't know what cannabis is, it's AKA marijuana and let me just say one point about that, I'm not gonna answer. I definitely want Professor Madras to answer but it is quite striking that our federal policy only allows medical research on cannabis in one facility, one institution in the whole United States at the University of Mississippi. That's bazaar. Now go and if you'd answer the mayor's question.

Bertha Madras - With all due respect, that is the source but that is not the only facility. There are 300 clinical trials with cannabis, I prefer to call it marijuana because cannabis is the same as calling opium, papaverum somniferum. It's a latin terminology which applies to...

Jim Kenney - That's smart.

Bertha Madras - ...sanitize the fact that in this country it's marijuana.

Jim Kenney - Weed.

Amy Gutmann - There are many strains which have very different properties.

Bertha Madras - But basically, the two big ones are THC and CBD. And THC now is up to 90% in some depts and CBD has been essentially bred out of the plant.

Amy Gutmann - So what is the relationship?

Bertha Madras - Paul Larkin and I, who's a lawyer, have just published, it's going to be in the Georgetown Law Review, a complete summary of the data and the evidence for and against using cannabis. And so there is a level of familiarity with the question and the answer. At this point there are two conclusions. Number one, the data does not show that cannabis is a substitute because if you actually do longitudinal studies on an individual basis, you find that people are suffering as much pain as they're taking marijuana and their opioid use is not decreasing in most cases. In fact they're getting more and more trouble in terms of developing opioid use disorder and they're misusing opioids. That's basically the latest data, one publication just came out last night on it. Number two, every single disease that is treated in this country. Like diabetes, like infections, like cancer is evidence based and undergoes randomized control clinical trials and to say that this is by legislative support or by fiat from a governor's office that this is how you can treat opioid use disorder without the clinical trials, without longitudinal studies to me is purely disrespectful of patients.

Amy Gutmann - Yeah, agreed

Jeb Bush - Well said

Amy Gutmann - And it's a totally different issue what cannabis, what the trials have shown about how it can decrease pain in other areas.

Bertha Madras - There's only, no more to the best of my knowledge, five randomized controlled trials in neuropathic pain, which is a very special type of pain. And of those trials, none of them lasted more than two weeks. They were all experienced marijuana users, they were all on opioids and that is exactly the problem that got us into the opioid crisis because people did not do longitudinal studies on opioids. They just did it, at the time this crisis began there were no studies beyond three months.

Amy Gutmann - Yeah, so you take real exception to the national academy--

Bertha Madras - The national academy report of chronic pain was in deep, profound error.

Jeb Bush - There you have it. News at 11.

Bertha Madras - And even though I am now on the opioid collaborate, I am willing to come out and say what is the truth.

Amy Gutmann - Okay, next question. Emily Arthman, who is an incoming Wharton student. Emily, congratulations. How is government thinking about its' role in improving patient access to medication assisted treatment? So, how is government thinking about its' role in improving patient access to medication assisted treatment?

Jim Kenney - That's above my pay grade.

Jeanmarie Perrone - I can answer for Mayor Kenney. In the city of Philadelphia, we have treatment capacity for MAT that is not being used. So they have lowered the barrier, there is lots of opportunity. We are working really hard to get patients into treatment but we have tremendous capacity. That's probably unlike most other cities but we have three patients dying a day in Philadelphia. We are at a huge crisis and that's why we need safe injection facilities, safe house, other places where we can get people in. If they're not coming in to our treatment centers, they're not coming in to my emergency department. We need to reach them some other way and we're doing a lot and Mayor Kenney should be applauded cause he's done a really amazing job.

Amy Gutmann - Professor Madras, what's your view on the getting people who need to be in treatment facilities in.

Bertha Madras - There are a couple of issues. The vast majority of people with an opioid use disorder do not come to treatment. And when it's excavated into granular level, you find that many of these folks do not want treatment, do not seek it. Another part says they don't want to get into treatment because of stigma. They're afraid their family will find out, they're afraid their employers will find out. Recruiting people who are not in treatment, to me is one of the most important issues and having them be offered medications is a critical feature of this. How do we do it? The federal government is critical through CMS. Because CMS has tremendous control. Number two, the federal government every year, the office of personnel and management issues a call letter to all the insurance companies who insure federal employees. That call letter has tremendous impact on all the insurers in the country because it sort of glides the entire country reimbursement model on what the federal government considers critical. And that call letter should include that you must make medications available. It is harder to get approval for medications to treat opioid addiction than it is to get approval to give someone a Percocet prescription. And that's wrong.

Amy Gutmann - That is deeply wrong.

Bertha Madras - We put that into the commission report.

Amy Gutmann - Yeah and this actually, so insurance companies could change that?

Bertha Madras - They could put the squeeze in both directions. They could squeeze the physicians in terms of prescribing opioids and they can squeeze physicians, not squeeze them but empower them to prescribe medication which reduce death rates, HIV, Hepatitis C and so on.

Amy Gutmann - Hear, hear.

Bertha Madras - And maintain people in treatment.

Jeb Bush - One of the crazy quirks of our reimbursement system is that doctors, we've been banging on doctors too much. I'm not an anti-doctor guy but in this particular case, when they prescribe, they make more money. They get a 6% commission more or less for prescribing and the natural inclination is to prescribe non generic drugs and so if you're looking at access to medications a lot of times people stop taking their medication because they don't have insurance and it's quite expensive. So expanding generics across the board, in this field. In other areas as well would be part of this. And I go back to another point which is that treatment is short term. In the most expensive places I'm sure it goes on for more than thirty days but most people have insurance for thirty days and then they're out. So reforming the treatment system, looking at best practices, benchmarking it properly, rewarding the successful programs, stopping the ones that don't work--all those things have to happen. But I think the last part of this is that we need to create the stigma issue is a serious one and people are going to be, their life long journey is gonna require a commitment to recovery. This, whether it's alcohol abuse or drug abuse, these addictions don't go away. You can deal with them and if you have the courage to do it and the family support and the support in the community, it's a lot easier to do. But that's something that is foreign to most places in this country. We don't have that kind of environment where there's that support.

Amy Gutmann - So you said earlier, in our lightning round that if you could change one thing it would be the culture. Can you just elaborate a little on a part of our culture that you think we could all play a role in changing?

Jeb Bush - The two parts I would say. One is if we, if it's a third the prescriptions, that's bad. If it's 85%, which I think it is, in the world with 6% of the population, that's absurd. That's a cultural problem. We're not, that's so unique to us that we have to deal with the fact that every problem in life doesn't, shouldn't...

Amy Gutmann - Have a drug

Jeb Bush - ...another pill. And in the second is this stigma that really isolates people rather than brings them into a more nurturing environment where the families and communities are and churches and synagogues are there to help people to deal with this illness over the long haul. We've torn apart a lot of these things, the safety net of America and rebuilding that to deal with these kind of issues would be.

Amy Gutmann - Yeah and if you'll excuse, to that we should say, Amen. Because it really does take community, it takes institutions, churches and synagogues, mosques, Community centers. This is not something that anyone can struggle with alone, right? So that's a very important antidote to the individualist, empathist of our society where, and that feeds in to all you have to do is take a drug. But you really need a community of support.

Jeb Bush - Yeah, and people have to be committed to do this. The drug court issue works, not because it's necessarily diverting someone from jail. It works because the threat of jail is still there. So you complete your sentence and you have your judgement withheld. That is a powerful tool to keep people on the straight and narrow. And along the way there may be, people make mistakes and they stick with it far more than if you just put them in jail and they get out and immediately they go back to their bad behavior.

Bertha Madras - I would like to paraphrase Governor Bush and also Vice President Biden. Because I learned in government that you have to talk in sound bites. We have to de-normalize chemical coping and chemical reward because that is the basis of our drug problem in this country.

Jeb Bush - That's a soundbite?

Joe Biden - Doctor, let me ask you a question. You know for awhile, ten, twelve years ago, there were a lot of people with your collective expertise who were talking about the need to go back to studying the brain to find antigens and antagonists that would prevent the drug from having the effect on the brain that it had. I met with every major drug company and we talked about an orphan drug act which we would provide them with significant rewards if they were to find this. None of them are interested in it. None of them are interested in it. Because number one, they don't want to be known as the drug company in terms of illegal drugs. And secondly, there is little reward. Notwithstanding all these people that are dying and all the people that are addicted to opioids. There's still not enough money to make from that particular population which can't buy the drug anyway if they found it. Is there anymore talk about this anymore?

Bertha Madras - Well there are a lot more pharmaceutical companies entering the fray now because they're very interested in isolated cannabinoids. They're interested in what are called biased agonists, which are opioids that are going to develop different signaling pathways than the conventional ones which will not lead to addiction or over dose but will lead to pain reduction. And there are companies that are very interested in developing pain medications that are non-addictive. There are also drug companies that are non-addictive. There are also

drug companies that are interested in developing medications to alleviate. It's become now more normalized, more centralized than it used to be in the past.

Joe Biden - I think it is but there's a small percentage of money.

Bertha Madras - Very small.

Joe Biden - Very small percentage.

Bertha Madras - One of the reasons that it's very small besides, and I won't numerate all of them but one of the main reasons is the difficulty of developing clinical trials with people that have substance use disorders. Because of the high drop out. Once you have a high dropout rate you have to explain that to the FDA. Once you have a high failure rate, then you may have invested two billion dollars and because of the high failure rate, the 25% or the 10% that are successful, may not be enough to convince the regulators. Because the population is much more difficult than it is for chemotherapy. There is a lot more problems associated with developing drugs in as for substance use disorder.

Amy Gutmann - So, I just want to say on behalf of everybody here, how much we've learned. That really could, and I hope will make a difference to every family in this country because I just think we need to understand and underscore what this panel has said. That this is an issue that knows no economic or racial or religious distinctions. It really effects everybody here and please join me in thanking Professor Madras, Governor Bush, Mayor Kenney, Dr. Perrone and Vice President Biden.