Combating the Opioid Epidemic: Finding Alternatives in Pain Management

Discussion

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- John Walters, Chief Operating Officer, Hudson Institute
- David W. Murray, Senior Fellow, Hudson Institute
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July 25th, 2018

TRANSCRIPT

Please note: This transcript is based off a recording and mistranslations may appear in text. The names of participants in the Audience Q&A have been removed. A video of the event is available: https://www.hudson.org/events/1578-combating-the-opioid-epidemic-finding-alternatives-in-pain-management72018
JOHN WALTERS: Welcome to Hudson Institute, the Betsy and Wally Stern Policy Center. My name is John Walters. I'm chief operating officer. I'm also co-director of the Hudson Center on Substance Abuse Policy Research. I want to thank everybody for joining us, both here and those who are joining us online, as this is being streamed. We are delighted to be offering today's program that will look at some of the background issues to probably the most deadly killer in America today, and that is the opioid epidemic, in terms of preventable loss of life and harm to our citizens.

We're delighted to begin this program with remarks by Senator Bill Cassidy from Louisiana. I want to welcome him here, and thank him sincerely for all he's done on this issue and continues to do in the United States Senate. He is a physician who, for nearly three decades, provided care for uninsured and underinsured patients in Louisiana's charitable hospital system. Senator Cassidy attended Louisiana State University as an undergraduate and medical school. In 1990, he joined the LSU medical school teaching students and residents. In 2006, he was elected to the Louisiana State Senate. In 2008, he was elected to the United States House of Representatives. He represented Louisiana's 6th Congressional District. In 2014, he was elected to the United States Senate. He serves on the Health, Education, Labor and Pensions – the HELP committee. He also serves on the Energy and Natural Resources, Finance, Veterans Affairs, and Joint Economic committees. He has a long record of service to the people of Louisiana and to this country. It's also important to note, at this time, he has not only a prominent voice in health care reform in Washington, but he is a person who has worked in Congress across the lines, and worked for Republicans and Democrats to get things done in seeking effective solutions to health care and to the opioid scourge. So I couldn't be more delighted to welcome Senator Cassidy here today.

(APPLAUSE)

BILL CASSIDY: Thank you, John. You sometimes have a little bit of a shock when you come in to speak. I suddenly realize that my talk is far broader than the headline. So if you say, "Well, this is more than what the headline of the event is," chalk it up to bad staff work. Where are you, Jeff? You're busted!

We all know the problem. We wouldn't be here were it not for our common knowledge, but I'll just say a few things to set the context, so that we know we are all there. I go around Louisiana, but also around the country, and you just hear one heartbreaking story after another. The family of the 17-year-old who gets out of a treatment program, and the day he gets out of a two-week inpatient treatment program – the day he gets out – the pusher finds him, gives him drugs, and he dies. And the family's asking, "What could they have done? Was two weeks adequate?" All the questions then bubble up. And unfortunately, as I said, we all in this room know of such a story. 63,000 people in 2016 died from a drug overdose, a 21-percent increase from previous year. Everything is increasing.

So how do we address this? One thing that my staff – and we had a great meeting with John yesterday – call it is an all-of-government response, or, more prosaically, I suppose, a "safer families, healthier communities" strategy. Now, "safer families, healthy communities." What does that mean? It's a nice tagline, but what does it mean? And starting with my meeting with John and several other meetings that went along with everything we've been talking about, not least of which is speaking to families back home, like the family of the 17-year-old whom I described. So some things that we have thought about – and I will again shamelessly steal from the three meetings I had yesterday, because they were all great. But as John and I were speaking, he pointed out that CDC does not currently do epidemiological work on pain, nor does it do real-time analysis of where the overdoses are occurring. Not just deaths, because that's an end, but, say, ER visits. Why is that important? I'm a gastroenterologist, and so I'm about to describe – as you might guess, since it involves feces – is of great interest to me. If you get an outbreak of hepatitis A, oftentimes that will be the result of contaminated strawberries. And let me just trace how CDC would work when it comes to a hepatitis A outbreak. All of the sudden, you notice that there is a pop up of hep A in Portland, in Shreveport, Louisiana, in Detroit, Michigan and in Portland, Maine. And CDC will go in, and they will do typing, and find out that, although these areas are quite different from each other geographically, the type of hepatitis A is common in all places. Well, why would strawberries – and hep A comes from fecal contamination of food – why would strawberries be giving you this footprint in different places? And they will trace it back to a shipment of strawberries from a particular field in Mexico, where the worker defecated in the field, and subsequently contaminated the strawberries. The strawberries are flash-frozen without being cleansed, and so when you drink your daiquiri, you're drinking something a little extra. Now, that's all great work by CDC that allows them to go to that field, quarantine that field, and put in new measures of sanitation for that food processor.

Let's think about how we could do that with drugs. We see an outbreak of overdoses related to fentanyl scattered across the country. Someone goes in – CDC or DEA or someone – and does a fingerprint, and understands that this particular fentanyl is chemically identical. Well, then, how did it get there? At McAllen, Texas, Laredo, Brownsville, Los Nochis (ph) – all these places along the border, they are confiscating drugs. And you might be doing a fingerprint – a chemical fingerprint – of the drugs being confiscated and you realize that all these different places came through one place and then spread across the nation: you now know the distribution network. Well, then they have a manifest on these trucks going through: you now know where they come from. And perhaps you can trace that manifest back to the field in which the poppy was grown, or the chemical was brewed, and that allows DEA to come and focus their efforts. Once DEA focuses its efforts, then FinCEN, which is our Treasury
Department organization which looks at trade-based money laundering, can focus their trade-based money laundering analysis – in cooperation with the government of Mexico – on this region, as opposed to the entire nation.

This is a way to have an all-of-government response, but it's not the only way. What is another way to have an all-of-government response?

Again, I'm shamelessly stealing from another conversation I've had recently with a pain physician. She says, in her practice, although Medicare does not pay for it, when an elderly person comes in with a broken hip, they will do ultrasound-guided nerve blockage. And that ultrasound-guided nerve blockage eliminates the need for opioids. They may give a little bit of fentanyl at the outset before the block is in, but once the block is in, this incredibly painful condition is adequately treated. Medicare does not pay for ultrasound-guided pain blocks. If Medicare put forward a payment policy, in some situations in which they would do this, Medicare is the straw that stirs the drink: once Medicare has a payment policy for such a procedure, typically, commercial insurance will follow, then Medicaid, and then it now becomes common practice to do this, as opposed to giving an elderly person a bunch of opioids, which, genetically, a certain percentage of them are going to become addicted to. So that's another all-of-government response, which is quite different from the law enforcement side.

And the last kind of all-of-government response that I have proposed is: if you speak to a bunch of people treating opioid addiction, you say, "I know intuitively there are some which are doing it right" – doing everything and having better results. And there are others that are just mills, rolling people through, collecting the check from the payor, but not getting the kind of results that the good programs have. Those providers just start nodding their heads, yes. This is commonly known. Well, there are programs which monitor outcomes. It could be something simple. What is the rate – if somebody is on Medicaid, that is – if you track who goes through a treatment program and then shows up in an emergency room within three months with an overdose, and trace it back to the treatment program, most likely, you're going to stratify. They all will have some that have recidivism, but some will have much higher rates of recidivism. There should be a feedback mechanism, where this information is given back to those which are certifying. Those programs not doing well are evaluated and hopefully increase their quality, but if they're not, they are no longer allowed to receive payments; and those who are doing it well in some way, perhaps, receive more payments – again, an all-of-government response, using the data analysis to give us a better response.

I can go on, but that is somewhat of the meat on the bones of what we call a “safer families, healthier communities” strategy. Now, in my office, we've done a number of things, and Congress and the Senate has done a number of things: the CARE Act; 21st Century Cures; allowing an EMS to administer lifesaving drugs; appropriating close to $4 billion to fight the crisis; we've asked GAO for reports of the Foreign Narcotics Kingpin Act; asking DEA questions regarding scheduling of fentanyl; asking Department of Education to promulgate anti-opioid addiction education information for primary and secondary school. But the issue is: what do we do next? And I think that we have everything we just described and more.

One more thing I will mention – because I ran into Mr. Martinez on the way in, who does trade policy – is that one other thing that we are looking at is trade-based money laundering. Trade-based money laundering – cartels, not just drug cartels, but also organizations like Hezbollah – move over $100 billion a year out of the U.S. into other countries, typically through trade-based money laundering. They will misinvoice and, through that misinvoicing, allow the transfer of a large amount of money for a relatively small amount of goods, and get their dollars out. Now: that's not supply. That's not demand. That's not treatment. That is financing. And if we can scritch (ph) financing, that is the ability to just disrupt the entire process.

Of that $110 billion estimated to move annually, currently the federal government claims about $7 billion of it – so we're getting less than 5-percent of the $110 billion that they are moving. We can do better. I'm told that after 9/11, the all-of-government response to the way that terrorism was being financed resulted in a disruption of that financing network. I think we now need to have that same sort of all-of-government response to the financing of the drug trade. It's not that good people aren't doing good work, but the bottom line is that they're moving an estimated $110 billion a year, and we're confiscating less than 5-percent. So however good the work is, there's more good work to be done.

Let me pause here and take any questions. And I just appreciate the opportunity to be here, John, and I would appreciate any question you have. It can be about anything you wish, including LSU football, but, perhaps more appropriately, about opioids. Yes, sir.

WALTERS: I urge people to wait until you get a microphone to ask a question. If you want to make comments, we'll do that later in the program or (inaudible).

CASSIDY: And identify yourself, please.
UNIDENTIFIED PERSON: Hi, Senator. My name is [...]. My question is: you and Senator Graham tried to propose a bill to repeal and replace Obamacare. If the GOP were, as projected, to get more seats in the Senate and maintain its House majority, would you and Senator Graham reintroduce Graham-Cassidy? And if so, would it include a measure to combat the opioid crisis?

CASSIDY: So, the current system is not sustainable. This is not a conversation for that, but it's easily seen by a lot of the statistics. On the other hand, you'll probably need 60 votes. And so far, despite the fact that premiums have increased by 400-percent, there's been a lack of 60 votes to do something about that dramatic premium increase. So I think the lesson we've learned is that it must be bipartisan. I had previously introduced legislation designed to be bipartisan with Susan Collins but, again, I got no takers. Right now, this issue is so politicized that even solutions that allow both sides to win — and that was clearly Cassidy-Collins — are falling on deaf ears, kind of a casualty of the current environment. Anyone else? Yes, ma'am.

UNIDENTIFIED PERSON: [...]. I was at a Bipartisan Policy Center meeting this morning, and a young man stood up asking a question. If people knew that Florida doesn't license any of their opioid recovery operators, it may be a problem that some of those people don't know what they're doing.

CASSIDY: I totally agree. Now, I can't comment specifically on Florida, but as I mentioned, intuitively, you know that there are some that do it well and some that do it less well. And so ideally, we use the data that we have on payments. And there is a system whereby the states are supposed to report their Medicaid data to the federal government. It's called T-MSIS. We're trying to strengthen that, although I had another organization that came in that said in the private sector, as a claims processor, they have the same information, which might be a way to get there sooner. But we need to do a post-treatment evaluation of those who go through treatment. There's an old public health maxim: "that which is measured is addressed." If we measure the success of these programs, we will address those that are less successful and reward those that are more. It is, in a sense, value-based purchasing. It is what we absolutely should be doing. Yes, ma'am.

UNIDENTIFIED PERSON: Hi. I'm [...]. When I keep hearing about opioid abuse, what percentage of it is by illegal drug trade and what is through the medical system? And is it going to be hard to tackle this, because of the influence of the pharmaceutical industry via their donations to politicians?

CASSIDY: So there's three categories, if you will. There's the licit drug being prescribed licitly: so a doctor is prescribing, but she or he is prescribing 20 pills, when seven would be adequate. There was a New England Journal of Medicine article recently. Same type of patient going to the same ER, but two doctors: one doctor prescribes more routinely, the other doctor less, and because of genetic susceptibility, a certain percentage of those patients prescribed the greater number of pills will become addicted. So that is the legal drug being prescribed in a legal fashion, but perhaps not appropriately. There is the licit drug — the legal drug — being prescribed illegally. There are pill mills, where there will be a doctor who will see a patient every five minutes. The patient gives them a check or cash for $250, and walks out with a handful of prescriptions, each one written to the max. And the doc rolls between states — losing their license in Mississippi, getting their license in Louisiana, losing it Louisiana and going to Oklahoma. That is known well among the medical community. So legal opioids, but prescribed, if you will, illegally. And lastly, there's an illegal drug. There has been a decrease in the prescription of legal medications, but an uptick in the influx of the illegal medications. How do you know that? Because even as we've seen a decrease in the prescription of the legal medications, the number of deaths from opioids has continued to climb. So it is multifactorial, but it does seem like illegal drugs are now filling the void from a declining rate of prescriptions. That decline in rate of prescriptions is from greater awareness by the dentists, physicians and other providers out there. Yes, sir.

UNIDENTIFIED PERSON: Yes, [...]. As a follow-up to this question regarding that first category (legal drugs that are being overprescribed, in a sense): have doctors been amenable to the new CDC guidelines regarding prescriptions of these drugs?

CASSIDY: Yeah, probably too amenable, in the sense that I think those were taken as general guidelines. But others are taking them as firmer than that. But in my state of Louisiana, for example, the dental society came forward to the state legislature, and proactively gave medications — I forget which, but, maybe, seven days should be the max? And the medical society came back and did the same. So there has been a response by the dental and medical community to give guidance to our members to get it down. So, simple answer: absolutely. Yes, sir.

UNIDENTIFIED PERSON: Good afternoon, Senator. [...]. We know a lot of people become addicted to opioids from surgeries and things of that nature. And is there anything non-opioids? Is there access? How do we get more people access to these non-opioids, so they're not becoming addicted to the post-surgery opioids that are being prescribed to them?

CASSIDY: A part of it is what I described earlier. For some of these very painful conditions, you can do something such as an ultrasound-guided nerve block. And there is this whole sense of non-opioid recovery from surgery that the surgeons are now implementing as well. But part of it is common sense. Now I'm going to speak as a dad. Take my daughter: she gets oral surgery, and the doc writes her for 20 of opoid. My daughter weighs 88 pounds. I'm thinking, “Oh, man. I'm sure it's indicated, but I'm a
little nervous about it.” So I just put her on arthritis-strength Tylenol every – I think it’s every – eight hours, and Motrin, prescription strength, every six hours. But I would overlay them, and she never needed it. So part of it is just awareness. You can use Tylenol and a nonsteroidal, which have different mechanisms of action, and you can stagger their dosage and use them at higher dose and never have to use an opioid. So part of that, which is the person who is really desiring to stay off of opioids but have significant pain relief can still do that as well. Maybe one more question. Yes ma’am. I think they want you to wait for the microphone because we’re streaming.

UNIDENTIFIED PERSON: Thank you, Senator. Given your position on HELP and Finance, I had a question. I know that both committees have approved opioid packages. You know what the holdup is in there being a package brought to the Senate floor that can be voted on, kind of like what the House has already done? Are there any sticking points that are delaying it or anything?

CASSIDY: No, I just think there’s a minimum of floor time and a maximum of things to be done. I don’t think there’s any sticking point, per se. I’m never quite the right guy to ask about process, but there are spending bills and appointments that have to be done. But there’s a lot of concern about opioids, which is bipartisan. And I do anticipate that.

I have a hard out at the bottom of the hour. I thank you very much for your concern about the issue. Thanks for the great questions. And John, thank you for having me.

WALTERS: Thank you, Senator.

(APPLAUSE)

WALTERS: Join me in thanking the senator for being here. Thanks, Senator.

CASSIDY: Thank you.

WALTERS: I’m going to ask our panelists to join me on the stage and we’ll start. Again, I want to thank Senator Cassidy for being with us and thank him for his hard work on healthcare, on the opioid crisis, and on a number of other issues that are important to this country. Today we are releasing a new study – there are copies of this available to the audience, and it’s available online – dealing with the issue of opioid use in medicine, as well as giving some background and quantifying the dynamics of the opioid crisis.

We’ve assembled a panel of distinguished people. I’m grateful for all of them for joining us. I’d like to introduce them briefly. They’ll make some general remarks, and we will allow any kind of points that come up that are needing a bit more discussion to happen. Then we’ll open this up for questions from all of you, so we’ll leave plenty of time. Let me begin, though, by introducing the panel.

First, I am joined by my long-term colleague David Murray, who’s sitting in the middle of the three panelists. Dr. Murray is a senior fellow at Hudson Institute, where he co-directs the Center for Substance Abuse Policy Research. He served previously in posts as chief scientist and associate deputy director for supply reduction at the Office of National Drug Control Policy. Dr. Murray directed extensive scientific research on all aspects of the drug problem and helped coordinate high-level interagency efforts to limit production of illicit drugs and counter transnational crime. He has a Ph.D. from the University of Chicago and has taught at Brandeis in the past.

Next, to my far left, is Barry Meier, a well-known journalist with extensive reporting experience on the opioid crisis going back to its earliest days, as well as many other topics. But he’s really one of the people who I learned a lot from in looking at the problem, and the difficulties and the terrible consequences of some of the actions that brought this crisis to a head. He was a reporter. He’s just retired, but I think he’s still known by many of us as a reporter for the New York Times, going back to when he started in 1989. He was the first journalist to shed the national spotlight on OxyContin problem. His 2003 book, Pain Killer, which I believe you said has just been reissued...

BARRY MEIER: Has just been reissued, yeah.

WALTERS: ...Foretold the coming opioid epidemic. He was a member of the New York Times reporting team that won the 2017 Pulitzer Prize in international reporting. And he’s also a two-time winner of the George Polk Award. His reporting at the Times concentrated on the intersection of business, medicine and public health. We’re very pleased that he’s been able to join us.

Finally, we’re joined by Dr. Richard Scranton. He’s the chief scientific officer for Pacira Pharmaceuticals. In that role, he directs the company’s clinical research, scientific communications and health outcomes research. He has a master’s degree in public health and clinical epidemiology and clinical effectiveness from Harvard’s School of Public Health. He earned his M.D. from Quillen College of Medicine at East Tennessee State University. He completed his residency in the U.S. Navy, honorably
discharged as lieutenant commander. He's continuing as an assistant professor, also at Harvard Medical School. He's someone who is on the frontline of looking at some of these alternatives and can talk to us about what that looks like: what the obstacles are and what the promise is. Again, I appreciate you all being here. I think I'm going to start by asking my colleague David Murray to briefly summarize what's in this report as a basis for our discussion.

DAVID W. MURRAY: Thank you, John, and thank you for the introduction. Thank you from the panelists. I think my main contribution is to review what we think we are arguing in this paper and why, what the evidence is, some of which you'll be familiar with, which might be different dimensions of it that we want to highlight. So there'll be a brief overview of the framework — set the table, as it were — for the other panelists to engage. But before I begin this, I do want to very much endorse what Senator Cassidy has said. That was quite striking. He's well-aware. He's very capable. He seems to be very engaged with this issue. But in particular, when he opened with that thing about "safe families, healthier communities," and he identified the differential between how the CDC responds and mobilizes nationwide with urgency and with dollars and with multi-agency outreach for an outbreak of, say, Ebola or hepatitis A, the differential with how we regard this opioid overdose is striking. And that tool of epidemiologic mastery and response and integration across the whole government is really something that's quite urgently needed. And I think every time John, as former drug czar, goes to a meeting, that's probably the primary thing that comes out of his exhortation: how can we build this in real time with real mapping, with real epidemiologic capacity and precision that we're using elsewhere in the world?

We're not bringing it to bear here to solve the problem the best we can. That said, while the worst crisis in drug policy history continues to rise, multiple nationwide efforts are underway urgently to stem the damage. This, however, will involve more than just assessing the toll and affixing responsibility for the opioid epidemic. Policy solutions must be provided to reduce the human and social costs. So the following report, in response, provides an overview of recent developments in the opioid epidemic of use, dependency, and overdose deaths. Also it identifies two major pathways by which opioid initiation worsens into serious personal and social cost, and then it reviews emerging policy changes that can serve to mitigate these costs, particularly with regard to medical practice.

The report contains five central arguments, showing where the crisis now stands. It addresses pathways along which remedies — some existing, some in development — could be provided, it then examines existing empirical support for these alternative approaches for which we're calling, it evaluates procedural and regulatory impediments, leads alternatives and it calls for new models of medical practice and intervention that could alleviate the current crisis. Specifically, we try to show, one, more than 42,000 overdose deaths attributed opioids alone for the most recent year with complete data, which is 2016. Part of the problem is the retrospective nature of this. This toll, found in preliminary reports for 2017, is still rising. And it's probably rising through 2018, as well. We're not measuring it. The unprecedented surge in the availability of prescription opioids has been a major driver of opioid use consequences, particularly as excess pills contributed to nonmedical diversion, and may even have triggered a crossover into the illicit market.

At this stage of the epidemic, however, as Senator Cassidy noted, the illicit opioid black market, particularly for illegal synthetic analogs smuggled internationally, is the single-most significant factor driving overdose deaths, at least as we measure that dimension of the problem — the great lethality and availability of these things. That's one dimension of the crisis that we have not seen adequately addressed, I believe. A question was asked earlier about the illicit dimension proportionately in the rest. The rise of the illicit dimension as a driver of this has been somewhat neglected. We saw this early on when we were in office when, within three short years — opioid use was relatively small in the United States — Mexico tripled the production of heroin in three short years. It tripled the production of pure heroin to be targeted at the U.S. around 2010, '12, '13. Prior to the real emergent outbreak of surge, why was this being readied to flood American streets? That joined with the pharmaceutical dimension, and led to a greater crisis. Prescription deaths, mercifully, as of 2016, have declined somewhat, while heroin attributable and illicit fentanyl-related deaths have risen steeply. The latest data available found in the Journal of the American Medical Association from May of 2018 showed that over 19,000 deaths involved synthetic opioids, that 17,000 involved prescription opioids, some of them diverted illicitly, and that 15,000 involved heroin. So the illicit market — fentanyl and heroin together — are considerably outstripping the pharmaceutical dimension. Nevertheless, reforming medical practice and pharmaceutical opioid availability remains a significant imperative. Finding better interventions for treating both chronic and acute pain and moving the medical system beyond opioids appears as a new medical responsibility. A history of poly drug abuse proves to be a critical risk factor for those who are experiencing opioid dependency or overdose.

For many Americans, however, such standard medical interventions as surgery are also a substantial pathway for opioid initiation, which not uncommonly leads to persistent opioid use and misuse. Studies attest that, for opioid-naive patients undergoing a variety of surgeries, a substantial fraction will persist in using the opioids weeks later — 6-to-9 percent, depending the study and the type of surgery — after the surgery. Moreover, in some instances where patients were already opioid-experienced before they went into the surgery, the proportion of persistent users measured as much as a year after surgical intervention, 45-percent to 71-percent of those who were opioid-experienced are experiencing persistent refill use of
prescriptions. Non-opioid alternatives are needed in medical practice to reduce opioid exposure beyond necessity. Opioid-sparing technology, medical practice and procedures and models need to be incorporated. Even under proper medical supervision, an extensive reliance on opioid medication for pain management presents several risks for patients, particularly at high doses continued for long periods of time. The exact pathway is not completely understood. However, large numbers of unused or residual prescription opioids after a medical episode suggests that standard dispensing practice may be over-reliant on opioids, when alternatives could supplement or even supplant their use. Overall, the two major pathways for opioid misuse – illicit market, consequences of proper patient care – have, in fact, intersected, each feeding the other and providing sources of misuse as the crisis has grown. The flow of illicit narcotics across our borders must be shut down, but standard medical practice must also be reformed in order to stem the rising damage in a manner that will be comprehensive and sustained. Number three, progress has been made in one dimension of the effort, as we've heard already. After a high point of prescriptions in around 2011, the number of opioid prescriptions, as well as the strength of dosage units, has begun to fall. By 2015, the CDC was measuring about a 17-percent decline, which has since grown even past that, in pharmaceutical opioid dosages on a per-capita basis. That's progress.

Improvement has come through administrative action and guidelines, health agencies, congressional pressure and shifts in things such as even the Drug Enforcement Administration's production quotas. But simply driving down access to medications, while important, cannot by itself be a sufficient response. Not only are patients with legitimate medical needs being pressured, but some physicians also feel that their medical judgment is being circumscribed. What is needed is a solution to the other side of the equation, which is to provide non-opioid alternatives to patients who would otherwise be left with untreated, serious pain. New multimodal protocols and medications that incorporate developing as well as existing non-opioid analgesics show promise in surgery and in treating chronic pain. With these new multimodal models, not only is exposure to opioids reduced substantially, and overall circulation of unused opioids curtailed, but, equally important, patient outcomes are improved. Compared to excessive patient and societal costs of opioid reliance, such superior protocols should result in improved patient flow, discharge, quicker recovery, fewer readmissions, and reduced hospital costs. The long-term result will likely provide superior patient well-being and more effective medical practice, with the goal of reducing the opioid crisis also being achieved without the consequences of untreated pain. This report reviews multiple studies showing already strong empirical evidence of non-opioid alternatives being deployed successfully in the treatment of chronic and acute pain across a wide range of procedures and surgical interventions. Non-opioid analgesics, such as liposomal ropivacaine, are treating patients without them suffering unnecessary pain, or occasioning the risks of misuse and dependency.

Finally, we discover that there are existing structural and regulatory impediments to the more widespread adoption of medical practices that forgo the excessive reliance on opioids. These impediments present themselves across a range of issues: a physician training to federal billing codes, insurance expectations, which are found in the bundling of payments to hospitals and providers. This report examines ways of overcoming these impediments and calls on all parties addressing the opioid crisis to adopt a new calculus of costs and benefits to the patient and to society when considering pain treatment alternatives. The report concludes by calling for this new model of patient care built around a targeted flexibility in the management of pain, incorporating patient involvement in accord with the better understanding of specific patient vulnerabilities. Such a preventive medicine approach to patient care should guide further such factors as the future of drug approval processes at the FDA, future of medical training, future of patient education and awareness and, lastly, the development and adoption of an expanded set of medical practice tools for non-opioid alternatives. That's the basis of the report. And we've got some specific citations and follow-ups that are in greater detail in the longer document. Thank you.

WALTERS: Thank you, David. Meier, tell us how we got here and your thoughts on where we should go.

MEIER: Okay. Well, first of all, I want to thank you, General Walters and Mr. Murray, Dr. Scranton and everyone here at Hudson and all of you for turning up. And then, secondly, I'd like to tell you all how annoyed I am that Senator Cassidy came in here and basically stole my thunder and stepped on all of my lines. You know, I didn't realize that a politician could be so well-educated about a subject of public concern. But to his credit, Senator Cassidy was very impressive in his comments.

So, you know, I had the rare opportunity to be a witness, if you will, at the beginning of this epidemic. I was a reporter at the New York Times in the year 2001 when we got a call that came from a pharmacy board employee in the Midwest. He was calling in to give us a tip basically that there was this new drug that had become the hottest drug on the street. It was called OxyContin and it was being made by a company called Purdue Pharma. And the incredible thing that this individual relayed to us was that this company's sales representatives was going around to doctors and pharmacists and telling them that this drug could not be abused and, in fact, had gotten approval from the Food and Drug Administration to make a claim that it was less abusable than other narcotic painkillers that had been around for a really long time, like Percocet or Vicodin. And so an editor came to me. I was just minding my own business. I wasn't looking to do work. I wasn't looking to spend the next God knows how many years working on this subject. They said, “You know, Barry. We got this tip. Since you're sitting around doing nothing, why don't you start making some phone calls and try to figure out what's going on?” And so I thought, “Purdue. Well, that's a university
somewhere in the Midwest.” I didn't know anything about narcotics and I didn't know anything about pain treatment. And I got a very quick education about many of those things.

And what sort of percolated out of that, and what became the basis of *Pain Killer* when it was first published in 2003, was a story, basically, about the desire of medicine, of doctors to treat pain, and the desire to treat pain more aggressively, a recognition that for many years pain – particularly, in seriously ill people, like cancer patients – had been undertreated, that patients had suffered unnecessarily. And so there was a medical initiative. It became known as the pain management movement to treat pain – particularly, end of life pain – more aggressively, so that people didn't suffer. There was no point to it. This movement, these desires, then got hijacked, if you will, by the pharmaceutical industry, and by Purdue Pharma in particular, who began to market OxyContin for all kinds of pain: for dental pain, for joint pain, for arthritis, for sports industry injuries. You know it; you name it. And they began to justify to doctors that they could use these drugs based on these supposed reports that showed that the long-term use of narcotic painkillers did not have consequences to them.

Fortunately, I don't have medical training, because you would not want me to operate on you. But I have time to read medical reports, which doctors often don't do. And when I went back and started looking at the reports that the advocates of greater opioid use were putting forward to promote these drugs' use, it became clear that these studies had nothing to do with the long-term use of opioids. These were all short-term studies that had nothing to do with the consequences that would befall patients if they would use these drugs over a long period of time. So it basically became a story that was being told. And I remember Russell Portenoy, who was one of the major advocates of this – a very esteemed pain treatment doctor in New York City – said to me at one point later on, “Well, you know, Barry, we were just trying to create a narrative, a narrative that would convince doctors to treat pain more aggressively.” And I thought to myself, “Like, I want to write fiction one day, and that's when I'll start creating narratives. You're a doctor. You're supposed to base your actions on science, on facts. And you're going around, basically admitting that what you promulgated was a fiction, a narrative.” And so the use of these drugs became extremely widespread, with tremendous chaos and consequences. The book came out in 2003. And I, like most reporters, was, I guess, maybe arrogant at times. That might be the best word. I thought, "OK, I've written the book. I've done all the reporting. I have solved the problem. It's over.”

And I went on to do other things, but what became abundantly clear to me in subsequent years was that, in 2003, I was just seeing the beginning of a problem. I had no idea that the things that I had written about, the types of things I tried to draw attention to, would basically get run over by the marketing prowess of the pharmaceutical industry and the willingness of doctors to ignore the fact that there wasn't evidence to justify the widespread use of these drugs. The use of these drugs quadrupled over the next 14 or 50 years, and the number of overdose deaths associated with these drugs quadrupled. And things just kept going along. I mean, I'm happy now that topics like the topic we are talking about – this is a discussion. This is the absolutely urgent discussion that we need to have, because we could have had this discussion 10 years ago. There were alternatives to opioid use 10 years ago. There were studies that were appearing in the medical literature 10 years ago, but they were being ignored, and they were being blocked or lobbied by drug industry interests.

And before I go on too long and get too long-winded, I think today is an opportunity for all of us to talk about what some of those alternatives are, and how important it is to treat both pain and addiction compassionately. You know, these are not linked problems, but we have to treat them, and we can't just treat either of them with pills. You just can't throw pills at pain patients or pills at addicted people and expect something good to happen. You have to give them multifaceted pain treatments. You have to deal with them compassionately. That is one of the lessons that I have taken away from all my years writing and reporting about this. And if we can make just a little bit of headway here today in discussing that issue, that would be great, because, in my view, with all the things that Senator Cassidy has talked about, I know that General Walters is interested in this problem that is not necessarily going to be best solved on the government level. Government can help, but it's going to be best solved by companies, by community leaders, and by people like ourselves, who are going to demand that people who are in pain and people who are addicted receive good, compassionate treatment.

**WALTERS:** Thank you, Barry. Let me now turn to Dr. Scranton, who is a practitioner and a researcher, who is on the front line trying to both develop and prove alternatives, and give people the care that Barry was talking about, but also try to work with the bureaucracy to get some of these alternatives through. I wonder, maybe to start off with, what you took away from the paper, and any general comments you have on this topic.

**RICHARD SCRANTON:** I think it was a wonderful paper that really highlights all the information that we've learned over the time. And what saddens me as a physician is Barry's talking about a book he wrote about an area where I trained as a physician and treated patients. And we've known about this for this period of time, and I don't think we made the progress where I would hope to see it. I think the paper points to the fact that there are solutions and we need to act quickly. We can't continue to wait for someone else to solve our problems. And it is going to be multifaceted: it will take patients, physicians and payers, as well as government and communities, to make an impact. And I think that's really what the white paper speaks to. It lays out where we can begin to make a change.
WALTERS: I'm wondering if you could also respond to something Barry touched on. Many people in this discussion — and I think more of them now that some of these measures to deal with the quantities of opioid pain medications that are being distributed — will come back and argue that reducing use means reducing the ability of physicians and patients to deal with pain, and that this is a kind of a, “You can't do a good thing without doing a bad thing,” and that by trying to reduce the use of opioid pain medications or come up with substitutes, you’re condemning people to pain.

SCRANTON: So I agree. I think we have to caution ourselves. There's no quick fix. A simple solution of just saying we're going to reduce prescription volume by half is not a solution for everyone. It's a much more complex problem than that. It does take a community to do this. But, also important, we need to find those centers that are doing the right thing, as Senator Cassidy talked about, and reward those individuals, and then propagate those good practices. That's how we change practice in medicine. But that's part why physicians got into this trouble. We always want to do more, and sometimes doing more actually has unintended consequences. So we need to educate providers about what is the right course of action, and then reward that behavior quickly. And I think that's really how we can make this change and not outpatients to suffer.

No physician wants to go back to the time – in particular, this happened in pediatrics – when we didn't think children would remember the pain that they had, so we didn't treat their pain. That was clearly wrong. As a military physician, we wouldn't treat a soldier who was in pain because we said, “Well, at least we know he's alive.” All those things hurt patients in the long-term, so I do not want to go back to that era, either.

WALTERS: Senator Cassidy talked about both developing alternatives, and changing the system to allow the reimbursement for services in ways that alternatives are now not reimbursed by the government or by insurance companies. The Christie Commission report has, as one of its recommendations, a desire to unbundle some of the now-bundled reimbursement efforts, but as a way of allowing good things to happen, and to not create barriers. But I wondered if you could say something also about how we propagate these things rapidly. You touched on this. When we have alternatives, when we have things that work, when we have — now the estimate based on the death toll from 2016 is 170-plus people a day dying, it's the equivalent of a horrific mass murder every day. And so there is an urgency to getting this knowledge, information technology, in reducing these barriers. Is there some way how to do that, to inform physicians?

SCRANTON: So one thing is through the societies. And we've actually had some great relationships with American College of Surgeons and various societies to help educate everyone that we're all part of the problem, but we're also the solution. So it is through education, through societies and training. All of that is very effective and has proven to be effective.

But also, some of the things that happened to us in the payment reimbursement does create real challenges. Hospital systems are struggling sometimes. And then to try to use an alternative that may at first glance appear to be more costly could be avoided if we remove the incentive to use opioids. Unfortunately, opioids are cheap and they're effective, and so, therefore, that's what is reimbursed; that's what's paid for. If you think about a patient now, who leaves from a hospital and gets a prescription, if a physician tries to write that prescription for 10 oxycodone, and they go to fill it, they'll pay the same co-pay if they got 30. And there's an incentive then, “Well, I want the 30. I want more for my dollar.” There's the incentive when you're having surgery, when you get an opioid alternative, that's not covered. It's bundled into the overall surgical care practice. So they have to choose what alternative they're going to use. And oftentimes, unfortunately, they're going to choose the one that's less expensive, and not look at the unintended societal impact of that choice. All that, I think, could be changed very rapidly through policy and then educated through the societies. And we could see significant alterations in physicians' behavior that actually benefits the patient in the short- and long-term.

MEIER: And just to jump in on that, while I've spent a lot of time beating up on pharmaceutical companies, we shouldn't leave out beating up on insurance companies, because they, in fact, profit through the use of opioids by not paying for more costly methods of pain treatment, be it behavior modification or non-opioid types of treatments. And maybe this is Pollyannaish thinking, that large employers – big folks, like General Motors or Ford, or you know, the famous Harvard physician Atul Gawande is now going to work for a consortium of major employers, including Berkshire Hathaway and a few other people – employers could contribute tremendously, by requiring their insurers to provide these alternative therapies to their employees. Unions, as well.

WALTERS: Lastly, I wanted to also ask Dr. Scranton a little bit about his experience and what we should think about in terms of the FDA approval process for some of these alternatives. This is another area where, on the one hand, FDA process was on the front-end of bringing some of these medications to market, which, in certain ways I think some have – and I have – some sympathy to, were not properly monitored and examined. But the alternatives are going to go through – many of them are going to go through – that same process. Can you talk a little bit about that process, and how it's working and what we need to pay attention to?
SCRANTON: So absolutely. I mean, there's a division. It's their sole responsibility is to approve drugs to treat pain: analgesia, anesthesia. And they have a lot of drugs that are coming through that. There's a lot of companies that will be looking for solutions, and I don't think anyone should get a shortcut because they're providing an alternative. They should go through the same rigorous process; however, I think during any crisis, the FDA does need to prioritize.

So again, I'll give the example. In the pediatric population, there was just a recent publication out of the Journal of Pediatrics that shows the persistent rate, particularly high, in our adolescent patients between, say, 13 and 21. Young adults. About 10-percent of them who get opioids oftentimes do the surgery, my son, for example, who had an ACL repair. They were at risk. And they will have at least a 10-percent, upwards to 20-percent, persistent use of opioids after their initial exposure. And yet there are no approved anesthetics for kids under the age of 12. And so as we go down to the FDA, and we are going to be conducting those studies. And we'll be conducting some of the largest studies in the pediatric population to demonstrate that you can provide an alternative. Those should be prioritized. And we should be able to get those through the process much quicker and in the hands to providers so they can provide these to their patients. So I think it's just setting the right priorities and expediting where that's appropriate.

WALTERS: Well, I think we have a few minutes for some questions. Let me again repeat my request that you wait for a microphone, and that you ask a question. And again, we'll be around afterwards, if you have other comments you want to make to some of the panelists, we can do it then. But let's ask questions now, and I'd like to get as many as possible. The gentleman in the back there.

UNIDENTIFIED PERSON: Thanks. Hi, I'm [...]. I'm [...]. So I just want to know if you can tell us where the United States stands on this problem, first, in the developed world and, secondly, on a global scale. Is this problem as big in Europe, for example? And my second question would be, like, for the journalists from the New York Times, are you hopeful that we're going to see a solution for this problem, let's say, in a year from now, before about 50,000 more people die? Thanks.

WALTERS: Let me try to take the first part of it. Globally, there are two parts to this that are significantly different. We focused a lot of our discussion on the diversion of medications used in legitimate medical practice. Some of them are criminally diverted and distributed, but a lot of this problem in the beginning of our opioid epidemic was the consequences of legitimately prescribed medications in many cases. If you want to think of it, in the United States, there's been three waves, which has been different from other parts of the world.

The first wave of this was the growing and explosive prescribing of things like OxyContin, and other opioid pain medications, based on a misunderstanding – in some cases, a willful misunderstanding – of research that said that they could be safe in ways that they were not, and, then, a resistance to correcting that. So we had an increase, as our paper indicates, as the data shows, that has slightly diminished. That's good. We've tried to have less harm done by the medical practice. Built on that first wave, and not the wave ends and another one starts, but adding to it was, as Dr. Murray said, an explosion in production of heroin in Mexico. Now, Mexico is not the supplier of heroin for most of the world. As you may know, Afghanistan is the largest single supplier of heroin in the world, and there are other places. But for the United States, Mexico is the single supplier. The explosive production of heroin in Mexico came on the scene a little bit subsequent to the peak of the pain medication part of the wave, but it added another series of overdose deaths as a result of heroin use. On top of that, and subsequently added to it, was fentanyl, a synthetic opioid that was shipped either from China, or precursors were shipped. And it was made, we believe, in Mexico, based on some of the investigative reporting. And that has been even more deadly because of its high potency and concentration. It's been mixed, sold as heroin. It's been mixed with other things. There was a recent story saying the new director of CDC's son was overdosed with fentanyl mixed in with cocaine, and that's not a new mixture to see in the world.

But what the United States has faced is a kind of three-part worsening, and that continues even though the reports on deaths lag. Keep in mind we have no reporting nationally on the extent of addiction. We have no reporting nationally on the extent of non-fatal overdoses. We have no reporting nationally that would indicate the consequences and the extent of this in our society. So we know there's great harm being done, and we know that many people in many communities are disproportionately affected by this, but the actual magnitude is not measured. Now, you ask: other parts of the world have been dealing with opioids for quite some time in the form of heroin. There is some medication diversion in other parts of the developed world, but it's generally not as common in the less-developed world, because the resources and the medical infrastructure isn't there. This is one of those things where our wealth and sophistication made us a unique victim. It's been additive, and we are somewhat different. And, in fact, in some of the international treaties, some of the other national parties to them have criticized the United States for the extent of prescribing of these substances, which is significantly – some would say quite significantly – disproportionate to the rest of the developed world. I think there was a question in there for you...

MEIER: Well, the question was sort of a rhetorical one, I guess. It was, "As a journalist, am I optimistic?" To which the answer now currently is, "if I was optimistic, would I be a journalist?"
But, no, I'm not optimistic, but I still have hope. Certainly, one year is a very short time frame. I hope within the next decade, we'll see this episode start to wind down. The last thing I want to do is write yet a third edition of my book 15 years from now. So I am hopeful that people of good faith will do what they can to make the changes that are necessary to start bringing these various tenets of the problem under control.

WALTERS: We'll be shorter in the answers, too. That woman at the end back, there.

UNIDENTIFIED PERSON: When you were talking about alternatives, no one's mentioned medical marijuana. And I think it's particularly cannabis oil that they use for pain relief. Has there been more of a move for states to legalize medical marijuana? And how much of a pushback is the pharmaceutical industry giving towards this?

WALTERS: There are some pharmaceutical research protocols under way to take parts of the cannabis plant. Of course, there are a number of cannabinoids, as you may know, in the cannabis plant. Cannabidiol's been talked about in terms of treatment for certain kinds of seizure conditions and others conditions. It's not a psychoactive cannabinoid, so it has different properties. There, are of course, prescribable forms of cannabis, including THC, that are available in the market. The unusual character of the medical marijuana, of course, hasn't been approved by the FDA. In fact, the FDA has declined to approve smoked marijuana or some of the other commercially available forms as a medicine. There are some forms that are being tested – a nasal spray and others – in other parts of the world and under review in the United States. The federal government's been one of the places in the past that's been supporting some of the most extensive research of anybody in the United States. But again, having had to deal with this issue when I was director of Drug Control Policy during the George W. Bush administration, part of the problem here is a version of the problem you saw with opioid pain medications. You want to have some grasp of what it means to be safe and effective, and what the difference is between a substance that can be cause of addiction and dependency.

I mean, of all the people who the government estimates need treatment in the United States for the use of illegal drugs – which, of course, cannabis is classified as an illegal drug under our scheduling system –, the vast majority, that is more than all other drugs combined, are dependent on marijuana. So I know we have a kind of cultural view that marijuana is OK. It's a soft drug. It's a great substance for various conditions. There's certainly the possibility of someone extracting certain forms of cannabis for practical use. As I say, it is prescribed in medicine now, not as a smoke cigarette or as a gummy bear, as you can buy in some places in the United States, but I think if we want to be serious about this, and follow the research and approval process, we may find some that is. The problem we have is for purposes, I think, largely other issues of legalizing marijuana. This has been done by ballot initiative and other things, which is likely to cause huge problems, as you can see in the example of people reporting what's happening in Colorado. So, yes: maybe we can expand the use of cannabinoids. But it would be wise, especially considering what we've seen now, what we have before us as evidence, that we do it in a rational way.

UNIDENTIFIED PERSON: Hi. Thank you. My name is [...], and I have a question in the sense of addressing this multipronged problem. What are the ideas in the fact that we can hold insurance companies accountable to being able to reimburse patients for alternative care? We've seen certain large organizations such as NIH doing a lot of research. We see many pain clinics that are saying, "We can give you prescription painkillers, but why don't you try other alternatives, such as massage therapy, acupuncture, or nutrition?" Why aren't we showing that our care model is changing from a SOAP note program while treating patients to being educated enough to educate our patients on other alternatives? Are there any responses when it comes to insurance care and how we can help our patients?

SCRANTON: So we are beginning to see some movement with some payers like Aetna. We have a collaboration with them where we actually are the insurers stepping up to educate and provide reimbursement and dental care, or where they provide an alternative to treat pain. In particular, our drug, the liposomal, a long-acting local anaesthetic. So I think the employers are also putting pressure. I think it has to really come from that; I mean, from that base. And they're asking the insurers to provide opioid sparing for a variety: for chronic pain, for acute pain. So I think you're going to begin to see more and more of employers, as they become educated that this is what's affecting their population base.

WALTERS: Barry, have you talked to anybody who's tried to deal with this on the employer or insurance side?

MEIER: On the insurance side, yes. Aetna I've spoken to. And that's right: they are trying to reduce drug use. And, you know, the big question is, to what degree are they actually supporting alternatives to opioids? Blue Cross Blue Shield of Massachusetts put out a big report that their opioid use was down 50-percent over the last couple of years, which is quite striking. So I'm presuming from that that they are providing patients with some alternatives to opioid treatment.

You know, the thing that we speak a lot about overdose deaths, that's become the marker in this epidemic. Obviously, it's the most terrible consequence of the use of both legal and illegal opioids. But I recall very vividly that one of the advocates of greater opioid use, who had an awakening about a decade later said to me that addiction isn't really the problem. The problem is that these drugs cause patients to opt out of life. And I thought of that when Senator Cassidy was speaking, because I saw studies
earlier in my research that huge numbers of workers injured on the job – relatively standard workplace injuries, such as back injuries –, once they are put on opioids, and when they're on opioids for 30 days or more, the likelihood that they're ever going to return to work goes down dramatically. So, I mean, that kind of information really puts an onus on employers and insurers to do things differently.

**MURRAY:** Can I just jump in with one thought and make it very brief here? At the end of the paper, we talk about the fact that much of the opioid consequence and the doctor-patient relationship is one thing. It's a dyad here. And there's a complexity of insurance, and choices made, and certain costs that are incurred. But so many of the implications and damages are external. They're externalities in the economist's sense. They're passed outside the immediate doctor-patient relationship...

**MEIER:** Right.

**MURRAY:** ...To society...

**MEIER:** Right.

**MURRAY:** ...To the workplace...

**MEIER:** Right.

**MURRAY:** ...To the labor force, to the lost family, the damage. These externalities have to be considered, I would argue, if we're going to now incentivize. It's not just we have cost-benefit studies that show hospital discharge rates improve, and, therefore, the econometrics drives the insurance industry. Yeah, good enough. But we have to look at the externalities, the damages that have been accrued here that have been passed into the wider hands of those who are not immediately involved, and have to be calculated as part of what we need to do to rectify and remedy and resolve, as well as getting people back into treatment and recovery. These are the nature of the externalities that we have not considered sufficiently.

**WALTERS:** Also, Dr. Scranton and I were talking a little bit before the event. There is another part of this that we've only begun to grapple with. And that is that we now have created – we don't even know how many million – Americans, who have a dependency problem. Some of them are still active in that dependency; some are in recovery. They are going to need medical care. That medical care needs to be shaped by the fact that there's an awareness of their past dependency, because their risk to take some of these pain medications has now been changed by that experience. And that's going to continue to be changed for the rest of their lives. In our society, we've now created an at-risk population that we don't know the size of, and we have not properly considered how to treat, and treat in the most safe and humane ways. All right. Why don't we you start over here with this gentleman?

**UNIDENTIFIED PERSON:** Thank you. [...] with [...]. And this might be for Dr. Scranton, but it really falls along from your discussion there. One aspect of the crisis is regarding patients who are addicted to opioids and who then go doctor shopping for those who might be looking to prescribe, you know, what they desire. So Mr. Meier spoke about the importance of treating addiction and these kind of issues with compassion. What would be the compassionate strategy for helping these patients?

**SCRANTON:** That's a tough question, but we do have to invest more in education and programs where those patients can seek the appropriate care without being necessarily treated only with opioids, where they feel like they have to shop around. And my biggest concern is that those doors are closing down because of our ability to track patients' prescriptions and physicians' concerns on the penalties they may face. And so they will seek other sources of opioids, whether they be heroin or fentanyl, and that's not a solution either. So there will have to be investment in substance abuse programs, where we can help put those patients on a treatment path, so that they can live their lives. And we need to develop more therapies that can treat that pain differently. And that's where a lot of us are, who are researchers in this area, trying desperately to find those modalities where we can treat patients with compassion and not subject them to a long-term sadness.

**UNIDENTIFIED PERSON:** The FDA recently held a meeting to talk about this whole issue. And they heard from countless patients with genetic and chronic illnesses, such as sickle cell anemia, saying that they've been on opioids for decades, in some cases, with no problems. They are not addicted. But it enables them to return to life and have a quality of life. With the new restrictions in opioid prescriptions, they are having trouble getting their prescription that they've been on for 10, 15, 20 years. How do you break out that section of the population, which really doesn't appear to have an addiction problem, from the population that, with long-term use, does have it?

**SCRANTON:** Well, I'll say this: I think that's key. This is a complex problem. We segment even further. In the surgical arena, it's different. When we talk about minimizing opioids, there are often times where we hear people say, “Well, you're going to take my opioids away.” No, we're talking about you're coming for an elective surgical procedure when you're trying to fix a painful condition. What you don't want to do is leave with a persistent use of opioids. So we need to look at that patient population
differently. We need to look at the patient population for whom we have no other solution, but we can monitor them and provide them pain relief, and if that requires opioids, monitor that. So there has to be some different scenarios. That's why I don't believe a quick fix where we just, say, "Cut all opioid prescriptions in half, and that will solve the problem." That will not solve the problem. So it does need to be tailored.

WALTERS: Yeah, I think, from my experience of government trying to look at the regulation of some of these issues and how you have to deal with them, we want to be able to trust the frontline physicians and healthcare providers to take people as individuals, to understand their circumstances, and to give them safe care. Obviously, when we have as many people becoming addicted and dying, we're not doing that for a significant number of people when we have as many people as we now have come in for legitimate medical care and then leave with a dependency problem that upends their lives. We're not doing the kind of job we want to expect from our country and our institutions.

I think there's also issues about people who've used these substances for a long time. But I'm not a practitioner. I've talked to a lot. I try to educate myself from people who are researchers. For a lot of these opioids, people develop a tolerance. So there are people who've used some of these substance long-term, but there also are people who have had a problem with sustained use over a long period of time, creating a need for additional use, the additional amounts that cause additional consequences.

So, again, I think the issue here is one size doesn't fit all. The risk factors, the circumstances, the alternatives, the -- obviously, you're going to have to try some things with some patients, as we do in other forms of medical care, and see what works best and try to give them the best path. And for some there may not be a perfect path, so we have to face that, as well. But, again, right now we have an out-of-control abuse problem. Some of it is coming in the medical system. The evidence suggests maybe a little bit less now, but we certainly want to do much better than we are. And some of it -- a large part of it -- is coming from massive criminal trafficking in deadly opioids, and in other drugs that are now coming in larger quantities like methamphetamine, like cocaine. So this is another dimension of this problem that overlays the problem of medical diversion. Yes, ma'am, in the back?

UNIDENTIFIED PERSON: Hi, my name's [...] with [...]. I have two questions. First of all, on the issue of rural communities and opioid use, did your research see different in rural communities? How can we address pain management in different ways for these communities that are being hit really hard by opioid use, but don't always respond well to traditional urban methods? And then my second question is about medication-assisted treatment, or MAT. How can more physicians come onboard with using that, once someone does have a substance-use disorder?

SCRANTON: I will take on the role, because I trained in Upper East Tennessee rural medicine. I agree with you. It is a challenge. Particularly, I can still speak to the post-surgical. We think we're doing a good thing, because those individuals are going to go back to the rural area. There's not a lot of care. So what we're going to do is give you a larger prescription of pain medications, because we don't want to inconvenience you to come back to see me and my practice. And that has also led to a significant problem. We're actually working with the state of Illinois to look to set up these networks where we can have an appropriate kind of safety net for them, where we can diminish opioids, but still have the ability, if they need help, they can get it quickly. So it is a challenge. And the education will be different. We're working with societies to figure out what is the appropriate education for those communities, and working with the local community leaders to try to educate about that. But it is a challenge. The second: I think it's back to time. I mean, physicians right now are burdened with a lot of paperwork and checks and things of that sort. And they need to be able to see that that effort they put in does have that impact. And so I think there, again, it's making that a priority, and then incentivizing appropriately for those positions that are doing that, and rewarding that best behavior practice. That's the only way I've ever seen it to work.

WALTERS: I should say, with the study, we did not do detailed geographic analysis of all the places this epidemic has manifested itself. We try to talk about the overall problem and the policy implications of that in a more general way. My own view is that the information we have about the geographic distribution of this epidemic is unconscionably inadequate. That it is not tracked with the priority and with the capacities that we have. I've written something about this, criticizing the Centers for Disease Control for not treating this as a disease and tracking it. But not just, you know, reports on overdose deaths over a year after they happen -- which, OK, that's some data, and I recognize there are complications in collecting this --, but that's not even tracking current overdoses that aren't fatal. It's not tracking addiction. It's not tracking the forms of this pathology. It's not tracking geo-location of these things. That means that people like Senator Cassidy, when they're asked to make decisions about, where do we put resources? What's the size of the resources? What's the size of the threat? We're not giving any of that information, and that is information we can get. We just have to decide to make the institutions that have the capacity to do it, and to properly give them the capacity. Yes, ma'am?

UNIDENTIFIED PERSON: Hi, my name is [...]. I'm [...] Talking about education, I was wondering what you think about just the general population. Everybody now expects they're going to be completely pain free all the time, right now.
SCRANTON: I agree. That's a challenge in doing research. I can tell you, in this country, as we conduct research studies to demonstrate reduction in opioids, one of the biggest challenges is that everyone wants to treat that patient to a pain score of zero. And our challenge is that currently, in the regulatory process, if I could design a perfect study, I would demonstrate that my group to define is pain, but the alternative also got opioids, but they couldn't get out of bed, but they had pain score of zero. And based on our approval process, that would be a failed trial. And so we have to think about how we design these, and set reasonable expectations for our patients. What we are now moving towards in the equation is that it's not just about pain. It's pain with the expectations and as related to function with low-to-no opioids. That's really the outcome. I'm getting patients back up out of bed or home or functioning at their level with low-to-minimal opioids. That really should be the outcome, and if that comes with a little bit of pain, that's OK.

MEIER: And just to add to that, I remember I was speaking to a very nice woman who was the head of a pain advocacy group for patients. And she touched on the point that you raised, which is that if I as a patient, or if one as a patient wants to reduce their opioid use, wants to cut down those drugs and maybe increase their function at the same time, then some pain may come along with that. And accepting that pain, and accepting that they're going to have some level of pain as they move forward is just the inevitable price of making that choice. And it's one that she chose to accept.

WALTERS: I think we need to conclude on that note. I want to thank my fellow panelists here: Mr. Meier, Dr. Murray, Dr. Scranton. I want to thank Senator Cassidy. I want to thank all of you for being with us, and those who joined us online. Again, this report is now available online at the Hudson website. We will also be hoping to continue some of this work as we go forward, because this is obviously one of the most deadly threats happening in America today, and we are not on top of it yet. So thank you all for your interest, and thank my panelists. Thank you.

(APPLAUSE)