

THE BROOKINGS INSTITUTION

FALK AUDITORIUM

THE TRADE: OPIOIDS IN AMERICA

THE SECOND EVENT IN A  
FILM DISCUSSION SERIES AT BROOKINGS

Washington, D.C.

Thursday, May 24, 2018

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## P R O C E E D I N G S

MR. BERNSTEIN: Hello, everyone. Welcome to this event here at Brookings. I'm Lenny Bernstein. I'm a health and medicine reporter at The Washington Post. I've been covering the opioid epidemic now for about the last three years pretty intensively.

As David mentioned, tonight is the second in a series of film events that Brookings will host over the next year. Tonight, obviously, the focus was the opioid epidemic. And we're going to talk about both the domestic situation and the situation abroad.

I just want to bring up a few points of information that I'd like to make sure everybody knows. Probably a lot of you have heard this all before, but for those who are maybe new to this, we are now 22 years into the epidemic. OxyContin was introduced in 1996, kicked off the pill epidemic, which lead to the heroin epidemic, which lead to the fentanyl epidemic. It's not like any of the first two have gone away. We are still in the grip of all three forms of opioid abuse.

In 2016, the last year that we have numbers for, about 64,000 people died of all forms of drug overdose and about two-thirds of those were opioids. For context that's about 175 people every day or if twice the population of this room just suddenly disappeared every 25 hours. That's what the folks in that movie are looking at.

Congress has finally begun to address this. There are 57 bills headed to the House floor right now to address various aspects of the opioid epidemic, everything from treatment to prevention to enforcement. And it remains to be seen exactly what is going to happen and how we're going to find our way out.

Today we're privileged to have three experts on this subject. You have their bios, so I'm not going to -- I'm going to dispense with that. I thought I might be able to ask you guys just to start with an assessment of the epidemic, short, brief. Where have we been? Where are we going?

Vanda?

MS. FELBAB-BROWN: Well, I'll let Keith speak perhaps about the domestic

size of the epidemic. Let me just make a few comments.

It is really one of the worst public health crises in the United States. It's certainly the worst drug epidemic in the United States. And it's very important to keep in mind how the drug epidemic started, including with the bad management of legal prescription opioids and the many failures that went into properly regulating that issue.

The numbers are staggering and we are seeing them in the United States. We are also seeing really bad numbers in Canada, including in some of the places in Canada, such as Vancouver where approaches such as harm reduction strategies are widely used. Keith and I and our colleague, Jon Caulkins, recently had an article in Foreign Affairs that highlights the risk that the opioid epidemic will spread abroad.

There are many dimensions to it. We are already seeing the spread of synthetics abroad, as well as other drugs that, for example, in West Africa addiction related to Tramadol is becoming very strong. And many more dimensions to it can come, part as a result of pharmaceutical companies trying to pursue the same problematic, unethical policies abroad, but also because of the emergence of synthetic illegal narcotics and illegal opioids.

And the crisis in the United States, it's also reshaping global drug markets, global illegal drug markets, and has the potential to radically change relations and power dynamics between criminal groups. We are already seeing some of that in Mexico and perhaps we can talk about that in the conversation.

MR. HUMPHREYS: So for, I don't know, starting 2005 or so, I was saying to audiences this could become as bad as AIDS. And now what I say is it's, in fact, worse than AIDS. With 42,000 registered opioid overdose deaths in the most recent data, but because a lot of coroners don't record the specific drug it's actually about 50,000 for that year, which is worse than the worst year of AIDS.

And overdose deaths are really on the tip of the suffering that's going on. For every person who dies of an overdose there are 30 non-fatal overdoses, meaning the body and the brain are deprived of oxygen. Many people experience lifelong damage from that

even though they live.

And then there are millions of people who are addicted to prescription opioids, to heroin, who are -- even if they're functioning and they don't overdose, their life is very difficult psychologically, ability to hold a job, ability to function in family roles. There's a great deal of suffering involved. So it's really a tragedy, worst public health epidemic of my lifetime.

MR. BERNSTEIN: Pagan?

MS. HARLEMAN: I'm not an expert, although I did live in that world for about two years. What I would say is when we started to make this show it was very important to us to go past the statistics and take a look at personal stories, at intimate stories. And for me, it was very important to look at the families because I feel like it's so devastating on a family and a community level. Because when you have an overdose, you know, it doesn't just affect the one person. It affects everybody around them. And also, in Mexico, you know, it's like growing the drug there, that's that whole community.

So just to broaden out from the opioid epidemic, we also very much felt like this is symptomatic of the failures of the drug war, you know. And that money is put here or here or here and nobody seems to look at the big picture. And so what we saw with our characters in particular is people trying to make rational choices in an irrational world. And as you can see in the last scene, for the parents it's like they don't know how to cope with this.

So we just saw so much helplessness in all forms, you know, in law enforcement. The people in Mexico who are doing what they needed to for their families and with the families we saw a lot of helplessness and not a lot of answers. Although I will say in our series in the last episode we did see how law enforcement is changing a lot, you know, taking more of a social worker approach, trying to take people to treatment. So we did in the course of our filming see some changes, but mostly we saw a lot of helplessness.

MR. BERNSTEIN: There's so much to discuss about this show, but to me probably the most shocking thing was the matter of fact way that the drug cartel leader described what he does there. I mean, this is our business. They could have been mixing

cement in there without the AK-47s. This is all we have, this is all we do. We have to do this to make a living. No thought about what's going on up here, right?

MS. HARLEMAN: I mean, they know that their drugs are going and they know that there's an epidemic in America and that people are dying. But there's a certain amount of compartmentalization, I would say, because they feel like, well, it's people's choice if they take the drugs and if they die.

And there's very little investment in Guerrero. It's one of the poorest provinces. It's one of the most dangerous states. It was actually the most dangerous state in Mexico.

I mean, the growers in particular, they're like, listen, we would grow avocados if we made more money. You know, this is a choice they've made for their families. With him it's a little more complicated, you know. Obviously, there's some other dynamics there.

But, you know, there's an awareness of what's happening and what has happened in America, but as I was saying before to Keith, in Mexico addiction is not prevalent. So it's very fascinating, we filmed over and over again them making it. You know, and I was always worried about my crew because it's like, you know, they're standing there with the masks and, I mean, this stuff is like cancer-causing in all honestly. They're just standing there watching it. But they don't drink, most of the people in the town, they don't take drugs. The -- San Miguel doesn't take any drugs. But you were mentioning that usually at some point it does.

And then in Mexico, really, the drugs are shipped here. They're not taken there.

MS. FELBAB-BROWN: You know, I would point out that that's changing. It's not the case so much yet with opiates, but it certainly became very much the issue with cocaine and some of the key battlegrounds like Ciudad, Juarez, or Tijuana have become highly contested also because of what's *narco nuemos*, what are local distributions for drugs. Part of that is that traffickers inevitably they tend to pay in kind, they tend to pay in drugs for

two reasons: it's far cheaper than paying in cash and it involves the problems of getting to change drugs into cash and dealing with liquidity, but it also creates customers.

So over time addiction tends to rise. And, in fact, one of the key issues for Mexico and Mexican government, Mexican society is to start thinking about what kind of addiction will come, is coming already. It's mostly linked to other issues than an opium poppy and heroin, but that, too, is changing. The big switch that has taken place, of course, is the rise of fentanyl and its potency.

So we are already seeing the suppression of poppy prices in the production area, such as in Guerrero and elsewhere. What that means is that because they are being displaced by fentanyl, so over time the production of heroin there will start flooding to other markets, whether in Mexico or elsewhere.

MR. BERNSTEIN: As we saw in the movie, at least at the street level, users are dealers and dealers are users, right? I mean, this is done to support a habit here in the United States. Is that something you expect will happen in Mexico, as well?

MS. FELBAB-BROWN: You know, indeed, it's a very common phenomenon that people who become addicted usually cannot hold regular jobs unless they come from highly privileged families and have access to money. So the way to support the habit, which becomes devastating and has a grip on the person, is to deal in drugs. Very, very common phenomenon across the world.

MR. HUMPHREYS: Yeah. I think drug dealers have very good Hollywood agents because in the movies they're very competent and impressive and intimidating. But in real life they're more like what you saw in the film, which is people you feel sorry for even though they're doing something destructive.

And there's another slice of the dealing population that is not addicted, but is just making ends meet. So, you know, in a region of the country where middle class jobs have been hollowed out, there are people who do a little dealing on the side. It might be a mom who works at Walmart and doesn't use drugs, but just needs a little extra money; or grandma

who can't quite make the food bill, so she sells a little bit of the OxyContin she's prescribed for pain. And that's a lot of the picture and it's why arresting huge numbers of dealers never amounts to anything. You know, they're very easily replaced, they're low-skill jobs, and there's just, you know, millions of people doing that.

MS. HARLEMAN: But one thing I was going to say that we heard about from law enforcement that we saw is that with this epidemic it really moved into the suburbs. So what you're talking about is Chief Minard, who we shot with in Columbus, the deals happen in Walmart, the deals happen -- you know, whereas before in the heroin epidemic in the '70s and '80s it was inner city. It's moved into the suburbs. It's moved into the small towns. It's moved into, obviously, we did focus on the white population, you know, even though the numbers now are changing, I know, with the African American population here in the America. But it really had changed.

And what he was saying and what we heard in Mexico, too, is that they were like, hey, the money's in the suburbs. And there was a calculated move to move into the suburbs, to move where the money is, to move where the middle class is. And then the painkiller -- I mean, the opioid overprescribing supported that. So like the cartels, in a way, the cartels and the overprescribing and the prescriptions happened together, you know, and have created this. It's been this kind of a thing.

MS. FELBAB-BROWN: That's a very fundamental issue that was raised, and also by Keith, the big difference between the opioid epidemic and its beginning in the over prescription of opioids and the legal change through which they were derived, that for the first time we are really seeing a drug epidemic that is linked to -- the addicted people are not just dealers in the way that they are in cocaine and heroin. They are actually the source of supply, and it showed up in the movie.

How is that? Because they can get vast amounts and amounts of appropriate amounts of opioid pills and then sell them for heroin. So this is really what altered the dynamic so fundamentally, the access to supply was so much larger than anything that we have seen

in illegal markets.

One of the big takeaways is that legal company, legal markets have the capacities, such as in tobacco, to deliver addiction at a far greater rate than the illegal market ever can.

MR. HUMPHREYS: Yeah, it's been interesting watching drug policy for a long time to hear some very prominent people who endorse drug legalization and revisit that in light of the opioid epidemic.

MR. BERNSTEIN: So let's talk about that for a little while. It's taken us a few years to understand we're not going to arrest our way out of this epidemic, but are we going to treat our way out of this epidemic? Are we going to -- you were saying earlier if the health mechanism in America got ahold of this maybe that would work. But you don't necessarily feel so.

MR. HUMPHREYS: No, and I'm a health guy. I mean, that's what I do. I see health -- the role we're in is very similar to an adolescent looking at their parents, and adolescents can tell you how stupid their parents are. When they're parents they're not going to make any mistakes, you just wait. And then they become parents and they realize, boy, being a parent is actually very hard and you do the best you can and you make mistakes and so on.

So in drug policy around the world the cops have been the parent. They've been in the lead and health has been often minimized and pushed to the side. And there's a fantasy among many of us that if we were running things, this would go away. And, you know, it won't. I mean, most obviously because it was doctors who started all this to begin with.

But second, we profile Vancouver in the article, Vanda, Jon, and I, and they have every health services, you know. They have injection rooms, they have heroin substitution, they have needle exchange, they have treatment, they have universal healthcare, and their overdose rate is about the same as West Virginia, which has none of those things.

So there has to be supply control, which is done usually through the law in



addition to health. And it may take -- police, I find, have learned that they can't do this by themselves. I mean, when I worked in the White House and the police came in, they sounded like social workers. They said what we want is more treatment, more treatment, more treatment. They've figured out they can't do it. I don't know that health has done that yet and it may have to take that experience of being handed this problem and realizing, god, it's really hard and we're going to have to all work together on this.

MR. BERNSTEIN: So what does supply control look like?

MR. HUMPHREYS: Well, in the healthcare system, I mean, we have enormous leverage over people, in part because these are all incredibly highly trained people who need their license to work, and there's a whole range of things. I mean, doctors I divide into three groups. There's the biggest group, thank god, are good doctors who do the right thing, and what they need is to be left alone.

Then you have another group, not as big as the first, who are good doctors and they do the wrong thing, and they need education and better clinical practice guidelines and sometimes nudges from the organization they're working. These would be all the primary care doctors who got a lot of misinformation from pharma detailers and then started thinking that you could just prescribe and there'd be no risks.

By the way, an American doctor, average medical school training in pain is seven hours. A veterinarian gets 50. So a huge deficit in training on how to manage pain, all the ways to manage pain without opioids.

And then there's this very small group at the end, thank god a very small group, but are not good doctors. And that's why you have police officers. I mean, there are still people who do absolutely outrageous things who are just essentially drug dealers who have a stethoscope and they can be profoundly destructive.

MR. BERNSTEIN: One doctor can put millions and millions of doses on the street.

MR. HUMPHREYS: Yeah. When I was in the Obama drug office we used to

get a list of who were the top 100 OxyContin prescribers, individuals; 98 of the top 100 were in South Florida, the year I was there.

MS. HARLEMAN: Oh, yeah.

MR. HUMPHREYS: It's not that painful to live in South Florida. It's actually a pretty nice part of the country. (Laughter) And they initiated an epidemic throughout the entire Southeast. People, you know, where I'm from West Virginia, they were going there to get their pills, bringing them back in garbage bags, and selling them. And it's just an absolute nightmare.

MR. BERNSTEIN: Take the Oxy Express down the --

MR. HUMPHREYS: That's what they call it, yeah.

MS. FELBAB-BROWN: You know, we also, however, need to think in the regulation about the pharmaceutical companies, and that's a big issue for the United States and it's a big issue heading abroad. In very large parts of the world pain is severely inappropriately medicated. In many developing countries people do not have any access to painkillers even for excruciating illnesses, such as terminal cancer. And clearly, addressing their pain needs, palliative care, is a humanitarian priority that cannot be neglected, cannot be dismissed.

At the same time, we want to avoid the catastrophic epidemic that the United States has witnessed and that has the potential to move abroad. So how do we do that? In the article we think about various ways to regular pharmaceutical companies, such as, for example, limiting advertising. That's difficult in the United States, although some of the companies have volunteered they will no longer be sending their sales representative to doctors' offices. Under some circumstances we could imagine and we explore in the article, for example, ways to fine pharmaceutical companies, not just a one-time fine, but fine for every overdose that could be linked to the person be initially prescribed painkillers.

We could also think about preventing the regulatory capture that really took place in the United States where agencies responsible for investigating fraud, like Drug

Enforcement Administration, became prohibited by Congress to investigate pharmaceutical companies. That law is still on the books and it needs to be repealed.

And, you know, moving abroad we could imagine other scenarios, such as painkillers being delivered by government agencies to the extent they are present or by the health organization, but not going through private hands or not being sent to patients at home. So you could require, for example, that some sort of clinical worker is sent to administer the medication and regulate doses.

MR. BERNSTEIN: You've had the Controlled Substances Act here in this country for 45 years. There's a lot of money in this. The pharmaceutical companies have found ways around it or ways of turning their head when, you know, millions of pills go into a small town in West Virginia. Do we need to arrest the executives of a pharmaceutical company? I've had a lot of people say to me if we were able to take two or three of these guys out in handcuffs, it would send a message to the entire group.

MR. HUMPHREYS: A point we make in the book -- or in the book, excuse me, I've made our article into a book. I'm going to have heart attack.

MS. FELBAB-BROWN: Coming.

MR. HUMPHREYS: Yes. No, in the article is Purdue Pharma, you know, was convicted in federal court and their three executives were held criminally liable. That company's revenue to this point on OxyContin is \$35 billion. They spent not one night in jail. If you sell one-ten-millionth as much heroin as \$35 billion, you have a mandatory of 5 years. That to me is just shocking and outrageous on both ends of that.

MR. BERNSTEIN: So yes?

MR. HUMPHREYS: Absolutely. Why not? I mean, particularly when they knew what they were doing and, you know --

MS. HARLEMAN: Well, but what do you think about the lawsuits that are starting now with the attorney generals of different states that are suing the pharmaceuticals?

MR. HUMPHREYS: What I am most struck by about those lawsuits is this.

When I go back home to West Virginia, and they read your reporting, Lenny, your terrific reporting on how the Congress basically, you know, covered up for these companies, is that they're an expression of the sense in the country that Washington has utterly failed us. No one's protecting us. Congress is bought off. This is how they would describe it and use those words. And this is the last recourse we have as an individual, as a county, a community, a state. And that's what I see.

What will happen legally? I don't know, I'm not a lawyer. But that's what I think is going on for people.

MR. BERNSTEIN: Are you saying the pain of that giant lawsuit, the suits that have all been consolidated in Ohio, is the way to go? To cause pain, that much financial pain to the pharmaceutical companies?

MR. HUMPHREYS: Well, ideally -- yeah, ideally it's not just financial pain, it's also a new regulatory environment, which as I understand from the judge is the goal.

MR. BERNSTEIN: Right.

MR. HUMPHREYS: So if it's just a check, the check will be written. And, you know, the Purdue fine was something like \$600 million, but if you make 35 billion in revenue, eh, cost of doing business. So something more enduring that says, you know, we will not tax subsidize advertising anymore.

MS. HARLEMAN: But it --

MR. HUMPHREYS: Just let me finish, please.

MS. HARLEMAN: Sure.

MR. HUMPHREYS: But also then that there are ongoing penalties if the problem continues.

MS. HARLEMAN: But I just want to say to me it's part and parcel somewhat of what's going on with this administration, but also the way this country approaches these things where we let corporations do whatever they want, they never seem to go to prison, and we demonize completely people in Mexico and in other places who are trying to survive. And

admittedly, some of them are committing crimes, but it's like billions of dollars, 60,000 people have been dying a year, many of them as a result of what these companies are doing, and none of them have been held accountable. And yet, you know, you have a president going on raging about the people coming from other countries.

And so to me there's other dynamics going on there, as well, where it's like they're just not holding a certain group accountable. And admittedly, in our film we don't highlight as much -- it was not within our capacity to do investigative reporting of your like. So it looks like, oh, Mexico is sending drugs to America and Americans are dying when really there's this whole, as you said, 22-year phenomenon that's been going on.

But I also just want to say I was very moved and frustrated by just the lack of a national approach to treatment. You know, family after family after family, when we filmed with the drug czar which didn't end up in our show, would say what is going on with these treatment centers. They would put a second on their house, they would put thousands of dollars -- you know, if you're a parent you will do anything to save your child. I mean, so what's heartbreaking is parents are natural co-dependents. You know, the kid comes, I need money, you know, and the parents just keep giving it. They don't want to give up on their child, but then they end up feeding the addiction. And so they would put all this money into these treatment centers and some of them would be Al-Anon based. You know, some of them would be medically assisted treatment base. But there was no national database as a parent where you could say where do I go? What will actually work?

And some of these kids had been, you know, into rehab five, six, seven, eight times. And then you also have the fact that all these insurance companies, many of them are paying thousands of dollars, so much money -- I mean, you probably know -- billions of dollars are spent on treatment and nobody can really give us proper data on what's working.

And I think most doctors agree medically assisted treatment is what's necessary with heroin and opioid, but just to see the lack of -- to see so many people dying, to see such an incredible epidemic, an epidemic this generation that we've never seen before.

And a lack of a cohesive, coherent approach from the medical community was shocking to me.

MR. BERNSTEIN: I'm glad you brought that up because, you know, right now the mantra is expand treatment, particularly medically assisted treatment. And I've written it myself a million times. That's what works best. It works better than 12-step, it works better than anything else.

But in your film we saw what treatment looked like, right? It was mom handing out little films of buprenorphine and a couple of pills. And what happened? Skyler went off and got high again.

So in addition to us not having enough, do we have the right forms of treatment?

MR. HUMPHREYS: Yeah, that was a very powerful moment for me because I get calls from Skyler's mom every week. Not literally, but, you know, people like that. And it's always -- my heart sinks because the person who needs to call isn't calling. And so the moment when she said my number one priority is your sobriety or your recovery and he says my number one priority is my freedom that was the telling moment.

And I am all for treatment. I've spent a whole bunch of my career on it. We should definitely expand treatment, make it more accessible, but it has to also deal realistically with what it's like to be addicted is that many people just do not want to get into treatment. His goal is to use more heroin at the moment. And so it's not -- when I hear these things sometimes, very simply so-and-so broke into someone's house, stole something for drugs, let's give them treatment and not jail, that implies they go to treatment, and they often will not, and that's very difficult.

That said, we are still failing the people who are willing to go to treatment because the treatment system is so uneven in quality. There are terrific programs and there are terrible programs. And it's what happens when what's meant to be a healthcare service grows up outside the healthcare system. Addiction treatment is not like pediatrics or

cardiology or oncology that was birthed within. It was basically birthed within the criminal justice system, social welfare, you know, like Salvation Army, and peer self-help groups. And all of them help some people, but none of them are healthcare. None of them are subject to the constraints we are, the regulations, the requirements, the patient protections, and that sort of thing.

And so you have this Wild West of incredible variability in quality and also some programs that are just, frankly, abusive and they treat people that you could never do that. If you did that at the hospital you'd be shut down in a second.

MS. FELBAB-BROWN: And I have one more comment. As devastating as the film was and what Keith is describing, in the opiates case the knowledge as to what works in treatment, including substitutions, including a drug such a buprenorphine, is really not available for many other forms of addiction. So take, for example, meth addiction, really the epidemic in East Asia so far where we don't know what works in treatment. So, you know, what abusive conditions are here, treatment in East Asia, in place like the Philippines where President Duterte has declared a war on drugs which is essentially state-sanctioned murder, the treatment essentially involves putting people into detention facilities where they go cold turkey with whatever effects on their health.

But we don't have good treatment for something like meth addiction.

MR. BERNSTEIN: So are we condemned to pass out naloxone and open supervised injection sites and do needle exchanges without a lot of progress?

MR. HUMPHREYS: We have to keep track of two things at the same time: people who are currently addicted and all the people who might be addicted in the future. So the most important thing, while we are at this point prescribing per capita eight times what Europe prescribes, is we need to turn that tap down and get back to where we were before. We still need opioids. They are terrific medications.

And by the way, I worked in hospice for almost a decade. I am a big believer in adequate pain management.

MR. BERNSTEIN: And prescriptions are down a tiny bit, right?

MR. HUMPHREYS: They're down a tiny bit, but we have to drop about 80 percent to get where -- you know, what the world typically does. In countries like France and Italy, which have comparable levels of pain to us, prescribe a bare fraction of the opioids. So that, on the prevention side, we need to do that.

MR. BERNSTEIN: That keeps us from creating the next generation.

MR. HUMPHREYS: Creating new, yes. Yes, that's right. And then you treat, or keep alive if you can't treat, those people who are currently addicted. And sometimes that will involve very sad, horrible things to watch. And I've had to -- you know, been close to some of these families where someone gets naloxone and overdoses and the next day it happens again and again, and they go into treatment and they come out. It's very terrifying. But what else can you do?

MR. BERNSTEIN: Right.

MR. HUMPHREYS: I mean, if you have a good society. And I would point out, by the way, if somebody has a heart attack and they've already been hit by the paddles, you know, a week before, we still try to save them again. So all we're really doing is treating people with drug problems the same way we treat anyone else who has a health problem.

MR. BERNSTEIN: Vanda, we haven't said much about fentanyl. What are the challenges that we face keeping fentanyl out of this country, out of the heroin supply? I'm not sure how much people know about how easy it is to smuggle heroin -- I'm sorry, fentanyl into this country and why that is and how it gets mixed into the drug supply. Could you talk about that?

MS. FELBAB-BROWN: Sure. And I would start let me by suggesting that the first challenge is really keeping fentanyl and other analogs, synthetic analogs, out of use. And that's because these drugs are so much more potent, 100 times heroin. And other analogs, like carfentanil, multiple times of that.

So what it means is that a very tiny amount can very easily lead to overdose.



And even users who are experienced users find it often very hard to correctly mix or correctly cut the dose to avoid overdose, particularly if they do not actually know the percentage of fentanyl with respect to either heroin in which it is mixed or increasingly fentanyl is mixed into cocaine. That's also driving the death rate and overdose regarding cocaine in the United States.

MR. BERNSTEIN: So it's a crapshoot every time you go out and buy some? You don't have any idea what the proportions are?

MS. FELBAB-BROWN: Well, and so, you know, one possibility that has been tested in Europe and places like the Netherlands and it's expanding in the United States is having free, accessible, non-threatening drug testing labs where users could go and have their product tested.

Now, this sounds good and it has successes in a prior version with other synthetic drugs, such as meth and Ecstasy and various other synthetic drugs. In the Netherlands what is so distressing about the current experimentation with that is that users are actually disappointed when they don't find fentanyl in whatever they bought because they believe they are not getting enough value for their money. So, you know, very distressingly, users are actually self-selecting now toward fentanyl being part of the compound.

So to go to your question then, why is it such a problem to keep it out of the country? Because of the ratio of potency to weight, which makes it so different than certainly drugs like marijuana, which made the big difference between marijuana and cocaine. And now we have again an order of magnitude change with potency-to-weight ratio for synthetic drugs, such as fentanyl, carfentanil, and other analogs.

So what that means is that it's very easy to ship a sufficient supply to market by using traditional mail services, traditional delivery services. You can essentially dispense with the problem that suppliers of drugs like heroin or cocaine have from abroad. They cannot simply ship enough packages of cocaine through the post. Sometimes they do, but it's difficult to do that, right?

MR. BERNSTEIN: It's bulky.

MS. FELBAB-BROWN: It's bulky, it's detectable. But as the potency-to-weight ratio makes it much more feasible for synthetic drugs.

MS. HARLEMAN: I was just going to say anecdotally what we saw -- because fentanyl appears more and more in the series. In the second episode there's an overdose death and they're researching it and you hear that fentanyl -- as we were filming the police would say we wish we were getting heroin. You know, they keep finding fentanyl everywhere.

But while we were filming they were starting to target FedEx. This is Senator Portman in Ohio was working on it. They were starting to target FedEx and UPS sites. So as packages would come in -- because what people do is they go on the dark web, do-do do-do do, look up the chemicals, buy it from China, and it shows up and they mix it, you know. And they mix it haphazardly and so you might get a clean one and you get one with fentanyl.

But at any rate, so they were starting to, in UPS and FedEx, scan boxes from China. And then the Homeland Security would follow the box as it was going to be delivered and then they would bust the person in the trailer. So they're coming up with ways to interfere with it, but now places like Mexico are also buying fentanyl and mixing it into their heroin.

And what we would hear from the addicts is they would be like I want the good stuff. So they would want the stuff with fentanyl in it because they want the high that's almost as close to death as possible.

MR. HUMPHREYS: That's what I was going to say. You would see people running toward the thing that would kill, that is most likely to kill them.

MS. HARLEMAN: I mean, what they usually do is they shoot up, they try to not shoot up alone, and they shoot up with, you know, the stuff that they all carry.

MR. BERNSTEIN: Naloxone.

MS. HARLEMAN: Yeah, they all carry naloxone. And the dealers would say, you know, so like the idea that -- I mean, because fentanyl, if morphine's a 1 and heroin's a 2, fentanyl is a 50. Right? So it's very, very potent.

From what we heard when we filmed (inaudible) is they're coming up with ways, different law enforcement's coming up with different ways to battle it, but you have a high demand for it, so it's hard. It's hard to battle.

MR. BERNSTEIN: So, Vanda, if I went on the Internet right now, how long would it take me to order fentanyl and get it here in an envelope or something that would be not suspected by the authorities?

MS. FELBAB-BROWN: Well, depending on your skills there will be variation in time. You know, clearly, in the United States there is now focus on fentanyl, and most users and most dealers for the fentanyl just not go for fentanyl. You will see various code names for it.

What is happening with the dark web and for that method with very many commodities, not simply fentanyl, is, of course, that lots of that is moving on to private social platforms that are just much more difficult to monitor.

MR. BERNSTEIN: To monitor.

MS. FELBAB-BROWN: But, you know, there are very many potential sources of supply. Right? So a lot of synthetic opioids are coming from China. Many are coming from India. And potentially you can imagine very different sources of supply: Nigeria, South Africa, Indonesia, very, very many sources in a way that's fundamentally different than in plant-based drugs where you require substantial territory that is visible where the state authorities have limited access to.

MR. BERNSTEIN: So that's truly terrifying. If I don't need land to create illegal drugs, what I need is a lab and a basement, so that changes the whole landscape. Right, Keith?

MR. HUMPHREYS: Absolutely. I mean, we give a lot of attention to that in the paper. It changes things for enforcement. I think actually crop eradication has mostly been pretty hopeless anyway, but nonetheless, if you were minded to do that, what difference would it make if it's not coming from plants? That has a good effect and you no longer

alienate domestic populations who see that as their livelihood; where in a place like Afghanistan don't drive them into the hands of the Taliban either because they need the money or they just are so angry that you've starved their family.

It makes it very difficult to suppress for very long because people can just bounce a lab from here to there. You don't need the kind of labor anymore. It's extremely hard to monitor compliance. So with these other countries, we can -- aerially you can tell about grows, right, over mountainsides. It's a lot harder to say are you sure that there's no fentanyl lab in China somewhere? It's a very easy thing to hide. So it changes that equation, as well.

And it is kind of frightening. I mean, it could be where drugs end up, where drug policy ends up, is we really in the age of the Internet and cryptocurrencies and all that, we can't stop any more people getting drugs, so the game will be almost entirely about the persuading people not to use them.

MR. BERNSTEIN: Like the folks who produce them Guerrero and never touch their own supply.

MS. FELBAB-BROWN: Well, never touch their own supply is also a question, right? I mean, you were pointing out to me they are not wearing globes. And one issue in Afghanistan where a very substantial portion of the country's GDP is linked to the opium poppy economy, is that you see the same scraping method, but it's often conducted. Because it's so labor-intensive it provides employment to very vast segments of population, millions of people. And it also employs women. It's often the only area that is accessible to women to earn money for their households.

And it also often involves small children, who are scraping the resin. And they do it with just wooden scrapers that, of course, leave the sticky resin on their fingers, which they frequently lick because it's sticky. And so you end up with, in Afghanistan, with very vast addiction rates where often the potency, the level which children are exposed to, is what would kill a heroin addict in the United States because they have for so many years been accustomed to being around not even heroin, but just the opium poppy resin.

MR. BERNSTEIN: Wow, that's incredible. What does persuasion look like? Well, before we get there, one last question about China. China cracks down on a lot of things it doesn't like. Why can't it stop fentanyl or does it not want to?

MS. FELBAB-BROWN: Well, the Obama administration engaged very extensively with China and got China to schedule fentanyl and four other analogs as prohibited substances or scheduled substances. The problem with synthetics is how they get scheduled.

Often in the United States the scheduling is for a particular formula, a particular chemical formula. That, however, means that if you are a chemist you can slightly alter the formula and the drug will no longer be illegal. So you have many, many analogs of drugs. So China keeps scheduling because of its own interest or under U.S. pressures, but new analogs are being made.

Britain has tried to resolve that problem and there are other countries that are experimenting with this by saying that any drug that acts on particular brain receptors would be automatically scheduled regardless of the formula. The problem with that, however, is that how do you know that those drugs will not have medical uses? How do you guarantee that you simply don't overschedule drugs? And then you prevent very important medical use that can later be discovered, such as with post-traumatic stress disorder where there is experimentation with LSD that is actually showing that that might be some of the most helpful way to, for example, help traumatized soldiers in the United States, traumatized veterans, traumatized Foreign Service officers.

So there are real difficulties with scheduling and how do you go about scheduling the synthetic drugs present at levels? The difficulties there are far greater than in plant-based drugs.

MR. BERNSTEIN: But you still need the cooperation of the government, right, no matter?

MS. FELBAB-BROWN: Well, you need the cooperation of the government,

but that's another important issue is that if only the labs were always illegal we would have a limited problem. We see the same phenomenon in, for example, wildlife trafficking on which I work intensely on. The problem is that you often have a legal facility, in the case of wildlife trafficking that's licensed to breed reptiles, for example, or in the case of drugs that is a license to produce drugs for good uses, for real patients, but yet within that facility there is an illegal diversion or there is an illegal production of something that's scheduled.

So it's not merely -- if the problem were only of the lab in the basement of Brookings where someone is illegally cooking fentanyl, the problem would be very easy.

MR. HUMPHREYS: Yeah, and there's also pride issues involved. I mean, drugs are in the category of things that nations feel easily humiliated and bruised about when pointed out by other nations that they have a role in it. And so it takes very careful, respectful diplomacy running longer than 140 characters. (Laughter)

MR. BERNSTEIN: So we got people to change their behavior with cigarettes by throwing the full weight of the public health system against that. Cigarette smoking is way down. We got people to change their behavior with HIV by public messaging in and public health. Is that doable with drugs? We're talking about a brain chemistry issue here.

MR. HUMPHREYS: Well, yeah, and also let's be candid about what we did with tobacco. We're not smoking in this room. Middle class people, upper class people, educated people, but poor people still smoke at very high rates. And when you go into poor countries smoking is exploding.

So we seem able to -- the more better off population, be able to persuade them away from these things, educate, norms change, what's acceptable changes, and so on. But, you know, a lot of that ends up actually maximizing other forces pushing towards inequality and so you see addiction much more heavily among poor people.

Seeing that with cannabis. I mean, 90 percent of legal cannabis sales -- not 90, 85 percent are to people who didn't graduate college. So it's becoming like that.

And it may, therefore, require some broader interventions. Economic

interventions aren't necessarily attached to drugs to give people alternatives, both to the economics of the drug trade, but also the rewards that may be appealing; if you think of it as a brain, it's all competition, other rewarding things that would compete with the short-term rewards of drugs.

MR. BERNSTEIN: Pagan, did you see the Skyler's of the world being talked out of using drugs?

MS. HARLEMAN: Well, what I was going to say, what I heard from Chief Minard, so in Columbus they started a program called Heroin Overdose Prevention and Education. And so the police had a unit that would go out and do talks at schools. And then they would go with Skylers and they would drive them to treatment. They would reach out within 48 hours to anybody who had overdosed in the area and interface with them and tell them what was out there and drive them to treatment. So it was a great program and so we sort of profiled that in the fifth episode.

But the chief was also telling me that they were starting to think that maybe drug prevention and education needs to start around five, and that's something I'd heard before. And I have two five-year-olds, so I paid attention. And he said, you know, kids when they're given medicine, it shouldn't taste like candy. It shouldn't look good. He said, you know, maybe there's a whole -- and I guess there's a lot of literature around this, they were just talking about how to really make prevention work.

Because what I saw with the Skylers, what I was mentioning to him before, is we profiled a number of addicts. It was pretty hard to do. It's hard to be around heroin addicts. It's hard to be around somebody's who's being so destructive to themselves. It was hard on my crew, it was hard on all of us. But a lot of siblings and a number of siblings, actually the woman in the traffic stop overdosed and died a couple months after we filmed her, and we filmed a number of kids and almost all of them had a sibling who was addicted, as well.

We didn't see what you wrote about a lot in the paper where -- but we heard

about it, you know, mothers using with daughters, using with sons, whole families using it together. But the point of entry for many people is their family. And that was something that I didn't quite realize because I was thinking it was still people at school.

So how prevention and education is supposed to work, I really don't know because in the second episode we follow a young woman who had died and she'd been a perfect student at school. Her brother was the problem kid. Got married, nothing. And then some neighbors moved in and they were shooting up and one day she went over and within six months she was on the street, she was hooking, you know, I mean she was prostituting herself, and she ended up dying. And it's a mysterious thing this addiction. It's very, very powerful. It's very, very powerful.

The amount of times people go to rehab and still, I just don't know. I don't know how we're going to fight this. I mean, I'm not an expert, but from what I see it's so powerful.

MR. BERNSTEIN: We have about 15 minutes for questions from you all. I think there are mics somewhere. If I could ask your indulgence that you pose questions rather than long preambles or speeches to us. We really want to hear from these three folks, so take it away.

MR. RAMOSAMI: All right, thank you all for your comments. My name is Dave Ramosami. I have a consulting company. I work in agriculture. My question is maybe to Professor Keith. And I want to raise the issue of nutrition and psychiatry and, you know, connecting to the drug crisis.

You know, in the U.S. I feel the gateway drug to powerful drugs is processed foods and sugary foods because sugary foods leaks nutrients from the body, especially renal magnesium and calcium. And, you know, this causes anxiety, depression, and, you know, various other pathologies. And your colleague at Stanford, Professor Sapolsky, has talked about how stress and chronic stress and social isolation, you know, leads to drug --

MR. BERNSTEIN: Sir, what's your question?



SPEAKER: So my question is where's, you know -- to your point, also, the public health aspect or launching of war or tobacco kind of public health message? Where do you see the role of nutrition and nutritive psychotherapy to prevent a lot of these drug pathologies? Thank you.

MR. HUMPHREYS: Do you want to answer question by question or take a bunch of questions?

MR. BERNSTEIN: No, no, go ahead.

MR. HUMPHREYS: Okay. And I think good nutrition, good health is going to have numerous benefits, so we should be for it, even if it had no impact on addiction at all. Many people definitely have an environment that is saturated, no pun intended, with salts, sugars, fatty foods. We love these evolutionarily for very good reasons, but in excess they kill us. It's very similar to the addictive substances, so I think there can be a place for general health as one thing that would help people avoid addiction.

I think the more general point you made about stress, about Robert's work, is definitely true. You know, drugs are rewarding anyway, you know, like heroin is rewarding. It bind to a receptor, it gives us euphoria. But if you're in a constant state of unease and anxiety for whatever reason, you could imagine you get an extra bout of relief from that. So things that give people a sense of peace, comfort without that may make them less prone to use drugs.

MS. FELBAB-BROWN: And I had one comment. Where we are starting to see emerging epidemics, I mentioned Tramadol in West Africa, we're seeing that in the Middle East, we're seeing that across Africa. It's a big, silent crisis happening because you have enormously traumatized populations as a result of wars in places like Syria and places like Iraq, in Nigeria, in Somalia, without any access to any psychotherapy, without often any access to any kind of psychological support for people that have gone through excruciating brutally with rapes, massacres, losses of their family members, really on an unprecedented scale; with famine situations where mothers have to decide which child to leave behind to

starve to death.

So enormous trauma across, you know, hundreds of thousands of people, yet close to no or very limited psychosocial support. And consequently, enormously ripe situations of poor borders, poor controls, deficient state of a corrupt, problematic state to start with, enormous potential already happening with new addictions in places and risky settings.

MR. BERNSTEIN: Right over here, the gentleman. Well, either one, it doesn't matter. Go ahead.

MR. WINTERS: Steve Winters, independent consultant. Actually down in Maryland, at Crownsville State Hospital, there are certain detainees, you know, held because of being convicted of drug offenses. And as part of their detention there at the hospital they're required to participate in Nar-Anon meetings, which are actually open to the public, and also the family members are encouraged to come to those.

Now, since they're essentially required to do that, do you see that as a positive element or would you be in favor of such programs?

MR. HUMPHREYS: I don't know that specific program, but just say generally a good way to use the leverage of the court is for therapeutic means. We see this, we do this, and there is a whole field of therapeutic jurisprudence, for example, people who are seriously mentally ill, people who are addicted, and so on. And it can be done well, it can be done badly, it has been done badly. But there's no reason that motivations all have to be pure and from the heart, and there are of plenty of people, I can tell you, who would say that it was pressure from a court or from their family or from a worker that made them decide to change when they initially just wanted to keep using.

MR. BERNSTEIN: How about the gentleman right behind you?

SPEAKER: Hi. Growing up in the Midwest, I'm from Minneapolis and my family all comes from Iowa, so I'm not stranger to opioids addictions. I can name off five different people who have dealt with that issue. And my grandmother's own death almost happened a year earlier because when she was on hospice, she was given these pills. And

thank god my mom intervened; she's a physician and was able to get her off of that.

My question, and I don't want to be that 20-year-old who always asks about medicinal marijuana, but is there any way that that kind of pain management might be more effective than opioids? I personally don't know and I'm just curious if it would.

MR. HUMPHREYS: So there are 200 different non-opioid medications that can have at least some applications for pain relief. So we definitely need to break the assumption that maybe if it's pain, then I shall prescribe an opiate. There are also plenty of things that aren't pharmacological at all. I mean, sometimes the best thing for a really bad back is to do some walking, do some yoga, strengthen your abdominal muscles.

Whether the cannabinoid systems specifically, which is evolutionarily one of the oldest systems in our body and goes throughout the periphery, you know, has been implicated in pain relief. To me this is why we do science, right? We should be taking anything we can get out of that plant and studying it. And it's been very hard because the regulations are --I mean, if I want to research pot, I have to fill out a stack of paper like that. But if I want to smoke it, I can just walk across the street and buy it. That's kind of strange, but that's the situation. So we should study that.

It will not be, though, a huge blockbuster. There will be people who benefit enormously. But because we already have all these other medications that work pretty well for pain, I'm not expecting it to change the whole world, but there'll probably be some people that'll be helped and they should be helped.

MR. BERNSTEIN: But Keith, my insurance covers the opioid pills.

MR. HUMPHREYS: Mm-hmm.

MR. BERNSTEIN: And I can't get coverage for the physical therapy, the acupuncture, the yoga.

MR. HUMPHREYS: That is often a problem. And the parallel one is that if you want to get on buprenorphine to treat your addiction, it's often harder for the doctor to put you on it. And this is something the psychiatrists in our department rant about, and I don't

blame them, that they have a patient who wants to enter treatment, they want to get them on buprenorphine, and they have to fight with the insurance where literally they could hand them a bottle of OxyContin and there would be no questions asked.

So, yeah, you want to design health and insurance to richly reimburse the things you want and not the things that you don't and we haven't done that. So yeah, that's hugely important topic.

MR. BERNSTEIN: Very quickly, Pagan, did you see Skyler's folks going broke trying to keep him with medication?

MS. HARLEMAN: Yeah. I mean, most of the parents we met had spent all their savings trying to help their kids. Both of her sons right now are in treatment and I'm not sure if that's still covered on their insurance or how they're doing it.

MR. BERNSTEIN: So they're just paying cash?

MS. HARLEMAN: Yeah, I think so.

MS. FELBAB-BROWN: And, of course, there is the mental health dimension that Keith fought very hard when he was in the government that became part of Obamacare, where many people who are addicted are people with mental problems not as difficult as mental illness, and yet often their coverage is minimal to nonexistent.

MR. BERNSTEIN: The gentleman over there. We have one mic, huh? Two? Oh, sorry.

SPEAKER: So I know that there aren't many places that have been immune to this epidemic, but also that states haven't been hit equally. And I'm curious, I know that none of you have a background in epidemiology, but I'm curious about whether, you know, when we look at states like Nebraska that haven't really had the same kind of issues as West Virginia or New Hampshire, whether you see any regulations in particular that have acted as protective factors.

MR. BERNSTEIN: Good question.

MR. HUMPHREYS: That is a good question. I mean, part of it is luck. You

know, California, we have not had fentanyl so much because we are supplied with black tar heroin, which is harder to blend fentanyl in, and we have not been hit as hard as the Midwest which is supplied differently. So some of that is entirely outside the realm of policy.

We do know from Christa Room's work that exposure, just the volume of prescribing, predicts having a problem no matter where you are. So West Virginia has a very high overdose rate. It also had an incredibly high prescribing rate, so people getting exposed over and over again.

And then second, areas that are poor and have poor health infrastructure are suffering more. It's not that people in the rural areas, you know, are more likely to use an opioid than someone who's living in a city, but their access to treatment is way less, they're likely to have naloxone, having an ambulance that can even get to them in an hour is way less. So there's a lot of added harm that comes to them because of those reasons.

SPEAKER: Just a quick follow up because it's curious to me because you see a state like Massachusetts, it's actually been -- you know, has been declared the highest rate, and yet their infrastructure, you know, typically known as, you know, one of the pioneers. And so something's not adding up or we don't have the answers.

MR. HUMPHREYS: Yeah, if I made it sound simple, I apologize. (Laughter)

MR. BERNSTEIN: Let's try to get one or two more in there.

MS. MIYAZI: My name is Anna Miyazi. I'm an internal medicine resident physician practicing in Macon, Georgia. I care a lot about my patients and I also have a passion for research. So my question is for the panel what do you recommend in the medical community that we need to investigate for the current landscape of the opioid crisis?

MR. HUMPHREYS: That's a good one and there's lots to be done. Basic epidemiology, we don't know how many people use heroin in this country. I mean, we have no idea. We have the government call people up at home and ask do you use heroin? And people say no, so I guess there's no problem. (Laughter) But that's something we could find out through better clinical epidemiology. So in the emergency room, for example, where

people get, as you would know, you know, get screened, aggregating that data.

Working with coroners. The data we have is three years old, so we're perpetually saying, well, did this policy work? Well, I don't know, I won't get the data for like five years. So in a world where -- if I, you know, called Jeff Bezos up and I said how many blue washing machines do you have, he could tell me right now where they are and which ones are broken and who has them and who's going to buy them instantly. Why can we not tell whether someone is dead, you know, without an interval of three years?

So that could be something that it could be a partnership between those physicians who work in coroners' offices, working with CDC, and maybe working with private companies so that it is instantly known when someone has died of an overdose and exactly what drugs they died of. And we would have a dashboard and every state would know this is working, that's not working, instead of this ridiculous backward-looking thing.

And then the last thing, I think the most important thing doctors can do is help other doctors become better prescribers. Because I never wanted, when I was in the government, I never wanted to intervene with doctors. I mean, that was not why I came to town, but somebody has to. And the best way for that to happen is doctor-to-doctor conversation and change because doctors listen to other doctors, as you know, in the way they won't listen to people on the other side. So anything you can do about that I think is a great way to prevent people from getting in the situation in the first place.

MR. BERNSTEIN: Last one.

SPEAKER: I feel honored, thank you. I wrote a long story here, but I'll be brief. I'm curious about physicians that if there's a way that physicians and pharmacies are linking patient files in terms of regulation, if we're planning that in the future.

I lost a dear friend to the epidemic who had the resources to go across the nation through work travel and find the drugs she needed. So can you tell me about that?

MR. HUMPHREYS: So, yeah, there's been a lot of expansion of what's called prescription drug monitoring. Some of it is very good and sophisticated and up-to-date and

some of it is dreadful and slow and nearly useless and drives doctors insane when they try to access it. But that is something that could be helpful for this problem.

But also more general problems of coordination of care. You know, you don't know what other person's prescribing. I mean, a classic example would be somebody is seeing a psychiatrist from an anxiety disorder. They're taking a benzodiazepine, which is a tranquilizer. Then they really get hurt. Say they fall down a flight of stairs and their primary care doctor is going to give them, you know, four days of Vicodin, but doesn't know that that person's on a benzodiazepine and those two drugs together greatly increase their risk of dying. Well, that's a big data problem that is eminently solvable if we monitor all prescriptions and then also require doctors to check, as some states are now doing, before they write that controlled substance thing. They're supposed to look and say, wait a minute, what else is this person taking? And could this prescription actually harm them instead of help them?

MR. BERNSTEIN: I have to cut it off now, I'm sorry. We're at the end. I want to thank everybody for showing up. I really want to thank our panelists who were just terrific.

MR. HUMPHREYS: Thank you, Lenny. (Applause)

MR. BERNSTEIN: If you'd like to hear this conversation on a podcast you can search, let's see, what it, "Brookings podcasts" on your podcast app is. If you'd like to view *The Trade*, you can go to [show.com/thetrade](http://show.com/thetrade). And these things are written down in your handouts.

And the last thing is that we have another event, and so if you could all please pick up around your chairs, we would appreciate it. Thanks very much.

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