

**THE FRONT LINES OF THE OPIOID CRISIS:
PERSPECTIVES FROM STATES,
COMMUNITIES, AND PROVIDERS**

**HEARING
OF THE
COMMITTEE ON HEALTH, EDUCATION,
LABOR, AND PENSIONS
UNITED STATES SENATE
ONE HUNDRED FIFTEENTH CONGRESS**

FIRST SESSION

ON

EXAMINING THE FRONT LINES OF THE OPIOID CRISIS, FOCUSING ON
PERSPECTIVES FROM STATES, COMMUNITIES, AND PROVIDERS

NOVEMBER 30, 2017

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THE FRONT LINES OF THE OPIOID CRISIS: PERSPECTIVES FROM STATES, COMMUNITIES, AND PROVIDERS

Thursday, November 30, 2017

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR,
AND PENSIONS,
Washington, DC.

The Committee met, pursuant to notice, at 10:04 a.m., in room 430, Dirksen Senate Office Building, Hon. Lamar Alexander, Chairman of the Committee, presiding.

Present: Senators Alexander [presiding], Murray, Isakson, Paul, Cassidy, Young, Murkowski, Sanders, Casey, Franken, Bennet, Whitehouse, Baldwin, Murphy, Warren, Kaine, and Hassan.

OPENING STATEMENT OF SENATOR ALEXANDER

The CHAIRMAN. Good morning. The Senate Committee on Health, Education, Labor, and Pensions will please come to order.

Today's hearing is the second in a series of bipartisan hearings on the opioid crisis. Today we're focused on what is happening at the state and local levels to address this crisis that has touched families in every state.

Senator Murray and I will have an opening statement, and then our Members of this Committee will introduce the witnesses. I will call on Senator Kaine when I have completed my opening statement and ask him if he would like to make any opening remarks and introduce one of our witnesses. I thank him for being here.

After the witnesses' testimony, Senators will each have 5 minutes of questions.

I mentioned to the witnesses that the subject is a subject of interest to every single Senator on both sides of the political aisle, but we're in the midst of a tax debate today, Senators will be coming in and going.

The toll of the opioid crisis that is ravaging our country is staggering.

One of our witnesses today, Dr. Abubaker, has experienced the heartbreak that opioid addiction causes. His son, as a 17-year-old, was prescribed 90 Vicodin pills for a minor shoulder injury. He developed an addiction and overdosed 4 years later on a mixture of drugs, including heroin.

I am grateful that Dr. Abubaker is here to tell his family's heart-breaking story and share the work he has done to educate other doctors about prescribing opioids.

As Dr. Abubaker has said, “People from all walks of life have had problems. It has nothing to do with where you live or where you came from. You could be the President. You could be the son of a doctor.”

Last month, this Committee held the first in a series of hearings this Congress has had on the opioid crisis, a crisis that is tearing our communities apart, tearing families apart, and posing an enormous challenge to health care providers and law enforcement officials.

That hearing was focused on the federal response to the opioid crisis, and today we will hear from those on the front lines. Our witnesses represent states, communities, and providers who will share what they are doing and what, if any, changes are needed to federal law to fight the crisis. These witnesses come from four different states. They have personal and professional perspectives on the opioid crisis from the judicial and public health sectors.

We hope to hold an additional hearing early next year as we build on our work from last Congress, which included passing the 21st Century Cures Act, appropriating \$1 billion over 2 years for state grants, and the Comprehensive Addiction and Recovery Act, which created new programs to address this crisis.

I mentioned some of the tragic statistics of this crisis at our last hearing, but they are worth repeating.

The amount of opioids prescribed in the U.S. in 2015 was enough for every American to be medicated around the clock for 3 weeks, according to the Centers for Disease Control and Prevention.

Across the country, 91 Americans die every day from an opioid overdose.

In my home State of Tennessee, 1,631 Tennesseans died of a drug overdose last year, 12% more than the year before, mostly due to an increase in overdoses of synthetic opioids, including fentanyl, a pain medication that is 50 to 100 times stronger than morphine and can kill with just a small dose.

It seems that every day there are new studies and statistics that further describe the toll of this crisis.

For example, last week the White House Office of Economic Advisers released a report that estimated the opioid crisis cost \$504 billion in 2015.

As we talk about this crisis from a state perspective, I hope to hear from our witnesses how are different State Departments—medical, public health, and judicial systems—working together in a collaborative way to address this crisis? What innovative approaches are states taking to address the distinct challenges they face?

For example, Rhode Island is working to connect individuals who overdose with recovery coaches while they receive treatment in hospital emergency departments to try to get people into treatment and break their cycle of addiction in the long term.

The Federal Government remains an important partner in the opioid crisis. Earlier this month, the President’s Commission on Combating Drug Addiction and the Opioid Crisis released recommendations, and I hope our witnesses will touch on some of those today.

We also want to know what is being done with the tools and resources provided in the CARA Act and in the Cures Act, whether these laws are helping make progress, and if not, why not.

This past spring, the Administration began issuing grants funded by the Cures Law for states to use in combatting the opioid crisis. These totaled \$485 million to all 50 states. Because each state is facing different challenges in responding to the crisis, it is important that states have flexibility in how to use the money.

Tennessee, for example, received \$14 million of that money. It is using the money to distribute naloxone, a drug that can reverse an overdose, and train people how to use it to reduce the number of overdose deaths; to expand access to medication-assisted treatment; and to implement strategies to help reduce the number of babies born who experience withdrawal from opioids. In the last 10 years, Tennessee has seen a nearly ten fold rise in the incidence of babies born addicted to opioids.

Other states are using the grants from Cures to address different needs within their states. For example, Arkansas is using its grant to expand access to buprenorphine, a medication-assisted treatment.

Other states are using funds to improve state-run prescription drug monitoring programs, the electronic data bases that can track controlled substances prescribed by doctors and dispensed by pharmacists. That way, doctors can see whether a patient has already been prescribed an opioid by another doctor across the street.

I'm eager to hear how these programs are run in your states and if there are things that can be done at the federal level to help improve coordination and data-sharing at the state level.

Now I would like to call on the Senator from Virginia, Senator Kaine, and invite him to make any remarks that he would like to make and to introduce our first witness, and then I will introduce the others.

STATEMENT OF SENATOR KAINE

Senator KAINE. Thank you, Mr. Chair. I so appreciate the opportunity to say some opening words on behalf of my colleagues, especially Senator Murray. You will see Senators coming in and out today. I have three hearings going right now, and there are meetings about tax reform. But you'll see many Senators here. This is an important topic.

I saw a chart once about 2 years ago about the opioid problem in the United States. It was unlike any chart I had ever seen. I was a mayor and Governor before I came to the Senate, and I'm used to looking at charts, and I often look at charts that look at various challenges, whether it's low-birth-weight babies or educational outcomes or percentage of kids in juvenile detention facilities. I often look at these charts where they rank states 1 to 50, from best to worst.

Most charts of this kind, the best states are wealthy and the worst states are poor. It's kind of sad that you can pretty much put up just a list of states from high per-capita income to low per-capita income and that's going to tell you where they are going to be on the measure of virtually any social challenge.

The opioid chart I saw was completely different, deaths per 100 or per 1,000 to opioid overdoses. I looked at the best 10 states in the country, and there were rich states and poor states. I looked at the worst 10 states in the country, and there were rich states and poor states. This is not a problem that respects race or region or socioeconomic status, and in that sense it's a very different kind of a challenge than virtually any challenge that we deal with on this important Committee.

In Virginia, 1,460 people died of overdoses in 2016, and that was an 18% increase from the previous year, 2015, even though we were paying more attention.

We have been riveted upon this problem, with a Governor, Governor McAuliffe, having appointed a special task force, declaring a public health emergency in 2013 at the urging of many of the congressional delegation. But even with this intense focus and intention, the number of overdose deaths increased. Eighty percent of those were opioids, and of that number, 80% of the opioid overdoses were people whose addiction began when a doctor wrote them a prescription.

The increase in the number of deaths in Virginia, as in Tennessee, as the Chairman indicated, was largely attributed to the flooding of the market with fentanyl, a much higher potency, much more dangerous product.

This is an important hearing to hear what our states are doing so that we can, hopefully, together with our FDA, our HHS, our other health research agencies, tackle this challenge. I think we should try to set a goal as a society to be addiction free by 2030, just like we set a goal to be on the moon at the end of the decade in the 1960's.

What we know about the medical aspects of addiction, but also what we know about potential ways to treat, we could do it if we put our minds and especially our resources to it.

It is my real honor to introduce the first witness today who is a personal friend, and it's Dr. Omar Abubaker of Richmond. Dr. Abubaker I first came to know because his daughter Sarah, who is sitting here in the chamber, worked for me when I was Governor, and Sarah's brother Joseph is also here, and this is a wonderful family in Virginia that has had a horrible story.

Their youngest son Adam, who I met once when I was in line at a local movie theater with Dr. Abubaker, had a minor shoulder injury when he was 17 years old playing football, and he was prescribed 90 Vicodin for this minor shoulder injury.

His dad is a doctor. His dad is a dentist. But like many, this prescription from an orthopedist seemed like exactly what should be done and exactly what should be followed for his son to try to deal with his health challenge.

Instead, that prescription turned into a horrific addiction and led to Adam's death.

Dr. Abubaker is the endowed Chair and Head of the Oral and Maxillofacial Surgery Department at Virginia Commonwealth University. He is a dentist. He is a Ph.D. After his son's death, he has immersed himself in studying addiction issues, and also has a certificate in International Addiction Studies at a program that VCU

has started, together with the University of Adelaide in Kings College, London.

Dr. Abubaker has shared with me as a Ph.D. and a dentist, in a profession that often prescribes opioid-based medicines, he thought that he knew a lot. But as he's gotten into the science of addiction, he realized that even with this extensive training he knew very little about the science of addiction and about what are the appropriate ways to deal with pain management.

He has made it his mission, based on the painful experience of his family, to try to educate first his students—and the VCU School of Dentistry is the producer of all the dentists in Virginia, virtually—first his students, but then others in what are the right ways to deal with pain and what are the right ways to prescribe opioids or other medications.

It's a painful thing that really words can't express the pain that Dr. Abubaker's family has gone through, but his willingness and his passion and dedication to taking the experience and educating others so that other families don't have to go through what his family has experienced is something I really admire.

Dr. Abubaker, we really appreciate you being here today and enlightening the Committee.

Senator Alexander will now introduce the other witnesses, and then he'll ask you to make your opening statement.

Thank you, Senator Alexander.

The CHAIRMAN. Thank you, Senator Kaine, for your remarks and for the introduction.

Welcome, Dr. Abubaker.

I will now ask Senator Paul if he would like to introduce Secretary Tilley, and then I will introduce the other two witnesses.

STATEMENT OF SENATOR PAUL

Senator PAUL. It's my pleasure to introduce Secretary John Tilley, a great example of how we have a Republican Governor and at least a Democrat at one time, and maybe still a Democrat, but bipartisan support for an issue that's not really a partisan issue to try to fix this.

I have long been an admirer of Mr. Tilley as far as criminal justice reform, as well as his efforts with this. He's our Secretary of Kentucky Justice and Public Safety. He's a native of Hopkinsville, graduate of the University of Kentucky and Chase College of Law in northern Kentucky, a former prosecutor known for his work in criminal justice reform. He also served five terms in the State Legislature.

We're glad to have you here and we look forward to your testimony.

The CHAIRMAN. Thank you, Senator Paul. Welcome, Secretary Tilley.

Senator Whitehouse and Senator Baldwin will be here before long, and they'll want to say something about our other two witnesses. But to give them a brief introduction, Rebecca Boss is Director of the Rhode Island Department of Behavioral Healthcare, with more than 25 years of experience in addiction treatment.

Welcome, Ms. Boss.

Then Andrea Magermans is the Acting Managing Director of the Wisconsin Prescription Drug Monitoring Program, who has worked on all aspects of the operations of Wisconsin's Drug Monitoring Program and helped oversee the development and the launch of the Wisconsin Enhanced Prescription Drug Monitoring Program in 2017.

Welcome to you.

We now begin with Dr. Abubaker and ask each of you to summarize your remarks in about 5 minutes each, and that will leave time for Senators to ask questions and to have a conversation with you.

Dr. Abubaker, welcome.

STATEMENT OF A. OMAR ABUBAKER

Dr. ABUBAKER. Thank you, Chairman Alexander. Thank you, Senator Kaine, for the kind words. Thank you, other distinguished Members of the Committee. It's an honor to appear before you today.

Before today is over, as Chairman Alexander mentioned, about 91 people will die from opioid overdose. In fact, approximately 175 Americans will die from all drugs overdose, 91 from opioids. By the end of this year, the death toll from all drugs overdose in this country will be about 64,000. That would fill the entire seating assignment for the former RFK Stadium.

My youngest son, Adam, was one of those people who died from an opioid overdose. He died from drug overdose early in the morning of Saturday, September 27th, 2014. He was 21 years old. Adam did not choose heroin addiction. He volunteered as a firefighter while he was in high school for 3 years and was studying to be an EMT at the time of his death. He was altruistic until the end, donating his organs to save four lives.

It's difficult to comprehend that a high school football injury and a medical device to take one to two Vicodin tablets every four to 6 hours, as needed, for pain led him to addiction and death. A thousand other parents who have lost their children to opioids understand my heartbreak. But I'm also a practicing oral surgeon and an educator, so my pain is magnified because my profession shares some of that burden.

Since my son's death 3 years ago, hundreds of thousands of other parents in this country have had the same dreadful phone call. In Adam's memory, I have become a foot soldier in the war on addictions, teaching about the proper drug use at my university and traveling the Commonwealth of Virginia to advocate for responsible prescribing practices.

In my lectures, I explain to dentists and others the harms of addiction and over-prescribing. My goal is that each student and practitioner leaving my class will be less inclined to prescribe excessive opioids, perhaps protecting one more son or daughter against the harm of narcotics. That's my effort, and that is my colleagues at Virginia Commonwealth and VCU Medical Center.

In Virginia this year, the legislators and the Governor signed laws that were passed that have led to several regulations. Just a few of those regulations are limiting the number of opioid tablets prescribed for acute pain, using prescription monitoring program,

and increasing the availability of naloxone and training for naloxone use. This effort has resulted in a marked decrease in the number of opioid prescriptions since these regulations were enacted in Virginia, and I can see on the ground that students, residents, and practitioners have changed their prescribing practices.

Nothing I have done or will do will bring my son back. It is too late for Adam and others like him. However, we need to do everything we can to see that such tragedy does not continue. We need similar or even more legislative steps across the country to ensure this happens.

Despite the colossal human cost of the opioid crisis, this is only the tip of the iceberg in terms of human and financial cost of addictions as a disease. The American Medical Association and the American Society of Addiction Medicine have designated addiction as an organic brain disease. Yet, teaching about it in most health care professional curricula and access to treatment for those affected is far from what the AMA and the SA intended it to be. Moreover, the stigma associated with addictions deter people who are affected from seeking treatment in the first place because of the shame associated with it. Many may not be able to access treatment even when they seek it.

I hope your Committee will keep this in mind as you go through this hearing. I hope you also do not take your eye off the ultimate goal that needs to be attained. Please do not confuse winning the battle against the opioids with winning the war on addiction, which should be our ultimate goal. We need to assure funding and coverage for addiction treatment and for mental illness across the country through state, federal, and commercial insurance carriers.

We also need to change our entire educational system so that we will see addiction for what it is, a disease of the brain. Opioids are only the decoy, but the real foe is addiction. We need to combat the opioid epidemic so we save our children. But we also need to regard and treat addiction as a disease to protect our grandchildren from what may come in the next 10, 15, or 20 years from now.

Again, thank you very much for your invitation, and I'm privileged to be here. Thank you.

[The prepared statement of Dr. Abubaker follows:]

PREPARED STATEMENT OF A. OMAR ABUBAKER

Before today is over, approximately 175 people will die from a drug overdose in our country, and over the next 3 weeks more than 3,500 will die from the same thing. That is more than all the people who died from the September 11 terrorist attack.

My youngest son, Adam, overdosed early in the morning of Sept. 27, 2014, on a mixture of heroin and benzodiazepines. He died in the intensive care unit of a local hospital four days later. He was 21.

Adam didn't choose heroin addiction. He volunteered as a firefighter while in high school and was studying to be an EMT when he died. He was altruistic until the end, donating his organs to save four lives.

Since my son's death 3 years ago, more than 165,000 other parents in this country have experienced the same agony. Carrying his suffering and tragic death with me, I have been teaching at my university and traveling the Commonwealth of Virginia talking about the opioid epidemic, pain management and addiction to anybody who will listen. My goal is that each student and practitioner who leaves my class will be less inclined to prescribe excessive opioids, perhaps guarding one more son or daughter against the harm of narcotics. Nothing I have done, or will ever do, will

bring my son back. It is too late for Adam and for another 165,000 like him, but it may not be too late for other fathers and mothers. I am doing my part to see to it that it is not too late for these parents. I am praying that all Americans will do their part, regardless of their political position or role, so that my efforts will be worth while.

In Virginia, the opioid crisis was declared a public health emergency in 2016. In the spring of 2017, the following became regulations to combat the epidemic:

On the prevention front: The Boards of Medicine and Dentistry enacted regulations (effective May, 2017) to limit opioid prescription for acute pain to 7 days (14 days for post-surgical pain). The Medical regulations also drew from the CDC guidelines to require best practices for the prescribing of opioids for chronic pain (e.g., prescribing of naloxone if >90 MME, avoiding concomitant opioid and benzodiazepine prescribing, requiring periodic urine screening, and checking the Prescription Monitoring Program (PMP) when prescribing opioids for >7 days. Virginia's PMP can identify outlier prescribing or dispensing and refer to Department of Health Professions enforcement for investigation. Prescribers are also now required to complete 2 continuing education credits on pain management and opioids as a requirement for licensure renewal.

Since May, more than 48 prescriber education sessions were held to make prescribers aware of the new regulations. As a result of these efforts, there has been a 30% decrease in the number of pills prescribed in the Commonwealth. On the treatment front, Virginia's new law includes immunity for naloxone administration, and allows dispensing of naloxone after state-sanctioned trainings. As a result, more than 11,000 doses of naloxone have been made available. The new laws also allow for needle exchange in health districts, in coordination with local governments. Further, the Virginia Addiction and Recovery Treatment Services program, a Medicaid waiver to allow increased reimbursement for the full range of treatment services, has dramatically increased the number of treatment providers and resources in Virginia, and is being recognized nationally. Virginia's Department of Health and Department of Medical Assistance Services (DMAS) worked extensively in 2016 to increase the number of physicians who are waived to prescribe buprenorphine for addiction (Medication-Assisted Treatment (MAT)). This resulted in increased treatment services with better quality. In addition, our Department of Medical Assistance Services, our Medicaid, pulled together insurers, health systems, and governmental units to develop ARTS (Addiction and Recovery Treatment Services), a new Medicaid benefit designed to increase treatment for addiction.

At my institution, Virginia Commonwealth University and VCU Health, we have been relentless in advancing these issues. Also, at VCU, a curriculum on the topics of opioids, pain management and addiction has been initiated. In addition, VCU faculty established a clinic for treatment of addiction treatment and several measures were adopted in developing policies and guidelines for pain management and opioid prescribing for both inpatients and outpatients at the VCU Health hospitals and clinics.

The initial data show that these legislations and policies are working. In addition, as I interact with students, residents and faculty at the university and medical center, and as I travel around the Commonwealth and talk to dentists, I see a willingness to learn and change practices by all.

These attempts to change by legislators, educators and doctors in Virginia can even be more effective if the neighboring states would adopt similar legislations and guidelines or opioid prescribing and for educational reforms. In fact, the variation among states makes individual efforts less effective. If some of these regulations were federal, and if there are federal mandates for educational changes on opioid prescribing, pain management and addiction, we will have even more impact on curbing the epidemic. Encouraging and supporting states to provide reimbursement for treatment of addiction (just as coverage of other diseases), and expanding resources and funding training programs (residency or fellows), we can speed up reining in the epidemic, and save lives.

The heartbreaking current trail of deaths from drug overdose is only the tip of the iceberg regarding the current number of deaths from the disease of addiction. The American Medical Association and American Society for Addiction Medicine have designated addiction as an organic brain disease, yet teaching and treating it as such by most. Some The stigma associated with addiction deters people who are affected from seeking treatment because of the shame. Some may not be able to access treatment even when they seek it.

I worry that we will not address the root of the current opioid epidemic, which are addiction and mental illness, as the underlying reasons for all drug epidemics we have been through and will face in the future. If we do not address the founda-

tions of these epidemics, I fear that another drug epidemic will emerge years from now and another generation of Americans (maybe our grandchildren) will be facing a drug crisis of different kind. We had better not let that happen. With the knowledge we have now about brain functions and how addiction affects it, to let future generations of Americans be affected by a similar crisis in the future would be an historical abdication of our responsibility to do good by our country.

Finally, on behalf of the parents and families who lost loved ones, I am looking to you to act boldly. We need federal reform of all of our educational systems to include scientific facts about addiction, drugs and all substances of abuse. We need to prevent the harmful effects of such exposure through education and by identifying those at risk and interrupting the disease at its earliest stages. We are also looking to you to allocate funds in the Comprehensive Addiction and Recovery Act and in the 21st Century Act coverage, not only for treatment of all forms of addiction and its underlying mental illness, but also to extend coverage for screening of those at risk for addiction, brief interventions and referral for treatment (SBIRT) of those affected. Let us make "SBIRT" the new 5th vital sign in our emergency rooms, doctor offices and everywhere patients interface with the health care system. These are historical times in our country's health system, and it can easily be compared to a plague such as with tuberculosis and AIDS in our time. I hope you leave your mark on history by acting boldly so that the loss of our children will not be in vain.

Thank you for giving me the honor and opportunity to speak before you and I thank you for what you are doing on this front.

[SUMMARY STATEMENT OF A. OMAR ABUBAKER]

Before today is over, approximately 175 Americans will die from a drug overdose, and over the next 3 weeks, more than 3,500 will die from the same thing. That is more than all the people who died from September 11 terrorist attack. My youngest son Adam was one of these people who died from a drug overdose early in the morning of Sept. 27, 2014. He was 21.

Adam didn't choose heroin addiction. He volunteered as a firefighter while in high school and was studying to be an EMT when he died. He was altruistic until the end, donating his organs to save four lives. It is difficult to comprehend that a high school football injury and the medical advice to take "one or two Vicodin tablets every four to 6 hours as needed for pain" led him to addiction and death.

Thousands of parents who have lost children to opioids understand my heartbreak, but I am also a practicing oral and facial surgeon and an educator so my pain is magnified because my profession shares some of that burden.

Since my son's death 3 years ago, hundreds of thousands of other parents in this country have had the same dreadful phone call. Carrying his life suffering and tragic death with me, I have become a foot soldier, teaching about proper drug use at my university and traveling the Commonwealth of Virginia to advocate for responsible prescribing practices. In my lectures, I explain to dentists and others the harms of addiction and over-prescribing opioids. My goal is that each student and practitioner leaving my class will be less inclined to prescribe excessive opioids, perhaps protecting one more son or daughter against the harm of narcotics. That is my effort and that of others in our medical center.

In Virginia, several laws were passed that have led to regulations for prescribers. These regulations include limiting the number of tablets prescribed for acute pain, using prescription monitoring programs, increasing availability of naloxone, increasing the number of physicians who are waived to prescribe Medication-Assisted Treatment (MAT) and recommendations for increasing curricular competencies in pain management, opioid prescribing, and addiction in Virginia's health care professional schools.

These efforts have resulted in a marked decrease in the number of opioids prescribed since the regulations were enacted and I can see the change in the students', residents', and practitioners' prescribing practices.

Nothing I have done, or will do, will bring my son back. It is too late for Adam and others like him. However, we need to do everything we can to see that such tragedies do not continue! We need similar or even more legislative steps across the country to assure this happens, despite the colossal high human cost of the opioid crisis, this burden is only the tip of the iceberg in terms of the human and financial cost of addiction as a disease. The American Medical Association and American Society for Addiction Medicine have designated addiction as an organic brain disease;

yet, teaching about it in most medical curricula, and access to treatment for those affected, is far from what the AMA and the ASA intended it to be. Moreover, the stigma associated to addiction deters people who are affected from seeking treatment because of the shame. Some may not be able to access treatment even when they seek it.

I hope your Committee will keep this in mind as you go through these hearings. I also hope you do not take your eye off the ultimate goal that needs to be attained. Please ensure that when we win the battle against the opioid epidemic we do not mistake it for winning the war on addiction, which should be our ultimate goal. We need to assure coverage for addiction treatment and for mental illness across the country through state, federal and commercial insurance carriers.

We also need changes in our entire educational system so that we all see addiction for what it is—a disease of the brain. Opioids are the decoy, but the real foe is addiction. We need to combat the opioid epidemic to save our children, but we also need to regard and treat addiction as a disease to protect our grandchildren from what may come next.

Thank you for the giving me the honor and opportunity to testify.

The CHAIRMAN. Thank you, Dr. Abubaker, and thank you for your courage and advocacy and for being here today.

Ms. Boss, welcome.

STATEMENT OF REBECCA BOSS

Ms. BOSS. Thank you. Chairman Alexander and distinguished Committee Members, in Rhode Island I am responsible for the development and oversight of the state's Substance Use Disorder, Treatment Prevention and Recovery system. I am also a Board Member of the National Association of the State Alcohol and Drug Abuse Directors.

Thank you for allowing me to share Rhode Island's work in combatting the opioid crisis, an effort that has been proposed as a national model. Our strategies to address this epidemic are clearly outlined on our website, *preventoverdoseri.org*. It's important that our efforts are data driven and publicly transparent.

First and foremost, I would like to thank Congress for the federal funding so critical to states through the Department of HHS agencies, specifically SAMHSA, CDC and HRSA. Additionally, we are appreciative of the action Congress took passing the CARA and the 21st Century Cures Act.

Addiction and overdose are claiming lives, destroying families, and undermining the quality of life across Rhode Island. Over the last 5 years, our small state has lost more than 1,200 people to overdose. In 2015, soon after her election, Rhode Island Governor Gina Raimondo recognized the need for the state to develop a comprehensive strategy to reverse this trend. She established the Governor's Overdose Prevention and Intervention Task Force, Co-Chaired by myself and the director of the Department of Health. This multidisciplinary task force is the center of our efforts and is composed of an array of stakeholders and experts which represent the kind of partnerships necessary for progress.

We have made significant strides in all four areas of our strategic plan: prevention, rescue, treatment, and, as you mentioned, Chairman, recovery. This week, Rhode Island will announce a 10 percent reduction in overdose rates in 2017. We are cautious to be overly optimistic in the face of a dynamic epidemic but can't help but believe we are beginning to see the results of our efforts.

The battle is far from over. We need to press on. But we see a glimmer of hope.

Access to treatment is the cornerstone of Rhode Island's efforts, and we promote that every door is the right door. Evidence indicates that all three forms of medication-assisted treatment have life-improving effects on people with opioid use disorders. It reduced the risk of death, relapse, incarceration, and greatly improves quality of life.

Federal funding through grants and the Cures Act have helped Rhode Island promote this treatment through the creation of Centers of Excellence, supporting MAT and primary care practices, and supporting psychiatric services for co-occurring disorders.

With higher vulnerability for overdose, the population of the Department of Corrections is a focus for intervention. With every door being the right door, Rhode Island provides MAT through our combined prison and jail system. The Governor committed \$2 million of state funding in Fiscal Years 2017 and 2018 to this program. All people entering corrections are screened for opioid use disorders and, if appropriate, are continued or initiated on MAT. Inmates nearing release are offered MAT if clinically appropriate.

Now, Rhode Island has successfully implemented a comprehensive MAT program in the correctional system, with over 300 inmates receiving medications for addiction treatment every month. Connection to care in the community post-release is 75 percent. Preliminary findings suggest substantial reductions in overdose mortality for people with recent incarceration. This is a remarkable achievement considering the high risk posed by fentanyl circulating in our communities.

The revision of data waiver requirements through CARA has had a positive impact on our provider capacity. Data waiver training incorporated into the curriculum of the medical school at Brown University means that new graduates are eligible to join fellow physicians in treatment of opioid use disorders using evidence-based medicine. Rhode Island now has 20 new data waiver prescribers that are mid-level practitioners. At least one of Rhode Island's physician assistant programs is offering clinical rotations through our Center of Excellence.

In Rhode Island, we rely heavily on data to inform our processes. We have implemented a multidisciplinary overdose death evaluation team which seeks to gain insight into emerging trends, identify gaps or opportunities, and inform the distribution of local funding to communities. The Surveillance Response and Intervention Workgroup reviews updated overdose data on a weekly basis to alert communities when activity exceeds baseline. The community overdose engagement program calls for task force members to engage with communities in developing individualized responses when overdose activity repeatedly exceeds thresholds.

Before concluding, I humbly submit a few recommendations.

Creation of federal regulations and/or funding requirements that explicitly prohibit discrimination against MAT and the individuals who receive it. Any federal initiative should include the involvement of the State Alcohol and Drug agencies. Our staffs have the expertise and authority that can help chart the right course.

Increasing funds through the state substance abuse, prevention and treatment block grant issued through SAMHSA. The SAPT block grant offers a means to distribute funds effectively and efficiently and provides opportunity for states to individualize interventions.

Eliminate the prohibition for the use of federal medicaid funds to treat incarcerated adults. Rhode Island's experience demonstrates how a thoughtful approach can reduce overdose and relapse, encourage recovery, and potentially impact recidivism. State general revenue dollars cannot be expected to sustain this effort.

For Rhode Island, the continued availability of Medicaid expansion and affordable health insurance to support treatment access is essential to our success, and continued funding through CARA and the Cures Act.

Thank you for this opportunity, and I look forward to questions.
[The prepared statement of Ms. Boss follows:]

PREPARED STATEMENT OF REBECCA L. BOSS

Chairman Alexander, Ranking Member Murray and Distinguished Committee Members, my name is Rebecca Boss. I am the Director of the Department of Behavioral Healthcare, Developmental Disabilities & Hospitals (BHDDH) and lead the development and oversight of the state's substance use disorder treatment, prevention and recovery service system.

It is a privilege to serve my home State of Rhode Island under the leadership of Governor Gina Raimondo and Secretary of Health and Human Services Eric Beane.

With more than 25 years' experience in both state government and the provider community in substance use disorders, and as a Board Member of the National Association of State Alcohol and Drug Abuse Directors, also known as NASADAD, I feel that I am uniquely positioned to testify on this crucial matter.

Thank you for the invitation to appear before you to allow me to give you Rhode Island's perspective on the Front Lines of the Opioid Crisis. First and foremost, I wish to thank Congress for the federal funding that is essential to state agencies like BHDDH that comes to us through agencies of the Department of Health & Human Services, specifically SAMHSA, CDC and HRSA.

Furthermore, we are very appreciative of the action Congress took last year passing the 21st Century Cures Act with \$1 billion to help support prevention, treatment and recovery throughout the country. We are grateful for the funds which are enabling us to carry out our much-needed work with Congressional support. As a note, we are supportive of the revisions to the Cures Act sponsored by Senator Jeanne Shaheen, which allow funds to flow to the states with "a prevalence of opioid use disorders, and a mortality rate associated with opioid use disorders." This change will allow the hardest hit states to move quickly and with flexibility.

Addiction and overdose are claiming lives, destroying families, and undermining the quality of life across Rhode Island. For over a decade, opioid dependence and accidental drug overdose have been growing problems across the United States, and Rhode Island has been one of the hardest hit. Over the last 5 years our small state has lost more than 1,200 people to drug overdoses, coming from every community in the state. That is the equivalent of three Boeing 747's crashing with full passenger loads—lives needlessly lost.

Our work must be focused on saving lives. RI Governor Gina Raimondo recognized this and soon after her election in 2015, she knew the state needed a focused, state-wide strategy to evaluate, prevent, and successfully intervene to reverse the overdose trends. She realized the scope of the problem had underlying issues, factors and consequence, we needed a new approach to combat this epidemic. Clearly, something different had to be created and implemented.

In order to develop a far-reaching approach, the Governor established the Governor's Overdose Prevention and Intervention Task Force naming the Directors of BHDDH and the Department of Health (DOH) as Co-Chairs. The Task Force included stakeholders and experts in fields ranging from public health and law enforcement to healthcare, community-based support services, insurance, academia,

business, government and more. A Strategic Plan to Address Opioid Addiction and Overdose was created which recommended specific, evidence-based strategies in four areas: prevention, rescue, treatment and recovery. The plan was data-driven plan and with the help of Brown University, a web site was created (www.preventoverdoseri.org) where all efforts are tracked in a public and transparent fashion.

The multi-disciplinary composition of the Task Force became its distinguishing factor. The Task Force soon became the center of all opioid overdose prevention and intervention activities in the state. The perspectives of various individual Members brought cross-learning to the sectors around the table. Committees were formed in the four areas of Prevention, Rescue, Treatment and Recovery and everyone went to work implementing the strategic plan.

Within the four areas of the strategic plan, much was accomplished in 2016 and thus far in 2017. Individual communities; substance use treatment, prevention and recovery providers; and law enforcement officials created many new initiatives. Legislation was passed. Hospitals and emergency department discharge standards were implemented. All of this work originated from the Task Force.

Some the initiatives included:

PREVENTION

Safer Prescribing: To achieve safer opioid prescribing, it is important to weigh the benefits of medication access for patients living with acute and chronic pain with those of the risks of diversion, addiction, overdose, and premature death. Unsafe combinations of prescribed medications are linked to addiction and many overdoses are preventable.

The key strategy to reduce dangerous prescribing is to use the Prescription Drug Monitoring Program (PDMP) and system-level efforts to reduce co-prescription of benzodiazepines with opioids (for pain or opioid use disorder). Before DOH launched its Prescription Drug Monitoring Program Enrollment Enforcement Plan in 2016, more than 30 percent of Rhode Island prescribers had failed to enroll in the PDMP, and fewer than 40 percent were using it. As of July 2016, legislation had passed that all such practitioners shall be automatically registered with the Prescription Drug Monitoring Program maintained by the Department of Health. As of today, 100 percent of practitioners are enrolled. The state continues to monitor use of the PDMP by prescribers as well as sending prescriber profiles to practitioners, and providing academic detailing-or one-on-one office visits-to promote safer opioid prescribing behaviors.

Additionally, DOH Director, Dr. Alexander-Scott co-led a successful national petition drive calling on the FDA to require “black box” labels on opioids and benzodiazepines warning that concurrent use of these medications increases the risk of fatal opioid overdose.

Reducing the Supply of Prescribed Opiates (Rx): Rhode Island has developed regulations that limit most opioid dosing for acute pain management to a contained period of time (with exceptions for specifically determined patients) and supports existing hospital policy to restrict opioid prescriptions from emergency rooms to 3 days or less.

The promotion of non-opioid therapies for chronic pain, such as chiropractic services, massage therapy, physical therapy, and acupuncture as important alternatives to opioid pain relief is another successful effort in Rhode Island. Access to comprehensive health care coverage, including Medicaid, is a crucial component of these non-opioid alternatives.

RESCUE

Naloxone as Standard of Care: Naloxone saves lives by reversing the severe respiratory depression caused by opioids. Its use by lay people trained to identify and respond to overdose has been linked to reductions in overdose death rates. People who use opioids are at greatest risk of overdose, and are motivated to protect themselves and others around them to save a life with naloxone. Law enforcement being equipped with naloxone is critical in the fight against opioid overdoses. In fact, in Rhode Island two police departments (East Providence and North Providence) have offered to purchase naloxone for those departments who may not have the funds to purchase it themselves. Further, Rhode Island has promulgated regulations requiring all inpatient substance use disorder providers to offer naloxone to at-risk clients, Emergency Departments are dispensing naloxone to individuals who have overdosed, peers distribute on the street, and inmates with substance use disorders are given naloxone upon release. Fortunately, Medicaid and commercial in-

surances cover Naloxone through pharmacies in RI which allows BHDDH to use other federal funds for additional prevention and intervention activities. Furthermore, state law mandates insurance to cover at least one generic form of naloxone, including naloxone that may be used on a so-called “third party”: a family member or friend whose overdose could be reversed by use of naloxone. Rhode Island has some of the highest naloxone distribution per capita in the country, and achieving this statistic is an evidence based approach: public health impact is greatest when the number of naloxone kits distributed is greater than 20 times the number of annual overdose deaths, a target that Rhode Island nearly reached in 2016 (target: 6,720, dispensed 6,387 kits) and is on track to exceed in 2017.

TREATMENT

Medication Assisted Treatment: Evidence indicates that medication-assisted treatment (methadone, buprenorphine or depot naltrexone* injection) has profound, life-improving effects on people with an opioid use disorder. It reduces their risk of death, relapse, chance of going to prison, and greatly improves their quality of life. As a result, the cornerstone of the Strategic Plan is increasing access to MAT for individuals in need. The Strategic Plan called for the development of Centers of Excellence to meet that need. These COEs are described more fully in sections below.

Rhode Island supports a model of shared decision making between the individual and their provider. We support the use of FDA-approved medications for the treatment of opioid use disorder including methadone, buprenorphine products, and injectable naltrexone, always in the context of comprehensive clinical and recovery support services. These supports vary based on patient need, but include drug and alcohol counseling, screening and treatment of co-occurring mental and physical health issues, checking of the state prescription drug monitoring data base, toxicology screening, individual and group therapies, peer support services, vocational and educational assistance.

As part of the strategic plan implementation, Rhode Island offers medication-assisted treatment through the combined prison and jail at the Department of Corrections. Governor Raimondo committed \$2 million in the fiscal year 2017 and fiscal year 2018 for medication for addiction treatment (MAT) in the state prison system. All people entering the system are screened for opioid use disorder. Individuals who are awaiting trial are no longer withdrawn from MAT, and those who are opioid dependent and not in treatment are able to be inducted on whichever medication is most appropriate. Sentenced individuals with histories of opioid use disorder are at a significantly increased risk of overdose upon release, so these individuals are also being offered induction on MAT with linkage to care in the community.

With higher vulnerability for overdose, the population of our Department of Corrections needed a particular focus for intervention. Now, Rhode Island has a successful implementation of a comprehensive MAT program in the state correctional system, with over 300 inmates receiving medications for addiction treatment every month. The connection to care in the community, post release is 75 percent. Finally, preliminary findings suggest that there are substantial reductions in overdose mortality for people with recent incarceration. This was an expected outcome, given that dozens of studies indicate that MAT cuts risk of overdose mortality by 50 percent or more. Still, it is remarkable to achieve such enormous impact despite the extraordinarily high risk posed by fentanyl circulating in our communities.

Emergency Department Standards: Leadership from hospitals and emergency departments throughout Rhode Island joined Governor Raimondo’s Overdose Prevention and Intervention Task Force. RI has released a first-in-the-nation set of statewide guidelines to save lives by ensuring consistent, comprehensive care for opioid-use disorder in emergency and hospital settings. Released in March 2017, the standards established a common foundation for treating opioid-use disorder and overdose in Rhode Island hospitals and emergency departments. The standards establish a three-level system of categorization that defines each hospital and emergency department’s current capacity to treat opioid-use disorder. All emergency departments and hospitals in Rhode Island will be required to meet the criteria for Level 3 facilities, or what we collectively feel are the essential components of providing humane and consistent care for people with opioid use disorder treated in Rhode Island. Currently, RI’s hospitals are certified as:

Care New England	Providence VA
Level 1 and 2-Certified	In Process
Level 3-In Review	
Charter Care	South County Hospital
Level 1-Certified	Level 3-Certified
Landmark Hospital	Westerly Hospital
In process	In process
Lifespan	
Level 1-Certified	

RECOVERY

Recovery Coaches in Emergency Departments (AnchorED): In May of 2014, Rhode Island started a pilot program using recovery coaches to respond to overdose survivors while they were receiving treatment in hospital Emergency Departments. On-call coaches respond to overdose survivors and offer support, referrals, resources, family support and training on naloxone. This success of this pilot project supported its expansion to be offered statewide twenty-four hours per day, 7 days per week. These coaches have had great success at engaging clients with an 85 percent follow up rate with treatment and/or recovery support services. This service has provided the state with a wealth of information on the experience of individuals with the healthcare system as well as the addiction treatment system. While engaging with recovery coaches at a crucial point in their addiction, many individuals make the decision that they are ready for treatment—seeing the hope of recovery through shared experience and recognizing their desperate state makes people ready for change.

Anchor MORE: The success of AnchorED spurred the development of AnchorMORE, recognizing that successful consumer engagement does not have to wait for an individual to show up at an ED with an overdose. The Anchor MORE is a community outreach program, placing recovery coaches on the streets to connect with and engage individuals. Anchor MORE currently dispatches these teams of recovery coaches to areas in which individuals are using substances in public places. Anchor MORE teams are also proactively dispatched to certain areas in the state by looking at overdose data and emergency services pick-up data. Both programs connect individuals with recovery coaches—trained peers with lived experience of addiction. Recovery coaches stay actively engaged with individuals after an encounter and connect them to treatment and recovery support services.

Recovery Coaches in the Department of Corrections: The RI Department of Health has a contract with Anchor Recovery to provide peer recovery coaches to inmates prior to release from the Department Corrections, continuing this connection post release. The Anchor Recovery Center offers a “Welcome Home” group to those who participate in this program, maintaining crucial positive support at a critical time.

THE IMPACT OF FEDERAL PROGRAMS, POLICIES AND FUNDING

Revision of Data Waiver Requirements through CARA: Rhode Island is leading the way with the training of medical students, the first of its kind in the country. The 2018 Class of the Warren Alpert Medical School of Brown University, which will graduate next May, will be the first class to participate in a new program to complete the training necessary to qualify for a Drug Abuse Treatment Act of 2000 (DATA 2000) waiver prior to graduation. Once the new graduates receive their full medical license and DEA registration, they can apply for the DATA 2000 waiver and join fellow physicians in the treatment of opioid use disorders using evidence based medicine.

Rhode Island has more than 350 Data-waivered providers, allowing for the treatment of up to 24,735 patients. RI has 20 new data waived prescribers that are mid-level practitioners. At least one of RI's Physician Assistant programs is offering

clinical rotations through RI's Centers of Excellence for treatment of opioid use disorders.

Medication Assisted Treatment—Prescription Drug and Opioid Addiction (MAT-PDOA) Program: This grant program has enabled RI to create and fund Centers of Excellence (COE) for Opioid Use Disorders. Centers of Excellence are the cornerstone of Governor Raimondo's Action Plan, which was created by the Governor's Overdose Prevention and Intervention Task Force.

COEs provide a means of rapid access to treatment for opioid use disorder, provide comprehensive services and work collaboratively with community providers of ongoing treatment for the opioid use disorder once stabilized in the Center of Excellence. This model also provides additional support to community providers—be they physicians or other allied providers, or community treatment programs that may not be equipped to assist a person who experiences relapse to opioid use by re-admitting the person to the Center for any additional stabilization needed. These Centers also serve to assist with the workforce development needs of our state in that these centers provide practical educational experiences in opioid use disorder treatment to community providers and trainees alike. Centers of Excellence are funded through private third party insurers as well as Medicaid. With Medicaid expansion, many more people are able to access Medication Assisted Treatment for opioid addiction. Currently, there are nine operating Centers of Excellence in Rhode Island. The newest COE to open is on the campus of Butler Hospital in Providence and is open 24/7.

State Targeted Response (STR) Grant: The STR has been very impactful in Rhode Island. These funds allowed the state to supplement existing opioid program activities and supports a comprehensive response to the opioid epidemic through integrated planning and monitoring.

Specifically, this one grant:

- Provides five nurse care managers to five high-risk communities to increase the use of MAT in large primary care practices (\$500,000)
- Provides psychiatry services to the Centers of Excellence and the Opioid Treatment Programs to address co-occurring disorders in an under served population (\$500,000)
- Implements the Recovery Housing Pilot with 40 level three beds for those at risk (\$536,825)
- Provides OTPs with fentanyl testing kits for regular screenings to enhance targeted interventions (\$60,000)
- Incentivizes practitioners to become DATA waived (\$75,000)
- Funds local community implementation of evidence based prevention strategies to five at-risk communities (\$240,066)
- Provides naloxone kits to the Department of Corrections and to Rhode Island's Mobile Outreach and Education Program for distribution in targeted at-risk locations (\$99,975)
- Provides added funding to the state's awareness campaign for opioid use disorders (\$50,000)

National Institute on Drug Abuse: Grant awarded to Rhode Island Hospital, working in partnership with the state to develop pharmacy-based MAT provision for maintenance with buprenorphine and naltrexone. This will create and then research the effectiveness of pharmacy management of MAT for people with opioid use disorder, a first in the country that has the potential to expand access to MAT the way that pharmacies have helped to expand access to naloxone across the state.

Coordination Between federal, state and local agencies: The Governor's Overdose Prevention and Intervention Task Force is truly the hub of all activity in the fight against the opioid epidemic. The Task Force includes stakeholders and experts in fields ranging from public health and law enforcement to healthcare, community-based support services, insurance, academia, business, government and more. Family members of those who lost loved ones are also part of the Task Force, and have added an invaluable perspective that we in government and the private sector sometimes miss.

The Task Force was created in August of 15, a Strategic Plan was presented to the Governor in December 2015, an Action Plan was created and released in May 2016, and a Public Awareness campaign was unveiled in June 2016.

Today, Governor Raimondo continues to make turning the tide on the opioid crisis a top priority for her administration. Like so many Rhode Islanders, she has her

own stories of personal connection and loss to the opioid epidemic, and she has encouraged agencies across our state government to be bold, creative, and determined in developing a response to opioid crisis. In July 2017, the Governor used her executive authority to direct state agencies, including the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals, to undertake a series of actions on opioid policy that fit into our core areas of emphasis: prevention, rescue, treatment, and recovery.

On prevention, the Governor's executive order directed Rhode Island agencies to build from existing work that uses opioid prescriber data to target top prescribers of opioids in state and give those providers specific guidance on reducing unnecessary prescriptions, and we are developing creative, data-driven ways to "nudge" people who get opioid prescriptions to properly dispose of excess medication in order to reduce the risks that those prescriptions end up in the wrong hands. On rescue, the Executive Order also pushed agencies to place more naloxone in community settings so that anyone with the proper training can administer the naloxone and reverse the effects of an overdose. All hospitals in Rhode Island are on their way to having a "level of care" designation for opioid use disorder treatment, which guarantees a set standards for opioid use disorder care, regardless of where a patient is admitted in our state.

For treatment and recovery, the Executive Order also asked agencies to hire medical professionals in high-risk communities who will help people get access to long-term treatment and recovery options, including long-term medication assisted treatment, and we continue to remove barriers that stand in the way of linking every Rhode Islander with substance use disorder to a peer recovery coach who can help be an ally and mentor to people in recovery. The Governor's executive order also directed agencies to do more to support Rhode Island's Centers of Excellence on substance use disorder care and treatment, which are integrated facilities that help people get access to acute mental health care and help people develop plans for long-term recovery.

Other initiatives identified in the Executive Order include:

- Working with local law enforcement agencies to implement pre-arrest diversion programs;
- Planning a multi-media education campaign to help parents, youth, and families communicate about addiction and the dangers of opioid use;
- Launching a Family Task Force comprised of the family members of people who have died of an overdose, or who are living with opioid-use disorder;
- Piloting and analyzing programs that encourage disposal of excess opioids to reduce the risk of misuse or diversion;
- Proposing a comprehensive harm reduction strategy aimed at reducing negative consequences associated with intravenous drug use.

Use of Data to Inform Processes

MODE Team: Rhode Island has implemented a Multidisciplinary Review of Drug Overdose Death Evaluation (MODE) Team which combines strategies of "rapid response" with "community intervention." The Team is modeled after the multidisciplinary review processes for child deaths. The purpose of the MODE Team is to gain insight into emerging overdose trends, identify gaps in or opportunities for policy development and prevention programming and inform the distribution of mini—grants to Rhode Island communities for prevention efforts. Data sources come from RIDOH (Medical Examiner reports, Prescription Drug Monitoring Program (PDMP)), BHDDH (substance abuse and mental health treatment episodes), Medicaid (healthcare utilization), and RIDOC (incarceration history and medical records from incarceration). The MODE Team meets quarterly to review these data. Twenty-five MODE Team recommendations have been developed, with nine community-based drug overdose prevention mini-grants distributed thus far.

Surveillance, Response, and Interventions (SRI): This workgroup made up of staff from DOH and BHDDH review overdose information on a weekly basis. When overdoses exceed a certain threshold, alerts are issued to the community, law enforcement, and health providers.

The Community OverDose Engagement (CODE) Program: CODE was developed in the Spring of 2017. The program calls for the RI Department of Behavioral Healthcare, Developmental Disabilities & Hospitals and the RI Department of Health to meet with communities identified via data tracking whose overdose activity repeatedly exceeds established thresholds.

Because each community faces unique challenges in tackling the opioid epidemic, they must tailor their responses accordingly. To be successful, a collaborative approach is necessary in which all stakeholders have a significant say in the strategy, significant responsibility for implementing its components, and significant accountability for monitoring and demonstrating its effectiveness. Policies, programs, and initiatives should not be developed and implemented on the basis of intuition, anecdote, emotion, or political expediency. Instead, they should be informed by data and evidence. They should be designed to ensure that we bring an end to this epidemic via a compassionate approach based in good science and health-based solutions, rather than a combative approach based in fear, stigma, shame, and despair.

The goal of CODE is for each community to implement a comprehensive approach that addresses the problem from all angles: prevention, overdose reduction, treatment and recovery support. Communities are encouraged to utilize data-informed and evidence-based practices when designing and implementing policies and programs.

Results:

This week, RI has released a press release announcing a 10 percent reduction in overdose rates in 2017. We are cautious to be overly optimistic in the face of a dynamic epidemic, but can't help but believe that we are perhaps seeing the results of the implementation of our strategic plan and complementary initiatives. The battle is far from over, and we know we need to press on in every aspect of our efforts, but a glimmer of hope is beginning to be revealed.

Additional ideas for our Federal Partners to consider:

There are numerous opportunities that would help the state's combat this epidemic and I humbly submit a few recommendations:

- An increase in funds is always a tremendous help. While we appreciate the new grants which have been issued, increasing the State's Substance Abuse Prevention and Treatment Block Grant issued through SAMHSA would be the most expeditious process for distributing funds for new initiatives. Block grants provide opportunity for states to tailor interventions to their particular needs. Discretionary grants require significant administrative time and burden to under-resources state agencies, and can delay their ability to quickly distribute new funds. Increasing the Block Grant would allow states to discuss project needs with their SAMHSA Project Officer and receive feedback/approval for those needs. Outcomes on all Block Grant dollars are reported to SAMHSA, therefore there will be complete transparency on how the funds are used.
- Eliminate the prohibition for the use of federal funds for treatment of incarcerated adults. RI's experience providing MAT to individuals awaiting trial and for adjudicated individuals prior to release demonstrates the effectiveness of a thoughtful approach which can reduce overdose in a vulnerable population, reduce relapse, encourage recovery and potentially impact recidivism. State general revenue dollars cannot be expected to sustain this effort alone. Engaging federal partners, especially Medicaid, is essential for continuity of care upon release.
- For RI, the continued availability of Medicaid Expansion to support treatment is essential to our success.
- Any federal initiatives include the involvement of the state agencies. Between the expertise and authority our staffs have within the substance use disorder system, our agencies can help to chart the right course.
- Treatment for substance use disorders leads to recovery. Access to the treatment has been advanced by Medicaid expansion. Continuing to support funding for Medicaid expansion to single adults with low incomes is essential to helping more people recover from substance use disorders.
- Many individuals living with substance use disorders do not have access to transportation. Permitting mobile methadone or buprenorphine provisions would eliminate that barrier and make treatment more accessible. In addition, expanding DATA waiver permissions to pharmacists and permitting the dispensing of methadone from pharmacies would greatly augment the country's treatment capacity in short order.
- Workforce development in the field of substance use disorders is crucial with a standardized certification program to license workers across all states. If this were coupled with a loan forgiveness program, the workforce could grow to the numbers needed.

- With elder opioid addiction on the rise, parity for Medicare clients would be welcomed by all.
- Repealing the Institution for Mental Disease (IMD) exclusion would allow for meaningful behavioral health care to those who present with a substance use disorder, truly allowing every door to be the right door.

Conclusion: I appreciate the opportunity to present testimony before the Committee. Rhode Island has lost too many lives to drug overdoses, coming from every community in the state. Our work is focused on saving lives. I encourage the Committee and Congress to work with the NGA, NASADAD and ASTHO as well as other partners to leverage the collective knowledge and expertise of State Alcohol and Drug Agency Directors and Public Health Departments across the country to help end this epidemic.

[SUMMARY STATEMENT OF REBECCA L. BOSS]

Addiction and overdose are claiming lives, destroying families, and undermining the quality of life across Rhode Island. For over a decade, opioid dependence and accidental drug overdose have been growing problems across the United States, and Rhode Island has been one of the hardest hit. Over the last 5 years our small state has lost more than 1,200 people to drug overdoses, coming from every community in the state.

Our work must be focused on saving lives. RI Governor Gina Raimondo recognized this and soon after her election in 2015, she knew the state needed a focused, state-wide strategy to evaluate, prevent, and successfully intervene to reverse the overdose trends. She realized the scope of the problem had underlying issues, factors and consequence, we needed a new approach to combat this epidemic. Clearly, something different had to be created and implemented.

Governor Raimondo established the Governor's Overdose Prevention and Intervention Task Force naming the Directors of BHDDH and the Department of Health (DOH) as Co-Chairs. The Task Force included stakeholders and experts in fields ranging from public health and law enforcement to healthcare, community-based support services, insurance, academia, business, government and family members of those who lost loved ones. The Task Force soon became the hub of all activity in the fight against the opioid epidemic.

The Task Force created a Strategic Plan for Addiction and Overdose and recommended numerous strategies within four areas: prevention, rescue, treatment and recovery. The data-driven plan was created and soon after, with the help of Brown University a website was created (www.preventoverdoseri.org) where all efforts are tracked in a public and transparent fashion.

The work of the Task Force along with the impact of federal programs, policies and funding, as well as the use of data to inform processes, Rhode Island is doing a tremendous amount of work and brings a unique perspective in the fight to end this epidemic.

The CHAIRMAN. Thank you, Ms. Boss.
Ms. Magermans, welcome.

STATEMENT OF ANDREA MAGERMANS

Ms. MAGERMANS. Thank you. Good morning, Chairman Alexander, Members of the Committee. Thank you for the opportunity to testify about the Wisconsin Prescription Drug Monitoring Program as part of Wisconsin's efforts to combat the opioid crisis.

My testimony will focus on the creation and operation of the Wisconsin Enhanced Prescription Drug Monitoring Program, which was transformed to optimize its utility as a tool to address this epidemic.

Today I would like to highlight how the Wisconsin ePDMP is unique as a clinical health care tool, a prescribing practice assessment tool, an interdisciplinary communication tool, and a public health tool.

As a clinical health care tool, the Wisconsin ePDMP includes an enhanced user interface with a patient prescription history report that was designed to bring the most relevant information to the immediate attention of the user. This includes alerts informing providers of concerning prescription patterns or potential harmful interactions such as an opioid level over 90 morphine milligram equivalence, concurrent opioid and benzodiazepine prescriptions, or multiple prescribers or pharmacies.

Alerts can also be added by prescribers to indicate patients who are on pain or addiction agreements. The alerts also notify providers of law enforcement-entered reports.

Graphics on the patient report can help a prescriber quickly look for overdose risk factors or identify indications of a patient who obtains controlled substance prescriptions from multiple providers or who travels long distances to obtain controlled substance prescriptions. One-click access to a prescription history report is available through direct integration with electronic medical records.

Through the direct EMR integration, a prescriber can click on a button within the patient's medical record to retrieve the patient's PDMP report within seconds. The prescription history report that is viewable is the same report that the provider would see when logging into the Wisconsin ePDMP. That way, a provider gets the benefits of the analytics and visualizations that are part of the re-designed patient prescription history report.

As a prescribing practice assessment tool, the Wisconsin ePDMP allows prescribers to evaluate their own prescribing practices in relation to other prescribers in their specialty. The report shows prescribing volume by drug class and the average number of doses per prescription for the same drug classes both in relation to other prescribers of the same specialty. Those who oversee prescribers are also able to access prescriber metrics reports through a new and legislatively required medical coordinator role in the Wisconsin ePDMP.

As an interdisciplinary communication tool, the Wisconsin ePDMP includes reports that law enforcement agencies are required by law to submit in Wisconsin about suspected opioid-related overdose events, suspected violations of the Controlled Substances Act involving prescription drugs, and stolen controlled substance prescription incidents.

The Wisconsin ePDMP then disseminates the reports to relevant users. This facilitates communication between law enforcement and health care professionals, and gives health care professionals a more complete picture of their patients' controlled substance prescription history to support more informed prescribing treatment and dispensing decisions.

As a public health tool, statistics are made publicly available via the Public Statistics Dashboard, which provides interactive data visualizations about the controlled substance prescriptions dispensed in Wisconsin, law enforcement reports submitted to the ePDMP, and the use of the ePDMP by health care professionals and others.

The efforts that were made to enhance the Wisconsin ePDMP have already had a large impact. Prior to January 2017, health care users made approximately 4,800 patient queries per day. Cur-

rently, health care professionals perform anywhere from 25,000 to 35,000 queries per day. With the increased usage of the Wisconsin ePDMP due to a requirement for prescribers to review PDMP records before writing controlled substance prescriptions, the number of prescriptions and doses dispensed in Wisconsin has decreased.

Even more striking is the coinciding decrease in the number of patients whose prescription history meets the criteria for data-driven alerts in the Wisconsin ePDMP system. The total number of concerning patient history alerts dropped by close to 30 percent between January and September of this year, and specifically the number of multiple prescriber pharmacy alerts dropped by nearly 50 percent.

The Wisconsin ePDMP is a successful tool because of the unique level of involvement of stakeholders and subject matter experts in the process to develop the enhanced PDMP application. Because the goal was to meet the users' needs for efficient, accurate, and actionable data, a concerted effort was made to include user and stakeholder engagement at every step of the development of the new system.

The Department of Safety and Professional Services was recently awarded a Harold Rogers PDMP grant to continue enhancing the Wisconsin ePDMP, and the grant project will be a continuation of this collaborative model by working to implement user-led enhancements.

The development of the Wisconsin ePDMP would not have been possible without interagency collaboration and grant funding from federal partners. DSPS is grateful for the federal grant awards it has received from SAMHSA, the Harold Rogers PDMP Grant Program, and the CDC, in partnership with the Wisconsin Department of Health Services.

Thank you again for the opportunity to share this information with you about the Wisconsin ePDMP's role in addressing the opioid crisis in Wisconsin, and I will be happy to answer your questions.

[The prepared statement of Ms. Magermans follows:]

PREPARED STATEMENT OF ANDREA MAGERMANS

Chairman Alexander, Ranking Member Murray, and Members of the Committee, thank you for the opportunity to testify about the Wisconsin Prescription Drug Monitoring Program as part of Wisconsin's efforts to address the opioid crisis. I am Andrea Magermans, Managing Director of the Wisconsin Prescription Drug Monitoring Program (WI PDMP) in the Wisconsin Department of Safety and Professional Services. My testimony will focus on the creation and operation of the Wisconsin *Enhanced* Prescription Drug Monitoring Program (WI ePDMP) as a clinical healthcare, public health, and public safety tool. The WI PDMP was recently transformed to optimize its utility as a tool to address this epidemic.

Overview of WI PDMP

I have been involved with the WI PDMP since it became operational in 2013 as a tool to help promote the safe prescribing and dispensing of opioids and other controlled substance prescription drugs. State PDMPs are widely recognized as effective tools for combatting the opioid epidemic by helping prevent prescription drug misuse, abuse, and diversion. In its most basic form, the WI PDMP is a statewide data base to which pharmacies and other dispensers submit information about the controlled substance prescriptions dispensed in the state. The WI PDMP operates in accordance with Wis. Stat. 961.385 and Wis. Admin. Code Chapter CSB 4. The Wis-

consin Department of Safety and Professional Services (DSPS) oversees the operation of the WI PDMP in accordance with the policies established by the Wisconsin Controlled Substances Board.

The WI PDMP collects approximately 750,000 dispensing records per month about controlled substance prescriptions in schedules II–V. It then makes the information available to authorized healthcare professionals, law enforcement agents, medical examiners, and State Regulatory Agency employees. De-identified PDMP data is also made available for public health research purposes. The WI PDMP has been successfully sharing data with other states, including its border states, via the National Association of Boards of Pharmacy's Prescription Monitoring Interconnect (PMPi) since October of 13. This means that a WI practitioner who has reason to believe a patient picked up prescriptions in a different state can request records through the WI PDMP from the other state's PDMP, and vice versa.

In 2015, although the WI PDMP had only been operational for several years, the decision was made to enhance and optimize the WI PDMP. Several factors went into the decision to transform the WI PDMP. State legislative requirements were going to demand functionalities for law enforcement and medical coordinator users that did not exist in the original WI PDMP software and that were not available in any other PDMP technology solutions. Further, legislation was going to be implemented requiring prescribers to review patient records in the PDMP prior to issuing a prescription order for any controlled substance medication. The previous PDMP system, although an effective tool, was cumbersome to use and had limited enrollment and utilization. Knowing that the new legislative requirement would increase the number of users and the number of daily patient queries dramatically, it was essential that the enhanced PDMP functionality help overcome the reported barriers to use of the PDMP system that was in place at the time. The goals of the development project were therefore to maximize the WI PDMP's clinical workflow integration, data quality capabilities, and public health and public safety uses. The result was the WI ePDMP, launched in January 2017.

Key Features of the WI ePDMP

Keeping these goals in mind, the development of the WI ePDMP redefined the role of the state's PDMP. The WI ePDMP has been transformed from a prescription tracking tool to a multi-faceted clinical and communication tool that considers the needs of all of its potential users. The WI ePDMP is now a robust, sophisticated clinical healthcare decision support tool, a prescribing practice assessment tool, an interdisciplinary communication tool, and a public health tool.

Clinical Healthcare Tool

As a clinical healthcare tool, the goal of the WI ePDMP is to address controlled substance prescription drug abuse by helping healthcare professionals evaluate their patients' use of controlled substance prescription drugs to make more informed prescribing, treatment, and dispensing decisions. The information available in the WI ePDMP can also facilitate better coordination of care to patients seeing multiple professionals and help identify individuals who may be addicted to prescription drugs and may benefit from referrals to treatment.

The WI ePDMP goes beyond the basics as a clinical healthcare decision support tool. The enhanced user interface has a redesigned patient prescription history report composed of a series of widgets that are designed to bring the most relevant clinical information in a patient's controlled substance prescription history to the immediate attention of the user. This first takes the form of alerts in red at the top of the report. A patient with no concerning history alerts or law enforcement-reported incidents would not have any alert buttons at the top of the report. The alerts inform prescribers of concerning prescription patterns or potential harmful interactions. Analytics of a patient's prescription history determine whether a patient has a daily opioid dose over 90 MME, concurrent opioid and benzodiazepine prescriptions, early refills, multiple prescribers or pharmacies, multiple same-day prescription or dispensing events, or long-term opioid therapy with multiple providers. Alerts can also be added by prescribers to indicate patients who are on pain or addiction agreements; the alerts can thereby facilitate communication among providers and better coordination of care. Further, the alerts are a mechanism for notifying providers of law enforcement reports of suspected opioid overdose events, controlled substance violations, and stolen prescriptions. This is a unique feature of the WI ePDMP that creates a completely different but clinically relevant data field for providers to consider when making prescribing and dispensing decisions. Clicking on any of the large red buttons at the top of the patient report provides more details about the criteria that triggered the alert and education about why that information is concerning. All the possible alerts at the top of a patient's prescription history

report highlight the most relevant and concerning aspects of that patient's prescription history and give a more complete picture of that patient's controlled substance history to support more informed prescribing, treatment, and dispensing decisions.

The use of analytics to provide actionable, meaningful information to healthcare users of the WI ePDMP system goes beyond the concerning patient history alerts at the top of the report. On the patient prescription history report, under any alerts and the patient demographics, a chart graphically shows a patient's opioid and benzodiazepine prescriptions over time by indicating the patient's cumulative morphine milligram equivalent (MME) dosage level as a line in relation to two benchmarks at 50 and 90 MME. According to the Centers for Disease Control and Prevention (CDC), risks for motor vehicle injury, opioid use disorder, and overdose increase at higher opioid dosages. Patients with 50–99 MME per day have 2x–5x the overdose risk as someone with 1–19 MME per day. Patients with more than 100 MME per day have up to 9x the overdose risk as someone with 1–19 MME per day.¹ An explanation of the risk factor when a patient's level is above 50 or 90 is included right on the chart, and shading on the chart shows the additional risk factor of concurrent benzodiazepine and opioid prescriptions because, according to the CDC, concurrent use of an opioid and a benzodiazepine is likely to put a patient at greater risk for a potentially fatal overdose.² This visualization provides education about safe prescribing practices and can help a prescriber quickly look for overdose risk factors prior to prescribing a controlled substance to a patient.

Each patient report also includes a map widget that shows a visual depiction of the patient's controlled substance prescription history. This quick snapshot can help a provider identify indications of a patient who obtains controlled substance prescriptions from multiple prescribers or pharmacies or who travels long distances to obtain controlled substance prescriptions. Clicking on prescriber, dispenser, and patient icons on the map provides information about the name and the address of the individual or entity at that location. The map can therefore also facilitate communication among providers.

Below the widgets in a patient prescription history report is a table of the patient's controlled substance prescriptions. The table includes information about the prescription drug, the quantity dispensed, the refill status, the date prescribed and date dispensed, the prescriber name and location, the dispenser name and location, the patient's name and address as they appear on the prescription record, and the method of payment the patient used when picking up the prescription. The table can be searched, and it can be exported for further manipulation.

A lot of collaborative effort went into the design of the prescription history report to ensure the report met the needs of the prescribers and others who would be using the report as a clinical decision making tool. Before the WI ePDMP was launched in January 2017, prescribers, pharmacists, and other potential WI ePDMP end users reviewed designs and provided feedback about the redesigned report. The revamped report is only effective, however, if it is easy to access; efforts were therefore also made to make the site easier to use. The number of clicks required to access a patient report was reduced significantly compared to the previous PDMP system, the registration process was streamlined, and a responsive design was used so that the site and the patient reports render nicely on mobile devices. To further improve access to patient prescription histories, the WI ePDMP includes a patient panel which shows prescribers a list of patients to whom they have recently prescribed controlled substances. The list is searchable and sortable, and, once the desired patient name is found, it provides one-click access to the patient's prescription history report.

The ultimate expression of one-click access to a patient's record in the WI ePDMP is through direct integration with electronic medical records (EMR). There are currently eight health systems live in WI with a direct EMR integration with the WI ePDMP, and several other systems have signed contracts to obtain the service and are testing the connection. Through the direct EMR-WI ePDMP integration, a prescriber can click on a button within the patient's medical record in the EMR platform to retrieve the patient's PDMP report within seconds. The provider does not have to log out of the EMR and log into the PDMP, nor does the provider have to enter the name and date of birth of the patient. What is more, the patient prescription history report that is returned to the provider is the same report that the provider would see when logging into the WI ePDMP website and looking up a patient, including the alerts and visualizations. That way, a prescriber gets the benefits of the analytics and visualizations that are part of the redesigned patient prescription

¹<http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>

²<http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>

history report, regardless of how the report was accessed. This type of integration was only possible because Wisconsin developed its own unique, homegrown PDMP platform.

Prescribing Practice Assessment Tool

The only functionality that is currently available to users through the EMR integration is the review of a patient's prescription history report. In order to access other functionalities, a user must log into the WI ePDMP website. Users of the EMR integration are required to be registered with the WI ePDMP, so they are still able to log into the website to benefit from the additional functionalities. One of the functionalities available to prescribers is the review of their own prescribing practices through the Prescriber Metrics Report. In this self-assessment tool, prescribers can evaluate their own prescribing practices in relation to other prescribers in their specialty. The report includes a table showing all the controlled substance prescriptions that are attributed to a prescriber's DEA number in order to help prescribers look for unauthorized use of their DEA number. The report goes beyond just presenting a simple table, however. Indeed, located above the table on the report is a series of graphics showing prescribing volume by drug class and the average number of doses per prescription for the same drug classes. The values for a given prescriber are shown in relation to other prescribers in the same specialty area. The report also shows the number of patients the prescriber has who meet the criteria for the concerning patient history alerts or about whom law enforcement agencies have submitted violation, overdose incident, or stolen prescription reports. Prescribers also have insight into the total number of controlled substance prescriptions they have written compared to the number of patient queries they or their delegates have performed. This gives prescribers a basic estimated indication of whether they are adhering to the requirement to review PDMP records before writing controlled substance prescriptions. For more details about their and their delegates' use of the PDMP system, prescribers can also access WI ePDMP usage audit trails when logged into the WI ePDMP website. The knowledge gained by prescribers through these self-assessment functionalities empowers prescribers to maintain safe prescribing practices.

Furthermore, Medical Coordinator users of the WI ePDMP can encourage prescriber accountability by assessing the prescribing practices of the prescribers they oversee. The WI ePDMP medical coordinator role was created pursuant to 2015 Wisconsin Act 266, which requires the WI ePDMP to disclose information to a person who medically coordinates, directs, supervises, or establishes standard operating procedures for a practitioner if the person is evaluating the job performance of the practitioner or is performing quality assessment and improvement activities, including outcomes evaluation or the development of clinical guidelines. A new role was developed for these purposes, and an individual can register to become a Medical Coordinator user. Medical Coordinators have limited functionality that allows them to manage lists of the prescribers they oversee and view the Prescriber Metrics Report for the individual prescribers. Medical Coordinators do not have access to personally identifiable data, so they do not see the complete prescribing history of the prescribers. Rather, they see the metrics about prescribing volume by drug class. The Medical Coordinator functionality is currently being enhanced to respond to feedback from the Medical Coordinator users of the system. A future release of the Medical Coordinator role will allow an easier comparison among providers that a Medical Coordinator oversees.

Interdisciplinary Communication Tool

Since March 2016, law enforcement agencies have been required to submit information to the WI PDMP about specific events, and the WI PDMP has been required to disseminate the information to relevant PDMP users. The previous PDMP system in Wisconsin did not allow this functionality, so part of the redesign was to incorporate this functionality in a meaningful way. The WI ePDMP includes a secure login for law enforcement employees and allows them to submit reports about suspected opioid-related overdose events, suspected violations of the controlled substances act involving prescription drugs, and stolen controlled substance prescription incidents. The reports are reviewed by PDMP administrative staff to ensure they are attributed to the correct patient in the WI PDMP data base and are relevant to the type of report submitted. The alerts themselves contain a disclaimer stating that "Law enforcement agencies are required by Wis. Stat. 961.37 to submit reports based on 'reasonable suspicion' or 'belief.' The alert does not necessarily mean that the individual was arrested, convicted or is guilty of any violation of criminal law." Once the submissions are processed, they are disseminated to relevant WI ePDMP users in two ways. Prescribers who have prescribed to the pa-

tients in the incidents receive emails indicating that they have a patient about whom a law enforcement report has been submitted. They then need to log in and check their alert tab to view the details of the alert, including the contact information of the submitting law enforcement agency to request more information about the incident, if desired. The report is also displayed as an alert at the top of a patient prescription history report for healthcare professionals who are accessing the PDMP record of the patient in question prior to prescribing to, dispensing to, or treating the patient. The providers therefore have a more complete picture of the patient's involvement with controlled substances and can make better-informed prescribing, dispensing, and treatment decisions. The WI ePDMP thus functions as a communication tool between law enforcement and healthcare professionals. The reports submitted by law enforcement are also tracked for public health reporting purposes.

Public Health Tool

Another unique feature of the WI ePDMP is the Public Statistics Dashboard, which provides interactive data visualizations about the controlled substance prescriptions dispensed in Wisconsin, the law enforcement reports submitted to the WI ePDMP, and the use of the WI ePDMP by healthcare professionals and others. The Public Statistics Dashboard was developed as part of a Harold Rogers grant project with the intent of providing statewide and county-level data to the public. Previously, DSPS created quarterly statistics sheets with basic dispensing information and a heatmap showing the density of controlled substance prescriptions dispensed in Wisconsin. The Public Statistics Dashboard makes similar information available in an interactive format and includes additional statistics, many of which are available for specific counties. The WI ePDMP also provides a unique registration and login functionality for researchers, who can upload information about the studies they are undertaking and retrieve de-identified data sets. The WI ePDMP thereby supports public health research on trends in dispensing of opioids and other prescription controlled substances.

Impact and Effectiveness of the WI ePDMP

Many of the statistics available on the Public Statistics Dashboard show that the efforts that were made to enhance the WI ePDMP have already had a large impact. Before the launch of the WI ePDMP in January 2017, there were approximately 19,000 registered healthcare users in the previous PDMP system. All users had to re-register in the WI ePDMP, which is why efforts were made to streamline the registration process. The process proved easy for many users, some of whom even reported that they completed registration within a matter of seconds during a patient encounter. By March 30, 2017, there were over 31,000 registered healthcare users, and there are currently nearly 42,000 registered healthcare users of the WI ePDMP. The increased usage of the WI ePDMP is also reflected in the number of daily patient queries made by healthcare professionals. Prior to January 2017, healthcare users made approximately 4,800 patient queries per day, on average. In anticipation of the requirement for prescribers to review patient records in the WI ePDMP that went into effect on April 1, 2017, there were 17,489 patient queries made by healthcare professionals in 1 day. By late August 2017, there were as many as 35,000 patient queries made in a day. Currently, healthcare professionals perform an average of over 20,000 patient queries per day, with weekday numbers ranging from 25,000 to 35,000 daily patient queries, and weekend numbers remaining under 5,000 patient queries per day.

Beyond the increased registration and utilization of the WI ePDMP system, it is possible to see the effects of the WI ePDMP on prescribing practices. It is important to note that the WI ePDMP is just one part of the State of Wisconsin's efforts to promote safe prescribing of controlled substances, so the changes noted cannot solely be attributed to the WI ePDMP. Nonetheless, the number of opioid prescriptions and doses dispensed in WI has decreased significantly from January 2016 through June 2017. Data from the WI ePDMP show that 175,269 fewer opioid prescriptions were dispensed from April 1, 2017 to June 30, 2017, compared to the first quarter of 2016, a 14.1 percent decrease. This equates to 13 million fewer doses dispensed, a 16.4 percent decrease. Furthermore, there has been a dramatic decrease in the number of patients whose prescription history meets the criteria for the data-driven concerning patient history alerts in the WI ePDMP system. The total number of concerning patient history alerts dropped by close to 30 percent from January 2017 to September 2017. The decrease is particularly noticeable for the number of patients with multiple providers or pharmacies. The analytics for this type of alert were applied to data from previous years, and a significant change can be seen in February 2017, right after the launch of the WI ePDMP. Prior to January 2017, there were

consistently over 21,000 alerts per month. This number dropped below 21,000 in February 2017. Another steady decrease began in April of 17, when the requirement for prescribers to review patient records in the WI ePDMP went into effect. The number of alerts in April 2017 was less than 19,000, and by September 2017, the number had dropped below 11,000. From January 2017 to September 2017, the number of multiple prescriber or pharmacy alerts dropped by nearly 50 percent, from 21,088 in January to 10,264 in September. Part of this change is likely due to the greater number of prescribers accessing the WI ePDMP because of their requirement to review. Beyond the number of prescribers who are accessing the WI ePDMP, however, this decrease can also be considered an indication of the effectiveness of the WI ePDMP because it is based on a specific report element that is presented back to end users. End users are alerted to high patient MME, multiple provider episodes, and opioid and benzodiazepine prescriptions overlaps, as well as overdose events a patient may have been involved in. It appears that the analytics going into the alerts and the way the relevant information is being presented to the end users is changing prescribing behaviors.

Development Process

Beyond the unique key features of the WI ePDMP, the WI ePDMP is also unique because of the level of involvement of stakeholders and subject matter experts in the process to develop the enhanced PDMP application. The project goal was not only to address shortcomings of previous system, but also to reimagine the role of the system in addressing opioid crisis. The strong support for the project came from agreement among stakeholders, legislators, and administration that the epidemic required a strong response. Because the goal was to meet the users' needs for efficient, accurate, and actionable data, a concerted effort was made to include user and stakeholder engagement at every step of the process. This meant that there was subject matter expert and user review and involvement during the scoping, designing, development, and testing of the new application. DSPPS collaborated with professional associations to identify subject matter experts and potential users who were regularly involved in continual feedback loops. The development process was iterative, with 2-week development cycles. Users would review designs and provide feedback; the feedback would then be implemented in the development of the application. The iterative improvement process continued throughout 2016 before launching the new PDMP system and still continues to this day as informed by feedback from actual users in the field. One example of the impact of continued feedback loops on the functionality of the WI ePDMP system decreased the number of clicks to get to get to a patient's record by suggesting that the cursor on a search page be defaulted to the first name field. The suggestion was made by multiple users, and the change was subsequently implemented. This small change not only improved the user experience with the WI ePDMP but also showed the end users that they are an important part of the development and success of the system. The increased user buy-in has given users a sense of pride and ownership, which has led in part to the success of the WI ePDMP. Prescribers in particular are beginning to see checking the PDMP as something more than just a requirement; they are recognizing it as a useful clinical tool and making suggestions to continue to make it better. DSPPS was recently awarded a Harold Rogers PDMP grant to continue enhancing the WI ePDMP, and the grant project will be a continuation of this collaborative model by working to implement user-led enhancements.

The development of the WI ePDMP would not have been possible without inter-agency collaboration and grant funding from federal partners. DSPPS is appreciative of the opportunities that have been afforded to it through federal grant awards from the Substance Abuse and Mental Health Services Administration (SAMHSA), the Office of Justice Programs in the Bureau of Justice Assistance at the U.S. Department of Justice, and the CDC. The SAMHSA grant allowed DSPPS to implement a previous PDMP-EMR integration and work toward the current direct EMR-PDMP integration model. DSPPS received two Harold Rogers PDMP Enhancement Grants in 2014 and 2015, first to build the Public Statistics Dashboard, which was originally envisioned as a stand-alone website along side the previous PDMP system, and later to build the WI ePDMP. Grant funding from a CDC Drug Overdose Prevention Grant in partnership with the Wisconsin Department of Health Services further supported the development of the WI ePDMP.

Lessons Learned/Recommendations

The involvement of PDMP administrators, subject matter experts, and potential WI ePDMP users at every step of the development process was critical to the success of the WI ePDMP. The administrators of other State PDMPs have shown a keen interest in learning about and from the experience of developing the WI

ePDMP, not only from a technology perspective but also from a project methodology perspective. Collaboration among PDMP administrators should be encouraged by providing opportunities for PDMP administrators to meet, discuss challenges, and learn from each other's experiences. It is difficult to know the types of functionalities to strive for without first understanding the realm of possibilities by knowing about what is going on in other states. The sharing of actual PDMP technology could also be facilitated through the encouragement of open-source PDMP software solutions. The WI ePDMP has also been successful because of the way it redefined the role of the State PDMP and took bold steps to transform the PDMP system to meet the needs of those who use it. This type of innovation should be encouraged but is sometimes stifled because of a lack of awareness of possibilities. In general, states are very appreciative of grant funding opportunities to improve their PDMP; however, they may be tempted to defer to the use of grant dollars for known solutions or vendors if they do not have the drive, awareness, and support to innovate. In the case of the WI ePDMP, innovation led to a successful home-grown solution that is tailored to the situation in WI. Furthermore, the involvement of PDMP administrators at every step of the development process proved invaluable in WI, but this involvement is not always the case, especially when funding involving a state's PDMP is awarded to an agency that does not house the state's PDMP. Wisconsin has been fortunate to be able to collaborate closely with the Wisconsin Department of Health Services to enhance the WI ePDMP as part of a CDC grant. Funding opportunities that involve a state's PDMP should require that PDMP admins be directly involved in the projects.

Conclusion

Thank you again, Chairman Alexander, Ranking Member Murray, and Members of the Committee, for the opportunity to share this information with you about the WI ePDMP's role in addressing the opioid crisis in WI. The transformation of the WI ePDMP into a robust clinical decision support tool has been well received by the medical community in WI. The success of the WI ePDMP as a tool to help combat the opioid abuse epidemic would not have been possible without the involvement of stakeholders and users throughout the development process. The collaborative nature of the WI ePDMP development project, including the involvement of PDMP administrative staff, interagency support, and federal grant funding, has led to impressive results and has set the stage for continued enhancements to the WI ePDMP based on user feedback to ensure that it remains an effective tool in the State of Wisconsin's efforts to combat the opioid crisis.

[SUMMARY STATEMENT OF ANDREA MAGERMANS]

Chairman Alexander, Ranking Member Murray, and Members of the Committee, thank you for the opportunity to testify about one part of Wisconsin's efforts to address the opioid crisis. My testimony will focus on the creation of the Wisconsin Enhanced Prescription Drug Monitoring Program (WI ePDMP) to optimize its utility as a clinical healthcare, public health, and public safety tool. The development of the WI ePDMP redefined the role of the PDMP: it is now a robust clinical healthcare decision support tool, a prescribing practice assessment tool, an interdisciplinary communication tool, and a public health tool.

As a clinical healthcare tool, the WI ePDMP includes an enhanced user interface and a redesigned patient prescription history report that is designed to bring the most relevant clinical information in a patient's controlled substance prescription history to the immediate attention of healthcare users of the WI ePDMP.

As a prescribing practice assessment tool, the WI ePDMP allows prescribers to evaluate their own prescribing practices in relation to other prescribers in their specialty through the Prescriber Metrics Report. The knowledge gained by prescribers through these self-assessment functionalities empowers them to maintain safe prescribing practices. Those who oversee prescribers are also able to access Prescriber Metrics Reports through a new Medical Coordinator role in the WI ePDMP.

As an interdisciplinary communication tool, the WI ePDMP includes reports submitted by law enforcement about suspected opioid-related overdose events, suspected violations of the controlled substances act involving prescription drugs, and stolen controlled substance prescription incidents and disseminates the reports to relevant WI ePDMP users. It facilitates communication between law enforcement and healthcare professionals and gives healthcare professionals a more complete picture of their patients' controlled substance history to support more informed prescribing, treatment, and dispensing decisions.

As a public health tool, statistics are made publicly available via the Public Statistics Dashboard, which provides interactive data visualizations about the controlled substance prescriptions dispensed in Wisconsin, the law enforcement reports submitted to the WI ePDMP, and the use of the WI ePDMP by healthcare professionals and others.

Beyond these key features, the WI ePDMP is unique because of the level of involvement of stakeholders and subject matter experts in the process to develop the enhanced PDMP application. Because the goal was to meet the users' needs for efficient, accurate, and actionable data, a concerted effort was made to include user and stakeholder engagement at every step of the process.

The CHAIRMAN. Thank you, Ms. Magermans.
Secretary Tilley, welcome.

STATEMENT OF HON. JOHN C. TILLEY

Secretary TILLEY. Thank you, Chairman, for your welcome again. Thank you for that. I want to say what an honor it is to be here, and also to say to you this is heavy stuff. But if I may just take a moment, Chairman, and say that growing up in West Kentucky, very near where Senator Paul—and thank you for that nice introduction, Senator. I've seen your passion firsthand for reform, and your intellect on these issues is unquestioned. But he knows how closely we live to Tennessee, and also how closely we are aligned with the national media.

Many of my family members back in the day from Kentucky went to the polls trying to vote for the Chairman, Lamar Alexander, because of that. Also we were readers of your little plaid book, everything you need to know. It's kind of like Kinder contained in this book. It's certainly a Bible for us, and thank you for that. If you think that's pain, it certainly is.

The CHAIRMAN. You may be the best witness we've had in years.
[Laughter.]

Secretary TILLEY. Thank you. Goodnight. I've had a great run.
[Laughter.]

Secretary TILLEY. Again, it is such heavy stuff. During the course of debates we had over 3 years to come to what became known as the heroin bill in Kentucky, Senator, as you remember, we kept the North Star with us in Kentucky, a young man by the name of Wes Jenkins, who at 12 years old was part of a Little League World Series championship team from Louisville. Not often do American teams win the Little League World Series, and certainly not from Kentucky, a smaller state like ours.

But, Senator, you remember that day. I remember the last pitch and seeing them pile on one another, beating Japan that day. They were not favored to win.

Ten years later, Wes Jenkins died of an overdose, the same story. He went for oral surgery when he was playing college baseball, and three stints in rehab later he overdosed the day he stepped out of that third rehab.

We never forgot Wes Jenkins, him being also the nephew of one of my colleagues in the House and Senate.

We worked together, put down any partisanship, no room for that, locked arms and got some good things done. I think without the help of the Federal Government, we could not have done what we've done in Kentucky.

Let me start with our Department of Corrections response. Make no mistake, this opioid pandemic—it's no longer an epidemic—has had an amazing, incredible negative impact on our criminal justice system. It's a public health nightmare being handled in courtrooms and jails and prisons, and that is part of the problem. We don't have time to address all that today.

One of the things we're most proud of is the fact that we've increased treatment by 1,100 percent thanks to some of the resources you've given us. The ROI on treatment behind our walls is about almost five dollars. It cuts recidivism, cuts rates of mental illness. We track these offenders once they leave our prisons and jails. In terms of getting to that ROI, that return on investment, it's money well spent.

We also have something that's been really chronicled nationally, a pilot program using naltrexone or vivitrol. We give a shot 30 days before release, we give a shot the day of release, and give a shot 30 days after, with the injection being every 28 days or 30 days to battle this incredible chronic brain disease, and we have seen great early results from that program. The return on investment, even with the expense of that drug, is very high. The return is very high. Again, we received a lot of attention for that and would like to expand that. We're doing that as we speak.

We're also proud of our coordination with law enforcement and public health. The Cabinet for Health and Family Services, that is unprecedented now in our state. The CDC in their recommendations and their money has allowed us to track overdoses in ways with law enforcement we never have.

We've also been able to collaborate for training protocols for physicians and nurses and dentists on many prescribing practices that we know are very critical to this problem.

We've also been able to up the distribution of naloxone in ways that have never been seen, and I would submit to you that we need over-the-counter naloxone. The only use we have for that is to battle back and reverse these overdoses, and so we do that.

My good friend Rebecca, we've worked together for years now, and we are using now the Rhode Island model in Kentucky. I'm really proud to report—and what I mean by that is the one she spoke of using peer specialists in the emergency departments, and also using bridge clinics at the same time. It's an ambitious goal to reach, but we've done that. In the first week we used it at the University of Louisville just recently, Senator, we had the first five people to walk in and overdose. By the way, we had 13,000 overdoses in Kentucky emergency rooms alone in 2016. But the first five who walked in, four entered treatment. That's a great sign, and that actually follows the national trend line from Rhode Island. Eighty percent will do that.

Before that model, we lost 13,000 opportunities to link somebody to treatment who came in with an overdose. We lost 1,404 Kentuckians. As you know, the numbers are staggering. In the last 10 years, or at least between 2006 and 2016, we lost 471,000 Americans. That can be lost.

Again, I see my time is up. There is too much to cover. I hope that the questions come fast to us because we would love to cover

some of the unique things and innovative ways we're attacking it in Kentucky.

Thank you, Chairman.

[The prepared statement of Secretary Tilley follows:]

PREPARED STATEMENT OF JOHN TILLEY

Kentucky's Crisis

2016 proved to be a deadly year for the citizens of the Commonwealth of Kentucky, who saw 1,404 of their family members, friends, and neighbors die from drug overdoses. Since 2012, drug overdoses have accounted for more accidental Kentucky deaths than motor vehicle crashes. The leading culprit, fentanyl, a potent synthetic opioid, was detected in 47 percent of overdose deaths, up from 34 percent in 2015. According to the Kentucky State Police, there was a 6,000 percent increase in laboratory samples submitted to the Central Forensic Laboratory testing positive for fentanyl from 2010 to 2016. Last year, in addition to fentanyl, the Kentucky State Police reported samples from 10 different counties testing positive for carfentanil, a fentanyl derivative that is 100 times more potent than fentanyl itself. Fentanyl continues to engulf Kentucky as the Kentucky State Police report that the number of submissions testing positive for fentanyl in the first two quarters of 2017 has already exceeded the 2016 total. The 2017 samples also included several potent fentanyl derivatives such as cyclopentylfentanyl, acetylfentanyl, butyrylfentanyl, acrylfentanyl, furanylfentanyl, and carfentanil. According to Appalachia HIDTA's 2018 Threat Assessment, Kentucky remains particularly vulnerable to drug trafficking organizations because of its central geographical location and many interstate highways.

In addition to increased rates of substance use disorders and overdose deaths, the opioid epidemic has also brought the threat of blood borne pathogens such as viral hepatitis and human immunodeficiency virus (HIV). According to the Centers for Disease Control and Prevention, 54 of the top 220 counties most vulnerable to a rapid outbreak of HIV are located in Kentucky. In response to the devastating HIV outbreak in nearby Austin, Indiana in 2014, Kentucky became the first southern state to authorize the creation of syringe exchange programs, which are designed to reduce the incidence of needle sharing and prevent the spread viral hepatitis and HIV. There are currently 41 Harm Reduction Syringe Exchange Programs (HRSEPs) operating across the Commonwealth since the General Assembly granted county officials the power to approve such programs. Aside from HIV, forms of viral hepatitis—such as hepatitis C—also pose a large threat to the residents of Kentucky. From 2008 to 2015, Kentucky had the highest rate of acute hepatitis C infections in the United States.

Department of Corrections Response

The Kentucky Department of Corrections remains the single largest treatment provider in the Commonwealth. In 2004, the department had 475 substance abuse treatment slots available. Today, it has 5,901 treatment slots, representing a 1,100 percent increase since 2004. The substance abuse treatment programs utilize evidence-based cognitive behavioral therapy and therapeutic community models. According to a recent study by University of Kentucky professors, the department's treatment programs resulted in a strong return on investment—\$4.29 of cost avoidance for every \$1 spent in fiscal year 2015. During the 12 months following release, 70 percent of participants were not re-incarcerated, 85 percent maintained housing, and 68 percent were employed at least part-time. The study participants also reported decreased illicit drug use, decreased feelings of serious depression and anxiety, and decreased instances of suicidal ideation.

In 2015, the Department of Corrections began a pilot project aimed at reducing fatal overdoses among inmates released on parole. The department uses a validated risk and needs assessment to target those inmates most vulnerable to overdoses and offer them the chance to voluntarily receive injections of naltrexone, a long-acting opioid receptor antagonist, before they leave prison. Within 24 hours of being paroled, participating inmates meet with social service clinicians at their local Probation and Parole offices for assistance determining health care coverage eligibility and setting up an appointment for the inmate's next naltrexone injection. The initial results from the pilot project have been so promising that representatives from five other states, tribal authorities from Montana, and the U.S. Virgin Islands have observed the program.

Coordination between Public Health and Law Enforcement in Kentucky

The opioid epidemic has demanded intense collaboration between the Kentucky Department of Public Health and the Kentucky Office of Drug Control Policy. Recently, the Department of Public Health contracted with the Kentucky Injury Prevention and Research Center (KIPRC) to provide data analysis and technical support in joint endeavors with the Office of Drug Control Policy. Over the last few years, KIPRC and the Office Drug Control Policy have utilized grant funding from the Centers from Disease Control and Prevention to create the Commonwealth's drug overdose surveillance program. The drug overdose surveillance program compiles data on drug overdose deaths from county coroners, physicians, and the Office of the State Medical Examiner into one data set, which is used to compile a detailed annual overdose death report. In addition to the drug overdose surveillance program, the partnership between KIPRC and the Kentucky Office of Drug Control Policy has also led to the development of training protocols for physicians, nurses, and dentists on appropriate opioid prescribing methods. Thousands of Kentucky law enforcement officers have been trained on the proper treatment of opioid overdoses and the use of emergency naloxone kits thanks to the partnership as well.

21st Century Cures Act Programming

The Office of Drug Control Policy worked closely with representatives from the Cabinet for Health and Family Services to develop a comprehensive strategy for using funds from the 21st Century Cures Act. The Kentucky Opioid Response Effort (KORE) is a multidisciplinary team established to administer the funds granted to the Commonwealth from the Cures Act to bolster evidence-based treatment interventions aimed at reducing the impact and prevalence of opioid use disorder among non-fatal drug overdose survivors, pregnant and parenting women, and incarcerated individuals.

Initiatives aimed at survivors of non-fatal overdoses include the creation of specialized medication-assisted treatment bridge clinic programs and the placement of peer recovery specialists in emergency departments. The specialized bridge clinics initiate a medication-assisted treatment protocol with overdose victims while they are still in hospital in order to stabilize them long enough to obtain treatment in the community. KORE funded one of the first bridge clinics at the University of Louisville's emergency department in partnership with Centerstone, a community mental health center earlier this month. On the first day of operation, peer recovery coaches deployed to the hospital's emergency department contacted five individuals treated for opioid overdoses. Four of the five opioid overdose survivors contacted by peer recovery coaches opted for immediate entry into treatment.

The peer recovery specialist initiative, which was modeled after Rhode Island's Anchor ED program, incentivizes Kentucky hospitals to contract with certified peer recovery specialists who could counsel recent drug overdose survivors while they are still in the emergency department and help them enroll in a treatment program if the survivor chooses treatment in that instance. Some additional funds are being used to distribute naloxone at community awareness events, emergency departments, and syringe exchange programs.

The initiative aimed at pregnant and parenting women will create an integrated continuum of care model, aimed at synchronizing obstetrics care, primary care, medication-assisted treatment provider care, and case management. Once the model is perfected, a training program will be developed and offered to healthcare and treatment providers.

Finally, part of the 21st Century Cures Act funding will be used to create a targeted employment pilot program for state and county inmates reentering society with a history of opioid use disorder. The program will hire employment specialists to assist former inmates in finding and maintaining employment in Northern and Eastern Kentucky, which are two regions that have been most affected by the opioid epidemic.

[SUMMARY STATEMENT OF JOHN TILLEY]

Kentucky's Crisis

- In 2016, Kentucky lost 1,404 citizens to drug overdoses.
- Since 2012, drug overdose deaths have accounted for more accidental Kentucky deaths than motor vehicle crashes.
- Medical examiners detected fentanyl in 47 percent of Kentucky overdose victims in 2016, up from 34 percent in 2015.

- The Kentucky State Police Central Forensic Laboratory has also seen an increase in the detection of potent fentanyl derivatives such as carfentanil and cyclopentylfentanyl.
- Kentucky is at an elevated risk of an outbreak of blood borne pathogens such as HIV and hepatitis C due to unsafe injection practices among those suffering from opioid use disorder.
- According to the Centers for Disease Control and Prevention, Kentucky has 54 of the 220 counties most vulnerable to a rapid outbreak of HIV.

Department of Corrections Response

- The Kentucky Department of Corrections has increased substance abuse treatment slots from 475 in 2004 to 5,901 in 2017, a 1,100 percent increase in treatment capacity.
- According to a recent study, the department's substance abuse treatment program resulted in a \$4.29 cost avoidance for every dollar spent on the program.
- In 2015, the department created a pilot program designed to reduce fatal overdoses among inmates released on parole by providing them the opportunity to receive naltrexone injections prior to release. Preliminary results from the pilot have been so promising, that representatives from five other states, tribal authorities from Montana, and delegates from the U.S. Virgin Islands have observed the program.

Coordination between Public Health and Law Enforcement in Kentucky

- The Kentucky Department of Public Health and the Kentucky Office of Drug Control Policy have collaborated to create Kentucky's drug overdose surveillance system using grant funding from the Center for Disease Control and Prevention.
- The collaboration has also resulted in the development of training protocols for physicians, nurses, and dentists on appropriate opioid prescribing practices.
- Thousands of Kentucky law enforcement officers have been trained to treat opioid overdoses with emergency naloxone kits thanks to the collaboration as well.

21st Century Cures Act Programming

- Pilot sites for the creation of treatment bridge clinics and the placement of certified peer recovery specialists in emergency departments have begun to operate.
- The initiative aimed at pregnant and parenting women will create an integrated continuum of care model, aimed at synchronizing obstetrics care, primary care, medication-assisted treatment provider care, and case management.
- A targeted employment pilot program aimed at state county inmates who have a history of opioid use disorder is being developed for sites in Northern and Eastern Kentucky.
- Additional funds are being used to hold community training sessions and distribute emergency naloxone kits.

The CHAIRMAN. Thank you very much, Secretary Tilley, and thanks for bringing the little plaid book with you.

Secretary TILLEY. I hope it worked. Thank you.

The CHAIRMAN. I'll say to the Senators who have come in, we've had very interesting testimony from four witnesses who are on the front lines of states dealing with opioids, and now we'll go to a 5-minute round of questions. We thank you for the testimony.

We'll begin with Senator Young.

Senator YOUNG. Well, thank you, Chairman. That's a good way for me to step off your lead in there, because Indiana has indeed been on the front lines of this opioid crisis, and I thank all of our witnesses for their testimony and expertise in this area.

I visited with a number of local sheriffs throughout Indiana. I used to represent, in the House of Representatives, Indiana's 9th Congressional District, which included Scott County, Indiana. That

is where Austin, Indiana is located that gave national attention to that county, not in the best way, but they fought their way back and continue to.

Many local sheriffs throughout the state have a strong suspicion that their inmates not only have opioid addiction challenges but also have HIV, Hep C, or TB. But they're left with this moral dilemma. You see, they have a limited budget to take care of their criminal justice matters each year, but they also are supposed to attend to the health care of those individuals. If they test these inmates and identify that they have Hep C, that they have TB and so forth, then that could conceivably and very realistically deplete the entire law enforcement budget they have for a year. These public servants are on the horns of a human rights dilemma.

Director Boss, you've made some suggestions in your testimony about how we can better treat, as a Nation, incarcerated individuals. You also touched on how we can better treat individuals awaiting trial. Would you kindly elaborate on this issue generally and some of the suggestions you have for us?

Ms. BOSS. I would, and thank you for that opportunity. Individuals awaiting trial who are not yet adjudicated are often some of the most complex individuals that we see because they're coming from the street to a center that will house them with the multiple medical issues that you identify, including addiction and in the stages usually of withdrawal when they are opioid addicted.

One of the things we find most helpful is really addressing that health care need. An addiction is a disease, and addiction treatment is a health care issue. Providing medication, as you would for any other health care issue, in alleviating those withdrawal symptoms and providing stability for the individual in their addiction has been very successful.

What we see is individuals sometimes coming in already on medication-assisted treatment. Previously we would withdraw those individuals and put them into withdrawal and then, depending upon the results of their trial, would be released back into the street, now in withdrawal, now sick and looking to use again and very vulnerable because their tolerance level has decreased. The number of overdoses in that population was significant.

Providing them continued medication or, better yet, initiating the medication for individuals who needed it but didn't access it in the community provides that linkage after that brief period of incarceration to the treatment that's needed in the community, and the follow-up rates have been pretty successful. Seventy-five percent post-incarceration without perhaps the requirement of the criminal justice system that they do so is pretty remarkable, including the decrease in the overdose in that population that we have seen is incredible given the decreased tolerance that they had before, no longer that because they're on medication that has stabilized them, and a connection to treatment in the community, with the opportunity now for recovery. Perhaps that criminal justice intervention gave them that opportunity for recovery that they didn't capitalize on in the community.

Senator YOUNG. Well, thank you.

Secretary Tilley, you're our southern neighbor, and you, no doubt, are experiencing very similar situations as we are. Can you

speak a bit about any programs you have in place to get treatment to these incarcerated adults or those who are awaiting trial, get them into treatment in a better spot?

Secretary TILLEY. I think, first of all, I'm not proud to report that we've had to ramp up treatment in our prisons by that 1,100 percent mark. But what we've done to do that is we've collaborated and partnered with our community mental health centers to use intensive outpatient treatment upon release, because that handoff is often, again—it is the most critical time. We've done that.

We are also, as I mentioned—the program we have that uses naltrexone, I didn't have a chance to expand on that. It's not just about the medically assisted component. There is also the holistic component of therapy and a social service clinician on the day that inmate leaves the prison, to lead them to resources in whatever community they're returning to; that's a really critical piece. We've gotten, again, great early numbers on that. We're trying to expand that. It is an expensive program, but it's certainly less expensive than the \$24,000-a-year cost of incarceration and all that comes with that—societal strain, family strain, et cetera.

Many other programs along those lines. The treatment of providers is coming in so fast to our state that that's one of the challenges, to make certain that we get them running as quickly as possible and at the same time not allow fly by-night providers. Only 1 percent of treatment right now is evidence based. That's a challenge for us.

In the interest of time, the last program I might mention again to link people to treatment is this—we have a treatment hotline, but is this peer specialist bridge clinic, because those folks are going to end up in jails and prisons. Clearly, it happens more times than not. To link them to treatment before that criminal justice intervention is critical. Again, returns on investment and as a policy win and a public health win.

Senator YOUNG. Thank you, Mr. Secretary.

A quick observation, Chairman, is that as we consider funding at the federal, state, and local level to address all these things, we're going to have to consider the costs of not doing something, the economic costs, and cost in social services and so forth. We're going to have to constantly keep that in mind, the cost of doing nothing or not doing enough.

Thank you.

The CHAIRMAN. Thank you very much, Senator Young.

We have a lot of Senators here today, so I'm going to try to stick pretty close to the 5-minute limit so everyone will have a chance to ask questions.

Senator KAINE.

Senator KAINE. Thank you, Mr. Chair.

Dr. Abubaker, my questions are mostly going to be directed to you. Talk about the over-prescription problem and the work that you're doing with prescribers. Many of us have worked on bills, some of which were included as part of the Comprehensive Addiction Recovery Act, to set up prescription guidelines around the co-prescription of naloxone, for example. On the Armed Services Committee, I've worked with colleagues there to deal with over-prescription issues within the VA and the DOD hospital system.

But talk about your own work with especially folks in dentistry and your students and what more we can do to curb this over-prescription problem we have in the country.

Dr. ABUBAKER. Thank you, Senator Kaine. I'll just step backward and relate it to prescription or over-prescription.

I went through my dental school education, a good dental school in Pittsburgh, and went through my residency, and the emphasis on prescription or pain management was minimal, not only in dental school and residencies and dentistry but in medicine as well. Pain management is at the core of it, and what we train is really to write a prescription and walk away from the patient.

That model ends up over-prescribing. There are patients who may need only two tablets, and there are patients who may need 50 tablets. We have not had that kind of way of thinking. Prescription writing was a thoughtless, seamless process on the part of both physician and dentist, and that goes back to the lack of knowledge about pain management, acute pain management. I'm specifically talking about acute pain management.

As a result, we standardized that you go to the oral surgeon for wisdom teeth, probably 20 tablets of Vicodin. You go to the orthopedic surgeon, they have a number, and neurosurgeons have numbers, and it's not standardized to the individual situation or an individual patient.

Senator KAINE. The numbers themselves may not be science-or evidence-based at all.

Dr. ABUBAKER. Absolutely. There is no science to it. Clearly, if there is a science, Patient A is not the same as Patient B, whatever way you look at it. As a result, that standardized number that we put in a prescription, it's not a scientific one. As a result, we end up over-prescribing for the most part.

We looked at pain management as 100 percent prescription. We looked at prescriptions for the worst pain. We looked at prescriptions as the only treatment possible. We know now that for some other modalities, including non-pharmacological pain management, that it's good for some individuals but may not be good for others.

The standardization of treatment is the key for this, and I think going back to the education factor—my business is the education business for the last 27 years—we have to go back to the basics. No. 1, pain management, the scientific basis of pain, the lack of standardization or the lack of evidence base, and going back to the risk associated with medication.

I mentioned to you earlier that in some states now the regulation for prescribing includes mandatory discussion with the patient about the risks, possible complications, and how to dispense with the extra medication. Some people got 20 tablets, took 3 tablets, it sat in the cabinet and the grandchild grabbed it.

The fundamental issues; we have to go back to the basics both in medical education, dental education, nursing education to be able to address the foundation, the root of the problem.

Senator KAINE. You testified powerfully that this war on opioids really needs to be a war on addiction, and you have a clinic, the Motivate Clinic, which is designed really to go after the addiction problem. Tell us a little bit about that.

Dr. ABUBAKER. The Motivate Clinic just started actually this year, and part of our legislative and our state effort to combat opioids and addiction in general. But the story used to be in an emergency room, when you come in with an overdose of any drug, you're treated for the overdose, admitted to the ICU, and when you live, they put you back on the street. God knows, maybe a week later, a month later, you come back with the same. There is no organized, systematic way of referring this patient to a specific treatment.

VCU Medical Center developed a process. Now, when a patient comes in with an overdose, after treatment for the overdose, hopefully they survive the overdose, they automatically are referred to a clinic for follow-up and additional treatment down the line in the long term.

Senator Kaine. This is a little bit like what Secretary Tilley was talking about in Louisville, the example that he was using.

One last question, quickly. You also do work at VCU to help addicted pregnant moms break their addiction. Talk a little bit about that.

Dr. ABUBAKER. Senator Kaine, clearly, the director of the Motivate Clinic is, by training, an Ob/Gyn.

Senator Kaine. I see.

Dr. ABUBAKER. He came from that side. He's a professional on that side, but he came into the side of addiction through pregnant women and children born addicted. That's his passion. That's his practice. There is a lot of it going on in our medical center.

Senator Kaine. Great. Thank you for being here today.

Dr. ABUBAKER. Thank you. My pleasure.

The CHAIRMAN. Thank you, Senator Kaine.

The Ranking Member, Senator Murray, is here.

Senator Murray, I invited Senator Kaine to make opening remarks because you had another commitment. But if you have opening remarks you'd like to make, you're certainly welcome to make them.

Senator MURRAY. Mr. Chairman, I just would like to thank you for having this hearing, and I won't delay. We have lots of folks who want to ask questions, so I'll submit it for the record. Again, thanks very much.

[OPENING STATEMENT OF SENATOR MURRAY SUBMITTED FOR THE RECORD]

Senator MURRAY. Thank you, Chairman Alexander, thank you for your continued commitment to hold these bipartisan hearings on the opioid crisis.

Needless to say, there's a whole lot going on right now in the U.S. Senate, and frankly, there's been a lot of strong disagreement and at times, very heated discussions around several issues.

The so-called tax "reform" package being jammed through today, with yet another attack on families' health care, we have end of the year spending deadlines—you name it.

But I hope we can all agree that the opioid crisis is an issue that, no matter what else is going on, cannot afford further inaction, as many have heard me say on this Committee.

For the countless patients and families suffering from this epidemic, there is no tomorrow and there is no next time.

It is absolutely critical that we make progress to address this truly devastating public health crisis—and that we do so in a bipartisan manner.

I am pleased that we are joined today by a diverse group of witnesses, providers, public safety officials, and state health officials, who are on the front lines fighting

this epidemic—and who can speak to what is going down on the ground and what more we in Congress can do to help them address this crisis.

I am also interested in learning more about ways we can help bring communities together to prevent and combat addiction, and how that compares with what I am hearing back in my home State of Washington.

Because, like everyone here, the opioid crisis is something I hear about every weekend I go back home.

I've visited with countless communities that have just been devastated by addiction, this epidemic does not discriminate, it can reach anyone, and it can reach anywhere. I've listened to doctors who are treating skyrocketing numbers of babies born addicted to opioids—parents who have lost sons and daughters, children who have lost moms and dads, to an overdose—and veterans with chronic pain who also struggle, each and every day, with addiction.

The list, unfortunately, goes on and on. I will repeat this every time I can, this epidemic is not somebody else's problem. It's all of ours.

Again, that's why I am very glad we have the opportunity today to discuss this further and to hear from those closest to the ground about what they are seeing.

Now, right off the bat, it's clear to me there are steps we can take right now that would make a tremendous difference in this fight.

We have seen increased public awareness around this crisis, we are learning more about addiction each day, but we continue to lack the increased investments and response needed from this Administration—that would truly help states and communities address this complex challenge.

As we all know, late last month, President Trump finally issued a memorandum to the Department of Health and Human Services and other agencies on the opioid crisis.

I had hoped this announcement would bring about a much-needed change of course, and that President Trump would finally commit to supporting the substantial new investments that states, communities, and hospitals are making very clear they need to make progress on this crisis.

Unfortunately, President Trump's attempt at appearing to take action did nothing to give states and communities the resources they so desperately need, and in fact suggested that this problem could be addressed by using funding for other public health priorities, which underestimates the needs in all these areas. This was deeply disappointing.

Unfortunately, it represents a pattern of tough talk, no action that we've seen time and again from this Administration. And just to further underscore how inadequate this Administration's response to the opioid crisis has been—earlier this month, the White House's own Council of Economic Advisors released a report estimating the economic cost of the opioid crisis to be at over \$500 billion dollars, just for 2015.

That is six times larger than the most recently estimated economic cost of the opioid epidemic. So we desperately need this Administration to be a partner in fighting this epidemic.

But unfortunately what we continue to see is simply not enough. Congress has taken some steps, thanks to our bipartisan efforts on this Committee, to address the opioid crisis.

Like everyone here, I am proud of our work to pass the 21st Century Cures Act, which included nearly \$1 billion for states to address the opioid crisis through: prevention, treatment, and recovery efforts.

CARA, the Comprehensive Addiction and Recovery Act, which supports specific outreach for veterans and pregnant and postpartum women suffering from addiction, and expands access to medication assisted treatment.

These were important steps, no doubt about it, but we can and must do more. As we continue to consider further action, I am committed to ensuring we have strong congressional oversight over Cures and CARA so they have the intended benefits and impact for patients and families.

There's a whole lot more to discuss, but I would also like to make sure we leave as much time as possible for questions.

I would just again thank you Chairman Alexander, and all our colleagues for their continued efforts to tackle this pressing challenge.

I know there are many efforts being spearheaded by our colleagues on this Committee that would make progress and build upon our work thus far. I hope our discussion today can better inform and add to all those efforts.

Thank you again to our witnesses, I look forward to your testimony.

The CHAIRMAN. Thank you, Senator Murray.

Senator Baldwin, Senator Whitehouse, you both have witnesses here. I've introduced them, but if you'd like to say another word about them now before we go to Senator Paul, you're welcome to do that.

Senator Baldwin.

Senator BALDWIN. You can go first.

STATEMENT OF SENATOR WHITEHOUSE

Senator WHITEHOUSE. Well, I just want to welcome Rebecca Boss here, who is the Director of our Department of the unfortunately named Behavioral Healthcare, Developmental Disabilities and Hospitals. But we call it BHDDH. She has been working to serve those struggling with addiction for more than 25 years, working as a clinical supervisor and program director before joining the Department in 2004. She became the Acting Director in 2016 and was confirmed as Director this May.

Director Boss helps ensure that Rhode Islanders facing addiction and other behavioral health issues have access to high-quality prevention, treatment, and recovery services. She was very active at meetings and roundtables I held while drafting the Comprehensive Addiction and Recovery Act, and was integral in developing Rhode Island's Overdose Prevention and Intervention Task Force Action Plan. She has received state and national recognition for her work on developing and implementing AnchorED, a program that connects overdose patients in emergency rooms to peer recovery coaches.

Director Boss studied psychology at the University of Rhode Island, and received her Master's Degree in Counseling and Educational Psychology from Rhode Island College. Rhode Island is very proud of her.

Thank you for coming here today.

Thank you, Chairman.

The CHAIRMAN. Thank you, Senator Whitehouse.

Senator Baldwin.

STATEMENT OF SENATOR BALDWIN

Senator BALDWIN. Well, thank you for this opportunity, Mr. Chairman. I am thrilled to welcome Dr. Andrea Magermans to the Committee.

I know you've been introduced, but I'm particularly thrilled because I really think Wisconsin is leading the Nation with its new Enhanced Prescription Drug Monitoring Program, the ePDMP. It's a mouthful, but it is truly a state-of-the-art system. Not only is it a reporting tool, but it is also a prescribing assessment, public health and communication tool, and it's able to integrate directly into the medical record.

More than 48 million prescription records have been submitted to the PDMP, and it's helped contribute to an over 11 million decrease in the number of opioid doses dispensed. Importantly, this system was developed with end users and providers themselves to make sure that it works for them.

I am really proud of this innovative tool and the work that you've done, your long-term experience in the State of Wisconsin. We

know that this tool is critical to our fight against the opioid epidemic.

Welcome to the Committee, and thank you for sharing Wisconsin's story with our panel.

The CHAIRMAN. Thank you, Senator Baldwin.

Now to continue with our round of questions, Senator Paul.

Senator PAUL. You know, as a physician, it pains me to acknowledge that I think a big part of the problem is physician prescribing habits. I think those were also influenced by some misinformation from the drug companies on the idea that OxyContin wasn't that addictive. It turned out to be maybe just a little bit untrue.

I think that when we look at prescribing habits and we look at changing, we've been talking about this, and in Kentucky we've done some good things. We closed down some of the pill mills. We got rid of some of the checking prescriptions to make sure people weren't doctor shopping and duplicating. But we still have a county that has 21,000 people in it that had 2.8 million doses of OxyContin prescribed, OxyContin and Percocet. I lump them all together. That's 150 doses for every person who lives in the county.

Something is wrong, and we think we've gotten rid of the worst doctors that were out there doing it, and this still occurs. Something is wrong in our habits. From when I went to medical school, this is sort of the conundrum. Doctors don't want people to hurt, you know? I recently was the victim of an assault and had six ribs broken, and I was given opioids of some sort, and I finally made the decision just not to take them, not because I was worried that I would be addicted, although I was going to need four to 6 weeks of them, but I took large doses of Ibuprofen. People are, like, oh well, Ibuprofen is Advil, that's no good. Well, it does control pain. I still had a lot of pain, but I did get some relief with Ibuprofen. People think that's not good enough because it's not a narcotic, and I just don't think we've studied these things.

There is an evidence base in medicine on a lot of this to know. It reminds me of my wife when she was having a baby. They gave her morphine. She said, well, I was drunk as hell, but I still hurt like hell. You know, it affected her sensorium but it didn't cover her pain. She liked the Epidril a lot better, to tell you the truth.

There are ways to control pain, but I think we have made a mistake in over-prescribing. They say that four out of five heroin users started with prescription medication. Certain people are probably more prone to addiction than others, but they got on it, they got hooked, and then they somehow switched to heroin.

I guess my question for Secretary Tilley is we cut down the pill mills, we're cutting down duplicate, but we still have this massive prescription of pain medications, and when I talk to the doctors they say, well, they've been on it forever, and they're on four. They are tolerating it. A lot of them are just addicted and they're tolerating three or four and they're not dying from it, but it's still not a great life.

We've got to figure out a way—some of it should maybe come from the medical community, that we need to change what our recommendations are and how we practice. But do you have a recommendation, Secretary Tilley, on what we've done so far and why

we still have counties with 2.8 million doses of opioids being prescribed?

Secretary TILLEY. Senator, yes. I was going to mention the same county and those same numbers that I shared with Andrea to my right.

First thing, Kentucky is the first state to mandate the use of a PDMP. I think Castro was one of the first in the country to do that.

Second, we were the first state in the country to limit based on CDC recommendations. Just this past legislative session, the Governor dug his heels in on this. It was not easy to limit the prescription of opioids for acute pain to 3 days, because the CDC says between three and 5 days addiction begins. We're the first state to do that. You've got to shrink the size of the funnel at the top to keep these opioid dosages from coming into communities, and that's the first step in that regard.

To your point, too, again, I mentioned the book *Dreamland* only because I think I'm compelled to do it for the notion that I think we were sold a bill of goods, and I'll leave it at that. I think physicians were sold a bill of goods. After understanding what morphine can do to people in the day, and now moving forward into the '90's, what is chronicled in this book should be read by everyone who has a concern for this problem.

That said, at the University of Kentucky there is a new protocol to do just what you said, and that's begin with everything but an opioid rather than the opposite. Why begin with a narcotic? Begin with everything to deal with pain, the narcotic being the absolute last resort, and in a controlled setting a narcotic can be effective. It can't be diverted, potentially. That's why the injectables are coming online.

At UK, there are two patents pending. One is for injectable buprenorphine, but that's a little off, but that's non-convertible. It can deal with the addiction. The second is a mist for naloxone. But again just to say the kind of innovation in the medical community I think answers your question.

Senator PAUL. Here's one quick suggestion. As physicians, we don't want to be told what to do too much, and people need pain medications, and some physicians fear it will be too controlled and people will suffer with pain. But one of the things you might consider—and I don't know if you've done this—is go to the head of the medical society or the state board and have them go to these counties and just have a meeting with the medical society of 10 or 20 doctors and let them know these are your statistics and that you are outside the parameters, not put people in jail but let people know, because I think somehow there could be some sort of persuasion maybe within the medical community, even stronger than just universities. Universities probably aren't as big a part of the problem as communities are where people are decades-long addicted, you know?

Secretary TILLEY. If I could, Chairman, just quickly on that point, I would credit the medical community nationally but also in Kentucky for recognizing that the posture was so defensive 5 years ago when we began trying to legislate our way out of this to a certain extent, and today it's much different. We have done just what you suggested, and I think it's an excellent suggestion. We need to

do more of that, and that's why you see the medical schools now upping their training requirements for prescribing practices for opioids, as an example.

The CHAIRMAN. Thank you very much, Senator Paul.

Senator Bennet.

Senator BENNET. Thank you, Mr. Chairman.

I would join Secretary Tilley in recommending Sam Quinones' book about this. When you finish Dreamland, you really have to ask yourself what we're doing here as a country. I mean, 50,000 people a year are now dying, and we really haven't responded.

In my state, in Colorado, especially in rural parts of the state, although it really is everywhere, but in rural parts of the state there is no more access to addiction treatment today than there was 10 years ago when this started, none. If you go to the San Luis Valley and have a town hall, you'll have three or four questions today, but 6 years ago, 7 years ago, nothing, and there is still no additional addiction treatment, except for what's happening in the jails, and I'm going to come to that.

I want to ask Director Boss a question first. Today's Denver Post reports that we have had an increase in Colorado of newborns addicted to opioids that's 80 percent between 2010 and 2015. I can only imagine that number is worse in 2017. In some parts of Colorado, the rate is even higher. Parkview Medical Center in Pueblo, the city's safety-net hospital that sees many Medicaid patients, the rate of newborns addicted to opioids skyrocketed from 0.7 per 1,000 people in 2010 to 20.8 per 1,000 people in 2012. The rate now hovers around 10, and doctors have noted a shift from prescription drugs such as OxyContin to street drugs, mainly heroin, in recent years. I'm quoting from this Denver Post article.

The article went on to state that the number-one cause of death for pregnant women and new mothers in Colorado is drug overdose. I wonder, based on your work in Rhode Island, what we should be thinking about in Colorado and other places when it comes to caring for mothers that are addicted and their newborns who are addicted.

Ms. BOSS. Thank you, Senator Bennet. I do know that we are seeing an increase in the number of women who are overdosing as a result of opioids, and that fact can't be forgotten in terms of the importance of the addiction on the family and, as you mentioned, on the newborns. We are seeing an increase in neonatal abstinence syndrome. We have a workforce in Rhode Island that is addressing that issue.

It's important to remember that infants aren't born addicted, which implies behavior. They're born dependent on a substance, and there is medical treatment for that condition when they're born dependent on a substance, and the use of medications, which can be methadone or buprenorphine, may also increase those born, but those are the treatments that are recommended.

It's important as we look at the increase, it may reflect an increase of individuals who are being appropriately treated with medications for their addiction, and the care of the infants is really important.

One of the things that has come through in the last few years, through Congress, has been an increase in PPW funds, and I think

that the Pregnant Postpartum Woman funding for treatment is critical. If we look at programs that are effective in addressing women, we have to provide funding for programs that will treat the children of these women as well. Addiction affects the entire family. When women are adequately supported and given the tools for recovery, they recover. The importance is providing the funding for that, and I appreciate the work that's been done thus far, and I look forward to our work going forward and providing more support to those individuals.

Senator BENNET. But, Secretary Tilley, at the last hearing we had on the opioid crisis I asked what we could do to help people struggling with prescription drugs or heroin addiction that have lost their Medicaid coverage because they've been placed in jail. Colorado counties especially, again, are rural areas and struggle to find money for addiction treatment and care, and management for inmates who are cutoff from Medicaid. There is agreement from the witnesses that a jail is a pretty lousy place to administer addiction treatment. I know, partly because I read that book, that Kentucky has done some important things here, and I wonder whether you'd be willing to share that in the last minute or so that we have.

Secretary TILLEY. I will, and certainly I thank you for that. A suspension of Medicaid so that it doesn't take as much red tape to get it going again on release of that inmate is critical, so that's something I would consider.

The use of social service clinicians. Again, social workers, immediately upon release, to link that inmate right back to whatever resource they need.

I would also say that access doesn't always equal outcomes. Certainly we need money at every turn for treatment, but there certainly are ways to be innovative, and there are ways to use that money in targeted and surgical ways to set up just the kind of outcome-based interventions that can work for those who are leaving prison or jail.

I am one who also thinks that the best kind of treatment does not occur. It's absolutely essential to have it behind the walls of prisons or jails. But the best kind of treatment doesn't always occur there. That's why the use of sometimes controversial civil commitments in Kentucky—we call it Casey's Law, Senator, after a young man, Casey Wethington, died of an overdose years ago. We've had some trouble expanding that. It works, but it could work better.

To use civil commitments would then preserve whatever benefits, like Medicaid, that individual may have in a civil setting, as opposed to an incarceration where they would lose those benefits.

You've touched on something very critical, and again, we just try to link people back to it as quickly as possible. We're also trying to release people into treatment facilities with some parole practices that are unique. We're working on those today so that we identify those. What we found is incredible.

The CHAIRMAN. You're over the 5 minutes.

Secretary TILLEY. We found we have far too many people with possession-only offenses in prison. That's a shocker, I know, but it's not better than it was 10 years ago.

Senator BENNET. Thank you.

The CHAIRMAN. Thank you, Senator Bennet.

Senator Isakson.

Senator ISAKSON. Thank you, Mr. Chairman.

I want to commend Dr. Abubaker and all of you for testifying today. It's a very important hearing. In fact, it's probably the most important hearing from an educational standpoint that we could possibly have, and I thank Chairman Alexander for calling it.

I want to get everybody to look at this, the next-to-last paragraph of Dr. Abubaker's prepared remarks. It's in your book. I want to read two things in there that are critically important, and I want to tell you why.

Dr. Abubaker says, "I'm worried we will not address the root of the current opioid epidemic, which are addiction and mental illness as the underlying reasons for all drug epidemics we have been through and face in the future. If we do not address the foundation of these epidemics, I fear that another drug epidemic will emerge from now, and another generation of Americans, maybe even our own grandchildren, will be faced with a drug crisis of a different kind. We had better not let this happen. With the knowledge we have now about brain function and how addiction affects it, to let future generations of Americans be affected by similar crises in the future would be a historical abdication of our responsibility to do good for our country."

That is a powerful paragraph. It's powerful to me because I lost my grandson, Charlie, December 8th of last year to a drug overdose. Charlie would be the first person to tell you, if you can cure the addiction problem, not the pain problem but the addiction disease, that probably wouldn't have happened. I miss Charlie to this day, and I have always sworn that I'm going to use that loss when I can to help, as you did today in your testimony.

Others understand that those tragedies don't just happen to other people, they happen to us. They can happen to us.

Second, I had a unique experience this year. I had two major back surgeries, one in February and one in March. I learned a whole lot of about OxyContin and hydrocodone and lots of things I didn't know anything about that I thought were just pills to make me feel better. But the ramifications and the potential amplifications of taking those medicines at the age of 72 for pain can get you in a whole lot of trouble.

I remember when my surgeon had me interview with a mental health specialist before the operation to talk about what the anesthesiologist was going to recommend to me as a pain management regimen. I knew this must be a pretty big issue. It's not like taking an aspirin.

I think your testimony is powerful in what we all can do. One is to try to better educate the educational establishment of physicians and providers to the role they have in limiting the exposure people will ever have to these opioids, and hopefully depending on other ways of treating pain that avoid it entirely. With both of my surgeries—and I'm not trying to sell a product here, but Tylenol was my pain management medicine of choice. I would have never thought that going in for the operation, but realizing what happened to Charlie and his overdose with an opioid last year, I realized how that counseling saved me and helped me a lot in mine.

I want to thank you for your willingness to testify about your own personal experience. But I do think you're right, the mental health aspect and the addiction disease are the things we really ought to focus on as a Committee and as a country. If we don't, there's a worse price to pay later on in another generation. We don't know what that price will be, but we know it's there if we don't deal with this now.

I just want to thank you for your testimony.

I thank you, Mr. Chairman, for bringing this to everybody's attention, and I'll yield back my time.

The CHAIRMAN. Thank you, Senator Isakson.

Senator Franken.

Senator FRANKEN. Thank you, Mr. Chairman, for this hearing.

Dr. Abubaker, I'm sorry I wasn't here for your testimony, but I read it last night, and I was very moved by all your testimony and describing the tragic death of your son, how it motivates your work.

In your testimony you note that the problem is not solely opioids and that we need to move the conversation to dealing with addiction as a disease of the brain, and I agree 100 percent, and I appreciate the work you're doing to educate medical and dental students on appropriate prescribing practices of opioids.

I firmly believe that all clinicians need this training. That's why, as part of the 21st Century Cures Act, Senator Cassidy and I championed a provision to grant funding to improve training for medical schools and medical students and dental students and practitioners and nursing students and practitioners and social workers.

Our Nation's clinicians need to know when they see someone who has an addiction problem, and I don't think they get that training. They don't get that training in medical school. They don't get that training, and we need to have that training. That was the purpose of that.

Dr. Abubaker, the CDC recently released prescribing guidelines for medical providers who are prescribing opioids for chronic pain. How will these guidelines help change opioid prescribing practices?

Dr. ABUBAKER. Thank you, Senator. In my profession and specialty, oral surgery, the major emphasis for our training for students or residents is acute pain. There are a few instances where we deal with chronic pain, something called TMJ, if you've heard of it. That usually turns into chronic pain. The guidelines in general, in principle, for the management of acute and chronic pain is compassion for the patient's need. Historically, we thought the compassion equaled the number of tablets or the strength of the medications.

I think we have to go back to compassion as what hurts and what harms the patient and what benefits the patient. Sometimes the non-pharmacological management for acute pain—and I'm not a specialist, so I have to explain that I have no expertise in chronic pain. But from my perspective, the compassion for the patient, some patients will need opioids, long-term opioids, but we have to individualize the treatment.

Also, we offer tailored treatment to the individual, for some people spiritual or maybe some other non-pharmacological agent, sometimes mild pharmacological agents. But clearly, the bottom

line is the scientific basis and the evidence-based management. I think the CDC recommended that kind of guideline.

Senator FRANKEN. Senator Isakson read the last paragraph and talking about this as a disease of the brain and being resilient for the next addiction crisis. I think this is one of the reasons that we have to fund NIH funding and mapping the brain. I think that's so important.

I have so much to ask about. I hope we'll be able to get a second round.

Ms. Boss, I was so impressed by what you put together in Rhode Island, and I certainly hope that is being studied and copied, the Anchor MORE Program, the coaches, the recovery coaches. What I was really interested in was how they seem to be everywhere and how you trained them up, and how you made sure that—Senator Bennet talked about how there's not enough treatment. We need more treatment, and we need more counselors.

One of the problems in my state is Indian Country. I'm going to try to get done before my time runs out so you can answer the question of how you did this. But in Indian Country, when they say culturally specific, many times that means an Indian provider.

How did you train all these people? How did that happen?

Ms. BOSS. We have specific training for our recovery coaches, and they actually go through a certification process. But for those that are dealing with individuals who are high risk, we enhance that training even more. The Anchor MORE outreach counselors that go to data-identified hot spots where there's increased activity with overdose or fentanyl in the area, they are specifically trained to distribute naloxone, teach people how to use naloxone. They're specifically trained to motivate people to want treatment. This is where we need to identify. We have treatment available. We have to get the people to that treatment. Sometimes, in providing the hope of recovery, I've done it, I've been where you are, I know what you're going through, life can get better.

Often times, when people are in the midst of their addiction, they don't see that opportunity to get better. Recovery coaches who have been there are able to provide that spark of inspiration that there might be an opportunity for my life to get better. They're actually going out into the community to find these folks, not waiting for them to overdose and show up in the ED.

The CHAIRMAN. We're running out of time.

Ms. BOSS. Thank you.

Senator FRANKEN. Thank you.

The CHAIRMAN. I'm going to—we all have important questions. We have 10 Senators who haven't had a chance to ask questions yet, I'm going to keep a pretty strict rule on the 5 minutes for questions and answers, if everyone would respect that, my colleagues.

Senator Cassidy.

Senator CASSIDY. Thank you. Thank you all for what you do.

Ms. Magermans, I really like your PDMP, and I'm asking questions not to diminish but to understand. It seems like you are a model for what everybody should be doing. But when I look at the number of opioid deaths in HIV from your Wisconsin DPH, you've actually increased since implementation. I say that not to accuse but to understand. Why, with such an incredibly effective program

since 2013, have opioid deaths risen from 350 to 400, that sort of thing?

Ms. MAGERMANS. Thank you, Senator. I think we can see that there is a reduction in the opioids that are being prescribed and dispensed. However, there is an increase in overdose deaths, and I think it's because of the presence of the fentanyl and the fact that there are heroin overdose deaths with—

Senator CASSIDY. Let me ask, because I'm looking at these stats—I can share this, but it's from your government.

Ms. MAGERMANS. Sure.

Senator CASSIDY. The prescription opioids are also up sloping. It's the heroin, but also prescription opioids. So, any thoughts about that?

Ms. MAGERMANS. I think it's a slow process. I think that the prescribing has effects later on down the road. Reduced prescribing, there are people who are already addicted and who may end up overdosing, and I think it's really just moving in a new direction once you do start curbing some of the prescribing. I think the effects will be later.

Senator CASSIDY. A lag time before effect.

Ms. MAGERMANS. Exactly.

Senator CASSIDY. What do you do with your data? Do you proactively refer—you implied you did, but to confirm, do you proactively refer a physician who is an outlier, three standard deviations out? Do you proactively refer she or he to law enforcement?

Ms. MAGERMANS. To law enforcement? No. The Controlled Substances Board oversees the program in Wisconsin, and the Controlled Substances Board has the authority to refer to the licensing board, a physician to the medical board, an advanced practice nurse prescriber to the nursing board, et cetera.

Senator CASSIDY. There is a pattern of physicians that are pill mill doctors. They move from state to state to state to state. I say that as a physician; and, as Dr. Paul said, regretfully so.

Is there any way to track a risk factor for a doc being a pill mill doc? I see Secretary Tilley nodding his head, so I'd love to have your input as well. My gosh, licensing board, he's lost his license in three other states. It seems like there should be a trigger for someone to monitor.

By the way, I'll tell you, I once had a drug rep come up, and she said I know who the pill mills are, because I can go to their office and there's a certain clientele. Somebody pays \$300 for an initial visit, and they walk out with a handful of prescriptions 5 minutes after entering the exam room. I'm thinking, a drug rep can figure this out. Not to diminish her, but she's just observing, and everybody with their data bases aren't coming to the same conclusions. Hats off to her, but it's a little bit indicting us.

Any thoughts on that?

Ms. MAGERMANS. Speaking of the Wisconsin PDMP, the data is about prescriptions that are dispensed in Wisconsin. A prescriber that first practiced outside of Wisconsin would not have PDMP data that is analyzed with the Wisconsin PDMP data. However, things like the average distance that patients travel to see a—

Senator CASSIDY. I don't mean to cut you off. I just have a minute 38 seconds.

Secretary Tilley, you were also nodding your head when I spoke about these pill mill docs. Any thoughts on that?

Secretary TILLEY. Yes, a number. But in a minute I would tell you very briefly that we are tracking that data. A company is helping a number of states do that as well, red flagging, letting doctors know where they stand as well, so they can look and see. They are often getting busy, not understanding how many they may be prescribing, seeing some of those red flags themselves to be able to self-assess.

Senator CASSIDY. If a doctor is going from Indiana to Ohio to Tennessee to your state, and somehow there have been flags along the way that the doc is a pill mill doc, would you know that?

Secretary TILLEY. We would. There's only one state we can't collaborate with now. Of the seven border states of Kentucky, Missouri is the only one where we're trying to get there. Not to be critical, but it's the reality. But we do know that. We can track that.

Senator CASSIDY. Okay. Does that affect the licensing of that physician to obtain a medical license and/or the surveillance of his practice once you so identify?

Secretary TILLEY. One of the challenges has been the Board of Medical Licensure in our state. They have come a great ways in that area, but I still think they need to be more aggressive in making certain that docs who are over-prescribing, No. 1, know it and have a chance to correct it, and if they don't, are sanctioned for it.

Senator CASSIDY. Next, Ms. Boss, I have a few seconds left. You mentioned in your testimony giving MAT to people in prison. Did you mean jail? In other words, short-term imprisonment? Or did you mean prison? In other words, they're going to be there for 10 years?

Ms. BOSS. I meant both.

Senator CASSIDY. If they're in prison, there for 10 years, you must have a problem with contraband?

Ms. BOSS. The program has been in effect for about a year, and we have not, as far as I understand, not seen an increase in contraband. Now, please know that we don't provide MAT for an individual who has a sentence of 10 years until prior to release. If someone has a history of opioid dependence and they're leaving and they are at risk for overdose and are appropriate for medication and want to get on medication, we are willing to provide that medication prior to release, but not for a 10-year sentence.

Senator CASSIDY. I'll finish by thanking you, Dr. Abubaker, for your powerful testimony.

I yield back.

The CHAIRMAN. Thank you, Senator Cassidy.

Senator Murphy.

Senator MURPHY. Thank you very much, Mr. Chairman.

Thank you all for being here. We have other hearings; we're in and out. But this has been very, very helpful.

I have a few questions. I'll just start by noting that it's very hard to confront this epidemic when we are threatening to pass health care legislation that would remove \$800 billion from Medicaid, which is the program that ends up treating 40 percent of addiction clients in this country. We're about to vote on a piece of legislation later tonight that would trigger automatic cuts, in the neighbor-

hood of \$25 billion, to Medicare, \$1.7 billion in the first year alone to the social services block grant. I think this is all really, really important and helpful, but we're going to make your life a lot harder if the legislation that has been pending throughout the year becomes the law.

Ms. Boss, I wanted to follow-up on your testimony mentioning Rhode Island's efforts in promoting non-opioid therapies for chronic pain. Senator Paul asked a little bit about this, and I'd be happy to hear others' testimony on the panel to this question. But can you just talk a little bit about what the barriers are today to getting non-opioid, non-drug-based therapies for pain? Amongst them that I've heard is insurance companies making it a lot easier to get reimbursement for a drug than it is for physical therapy or acupuncture, the lack of providers in this space if you try to find alternative pain therapies.

I'd be happy to hear others' testimony, but you raised it in your prepared remarks, so let me pose it to you first.

Ms. BOSS. Thank you. Our efforts to combat this epidemic are really in four areas, the first being prevention. We've done a lot of work in terms of trying to reduce the supply of opioids and the prescribing of opioids and making sure that they're appropriate. A lot of the work that's been described previously has been done in Rhode Island as well.

One of the things that we focused on, and our Department of Health is very active in working with the medical community to look at alternative pain management therapies, and the work of our legislature, and the work of our insurance company and Office of Health Insurance commissioner to make sure that there is adequate coverage for alternative pain management therapies.

Things like massage, things like acupuncture, things like chiropractic are important in combatting the pain that individuals suffer without opioids. We've done a lot of work engaging multiple stakeholders in making sure that the insurance companies around the table, they have a seat at the Governor's Overdose and Intervention Prevention Task Force, and making sure that our legislators are on board in terms of promoting insurance coverage for alternative pain management therapies. That's really where the importance is.

We haven't seen, to my knowledge, a lack of capacity within that provider system. It's really about whether or not people can afford it, and people can afford it generally if their insurance coverage is going to cover it.

Senator MURPHY. How are we doing on that? I mean, you're working on it, but do you see insurance benefits today covering the range of alternative pain therapies that should be covered?

Ms. BOSS. I believe that we are making progress. I can't say that 100 percent of all insurance in Rhode Island covering the alternative pain management therapies is as much as we would like to see, but I think that we have made progress and that those pain management therapies are being covered by most insurance.

Senator MURPHY. Secretary Tilley, do you have anything to add?

Secretary TILLEY. It's a challenge for us. We have a system of managed care. We are trying to work with those providers, do master agreements with them to cover. The challenge is certainly

sometimes the companies don't see that individual as a long-term health concern for them, so the immediate need is to cut pain at less cost rather than to improve their lifestyle through physical therapy, through nerve blocks. You mentioned all the others, so I won't repeat them.

That is the way to partially get us out of the need for so much pain medication, even if it is a Tylenol, which certainly is much less problematic than the narcotics we're discussing today.

Yes, the challenges are great. Again, my umbrella in the justice cabinet is pretty broad, from corrections to public defenders to everything in-between under the umbrella of justice, but we are working daily in justice because this problem is so pervasive in the criminal justice system with public health, with the health and family services branch, with the insurance companies on these issues to try to get them to come to the table.

I can't possibly finish that in 27 seconds, but you've hit a nerve, let's just say that.

Senator MURPHY. Maybe there's not legislation on this, Mr. Chairman, but just potentially the opportunity to use a bipartisan bully pulpit to make clear to the insurance companies that this is in their best interest to ultimately pay for these alternative therapies. It might cost a little bit more money up front than the bottle of pills, but in the long run it's going to save you an enormous amount of money.

Thank you, Mr. Chairman.

The CHAIRMAN. Thanks, Senator Murphy.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman. Thank you to each of you this morning. We truly appreciate your testimony, your work, and just the effort to deal with this epidemic, pandemic, as we have been describing it.

Senator Bennet mentioned that so much of the challenge in many of our states is the rural aspect. It may be that you can get coverage for treatments, but if you can't get to the treatment, it's pretty difficult.

Ms. Boss, you acknowledge in your recommendations that many individuals living with substance abuse disorders don't have access to transportation. You just can't even get there.

One of the things that we've been working on in Alaska, because again we simply don't have sufficient treatment that is available, and the distances are limiting, the FDA has just recently approved a device that's called the bridge device. We've been working in certain areas to—it's an ambulatory detox model, and through the use of the bridge device, which reduces the symptoms of those who are going through withdrawal, along with medically assisted technologies, the MAT, using Vivitrol and counseling, we have been trying to use this as this effort to fill the gaps until we're able to get more treatment facilities that are online. We've got the potential for additional facilities, additional beds coming on, but it may be 2 years from now, maybe even longer than that. As we all know, none of these individuals have 2 years to wait.

Being able to share some of the pilots that are going on in different areas, particularly as we're struggling with how we deal with the realities of rural restrictions, things that limit us from

any level of treatment whatsoever. I will note that in our state, the benefit that has come to us in being able to treat more through Medicaid expansion has been quite significant for us as a state.

I wanted to ask a question that, Secretary Tilley, you reference in your written testimony but you just kind of skirted by it, and that is the issue that we're beginning to see with outbreak of HIV or hepatitis because of the needles that are being used to inject heroin. I'm actually going to be meeting with a member of our state health and social services department with a specific focus to the syringe services program that we are trying to implement in the State of Alaska.

Can you, or if others have more information on this—because we're dealing with an opioid epidemic. But again, are we also leading ourselves to a hepatitis epidemic, a resurgence of HIV? Can you please speak to this?

Secretary TILLEY. Yes, Senator, I absolutely can. In Kentucky we became the first southern state 2 years ago to legislate a comprehensive statewide program, very controversial. Again, I think people thought I had three heads when I stood up on the House floor when I was in the legislature to talk about it for the first time. I did that, and now we have 41 programs in a state, again, that is in desperate need of this because our Hep C rates are seven times the national average, our HIV rates are off the charts. Of the 220 counties most susceptible, according to the CDC, of a rapid HIV outbreak, 54 of those counties are in Kentucky.

The Senator from Indiana mentioned the problem. I'm right across the river from Louisville. It happened in Austin, Indiana, many of you know by now, with rates of HIV and their outbreak like that of Sub-Saharan Africa. That was instructive to us on how close we were to that kind of public health nightmare. We're proud of this effort now to move forward on that.

I would say as it relates to corrections, we don't treat now without symptomology. If there would be some requirement to do that—and this applies to many states around the country moving forward—I don't know how the existing tax base could withstand an additional \$100 million burden to treat for Hep C on the front end without symptomology, which again we can do today.

Again, to say you've hit a nerve, you absolutely have. Anything we can do in the public health arena to cut down the blood-borne illnesses is critical to this entire problem.

Senator MURKOWSKI. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Murkowski.

Senator HASSAN.

Senator HASSAN. Well, thank you, Mr. Chairman, and Ranking Member, for having this hearing. Thank you and good morning to all of our panelists.

Dr. Abubaker, thank you so much for speaking up. I also want to thank Senator Isakson for talking about his grandson.

I was Governor of New Hampshire before I took on this role, and so I've been dealing with the opioid epidemic in my home state, where it is absolutely devastating, since 2013, and I have to start by saying that if this were any other kind of public health crisis that was taking 100 lives a day, which is about what the opioid

overdose death rate is right now, if this many people were dying in a defective plane every day in the United States of America, we would be devoting considerably more resources to it.

Part of the reason we haven't is because of the stigma that has traditionally come with addiction. So, doctor, your speaking up about your son, Senator Isakson speaking up about his grandson, the people in this room, and I know there are many, who have lost loved ones or who have struggled with addiction themselves speaking up about it is critical to this.

We need a long-term strategy to solve this complex problem, and that requires funding to support those on the front line of the crisis. The Trump administration has so far refused to request additional funding to fight this crisis, and yesterday I pressed the HHS Secretary nominee on the issue because we need the Administration to send to Congress a supplemental funding request so that we can appropriate more funds and resources.

For each witness here, I just would like a yes or no answer: Do you think additional funding is necessary? I'll start with Dr. Abubaker and just go down the line.

Dr. ABUBAKER. Yes.

Ms. BOSS. Yes.

Ms. MAGERMANS. Yes.

Secretary TILLEY. Additional—and I apologize. I have to ask a question to clarify something. Additional funding for addiction treatment? I'm sorry, I apologize.

Senator HASSAN. Treatment, prevention, and recovery. But do we need more funding on the front lines?

Secretary TILLEY. Yes.

Senator HASSAN. Thank you.

To Director Magermans, I want to thank you for your leadership in helping us understand how PDMPs are really critical to combating this epidemic. I just wanted to drill down a little bit. While states can benefit greatly from these electronic data bases, there continues to be some difficulty in ease of use and accessibility. PDMPs are only informative if prescribers actually utilize them.

Do you believe that integrating PDMPs into electronic health records will promote better work flow for providers and increase the likelihood that they would use PDMPs?

Ms. MAGERMANS. The short answer there is absolutely, yes.

Senator HASSAN. Okay. Do you think substance use counselors and mental health providers who often work with patients experiencing substance misuse disorders on a longer-term basis should have access to PDMP data as well?

Ms. MAGERMANS. In Wisconsin, substance abuse counselors licensed by the Department of Safety and Professional Services can access the PDMP, and the feedback that we have received from them is that it is a very valuable tool. We have other social workers with a specialty in substance abuse disorder treatment who access it as well, and they also say that it is a very valuable tool. I would say yes.

Senator HASSAN. Okay, thank you.

To Secretary Tilley, I appreciated your testimony about the coordination between law enforcement and public health officials in Kentucky. We know that this is an epidemic that knows no bureau-

cratic boundaries, and we need to ensure that we are breaking down the silos between different agencies and officials, silos that can prevent us from responding appropriately to the epidemic, something I focused on when I was Governor. In New Hampshire we're doing some really interesting work. It's called Safe Stations. Through that initiative, firefighters are available 24/7 at participating stations to help connect individuals in need of treatment or recovery services so that people struggling with addiction know about the resources available to support them on the road to recovery, and so that firefighters can help with what we call a warm handoff to peer support or treatment.

I am very proud of our brave firefighters for all they do to strengthen public safety and public health, including really driving this important initiative.

Could you talk a little bit more about the importance of ensuring that public safety officials are helping us address these public health issues and whether you think programs like Safe Stations can help us turn the tide?

Secretary TILLEY. Absolutely. First responders are critical in this because they're the boots on the ground, first to respond. Again, things like needle exchange programs make it five times more likely that they touch the people on the ground where they are, the harm reduction model, find them, get them into treatment. That's part of the untold story there.

LEAD, the Law Enforcement Assisted Diversion, is to get those mentally ill and addicted into treatment rather than a prison cell or a jail cell. That's very critical. Again, our Governor, having a very good connection to New Hampshire, we know about Safe Stations, and that is a great program. We need to do more of that.

I also cannot go without mentioning our Angel initiative. We have a very dynamic State Police Commissioner who has spent a lifetime at the DEA, and he understands the need to do this. That's why we've made such tremendous progress in a very short period of time. Again, the Angel initiative is anyone can come in with paraphernalia, addicted, throw down that in a police station setting and be connected to treatment that same day. We guarantee that treatment bed the same day, no criminalization of any kind.

Senator HASSAN. Thank you very much.

Thank you, Mr. Chair.

The CHAIRMAN. Thank you, Senator Hassan.

Senator Sanders.

Senator SANDERS. Thank you, Mr. Chairman, for holding this important hearing, and let me thank all the guests for being here. A lot of questions, short period of time.

Let me just begin by saying that in my small State of Vermont, we have lost 112 people last year as a result of opioid overdoses, and that is three times more than who died in 2010. In 2015, Vermont had the fifth highest prevalence rate of heroin use in the country, and in 2016 heroin-related emergency room visits increased by nearly 20 percent. Even in a small, beautiful, rural state, we have an epidemic.

OxyContin's manufacturer, Purdue Pharma, pled guilty and agreed to pay more than \$600 million in fines in 2007 for misleading the public about the risks of OxyContin. But the drug con-

tinued to rack up blockbuster sales, generating more than \$22 billion in profits over the last decade.

Should the pharmaceutical industry and companies like Purdue be treated the same way as the tobacco industry was treated decades ago? The tobacco industry killed millions of people in this country, and they lied to the American people about the health impacts of their product. Purdue and other companies produced a product, forgot to tell doctors or the people that it was addictive, thousands of people have died and suffered as a result.

Should we—brief answers—hold those companies responsible in the same way we held the tobacco industry?

Dr. Abubaker? Brief answers, please, because I have other questions.

Dr. ABUBAKER. Research and development for development of treatment for addictions and treatment for pain medication that's not addictive, at least on that level.

Senator SANDERS. Ms. Boss.

Ms. BOSS. I would agree with the doctor. I'm not sure I'm really qualified to answer that question but would want more information on what kind of accountability we'd be looking for.

Senator SANDERS. Ms. Magermans.

Ms. MAGERMANS. I'm not qualified to answer that question.

Senator SANDERS. Secretary Tilley.

Secretary TILLEY. I may not be qualified, but my answer is yes, unequivocally. Kentucky settled a lawsuit years ago—well, they settled it, but it began in 2007, which should have been a billion-dollar settlement, at minimum, for the devastation that was caused in Appalachia in particular. It was a \$24 million agreement to settle that is now still sealed. We don't even know what has been said. A deposition of one of those lead figures in this at this point is still silenced.

Senator SANDERS. Mr. Chairman, I don't understand—and I agree with Secretary Tilley. I just don't understand how we allow a situation to continue where these companies make billions of dollars in profit who essentially lied to physicians, lied to the American people, and have caused an epidemic. We've got to deal with that.

My next question is I think we all understand that we need additional resources for treatment, and I don't mean to be overly political here because I know that everybody—Republican, Democrat, Independent—is deeply concerned about this crisis.

Brief answer, maybe yes or no. I believe that if this tax bill passes in the near future, there will be brought to the floor of the House and the Senate a trillion-dollar cut in Medicaid. That was in the Republican budget.

Question: What happens to your programs if a trillion dollars in Medicaid is cut? Very briefly.

Dr. ABUBAKER. I'm not sure of the financial implications of this issue.

Senator SANDERS. Ms. Boss.

Ms. BOSS. It's a really simple answer. I think all of our efforts are disintegrated, honestly. Our access to treatment is foundational, and Medicaid supports access to treatment.

Senator SANDERS. Thank you.

Ms. Magermans, a trillion-dollar cut?

Ms. MAGERMANS. The PDMP greatly benefits from federal financial support.

Senator SANDERS. Secretary Tilley.

Secretary TILLEY. Again, assuming a trillion-dollar cut, I understand if you took that away from Kentucky, let me say this. Again, I don't think access always equals outcomes. I do have a real concern. We need money. We need it to come in other targeted ways, whether it comes to us—I'm not concerned about how it comes to us, but it needs to come to us with very targeted, surgical—if those are strings, so be it.

Senator SANDERS. If your Medicaid funding is cut, it's going to make your life a lot more difficult, will it not?

Secretary TILLEY. Well, I think if we don't have money to do the things we do today, there will be some challenges, although we are fighting for waivers to maintain those levels of funding.

Senator SANDERS. Okay, last question. At the end of the day, I think we are all in agreement that we have to do a better job of prevention in a wide variety of things. Are we doing as good a job—and I had a town meeting at the largest high school in the State of Vermont on this issue. Are we doing as good a job as we can reaching out to the young people and explaining to them the dangers, that just beginning to dabble in this issue of opioids can be a life-threatening decision? Do we do a good enough job, Secretary Tilley, in reaching out to the young people?

Secretary TILLEY. No, sir. We are doing everything we can at the moment, but we need to do twice that, and I think we need to reach to even a younger age and talk to them like we're talking today. Again, don't patronize young people, but we need to tell them exactly what can happen and how dangerous these things are.

Senator SANDERS. Ms. Magermans, young people?

Ms. MAGERMANS. I would definitely agree with his remarks.

Senator SANDERS. Ms. Boss.

Ms. BOSS. We have not, but a lot of our efforts that are funded now for the Cures and the other federal legislation that has passed are focusing on just that, and we're really trying to up our game in that area.

Senator SANDERS. Good.

Dr. Abubaker.

Dr. ABUBAKER. Senator, I said that in my opening statement, education, and I meant education all the way from middle school to medical school.

Senator SANDERS. Thank you all. Thank you very much.

The CHAIRMAN. Thank you, Senator Sanders.

Senator Baldwin.

Senator BALDWIN. Thank you, Mr. Chairman.

While the opioid epidemic continues to ravage the country and my home State of Wisconsin, I have to say that I am proud that Wisconsin is leading in a number of respects, including an aggressive and innovative advancement like our state-of-the-art Wisconsin Enhanced Prescription Drug Monitoring Program. We have also implemented provider education requirements based on the CDC Opioid Prescribing Guideline, as well as many other reforms.

Before getting into a couple of specific questions about that, I also want to associate myself with some of the previous comments of my colleagues regarding the need for additional resources. Whether it's the recommendation that we declare this a national emergency, but whether that's just words or resources too, that matters. Also I want to associate myself with the observation that the matter that we are discussing on the Senate floor today and potentially over the next several days has an enormous impact on our ability to fight this epidemic.

But, Ms. Magermans, as we've heard time and again in this hearing, too often addiction begins with a legal prescription, whether that's for a broken leg or other injury, chronic back pain, oral surgery as we've been discussing, or it occurs because of a doctor or nurse who recklessly over-prescribes dangerous combinations of drugs, which happened actually at a VA facility in Wisconsin in Tomah.

We need to have the real-time data about prescribing practices not only to arm doctors with the tools they need to care for the patients but also to ensure accountability for those dangerous outliers.

I'd like you to elaborate a little bit further than you did with Senator Cassidy about how the Wisconsin ePDMP enhances provider education on safe prescribing, including with the CDC guidelines, and also how it acts as an oversight tool that can help manage over-prescribing.

Ms. MAGERMANS. Sure, thank you. The alerts that are made about patients and their prescription history are based on criteria that come from the CDC guidelines, so having to do with high levels of opioids or opioid/benzodiazepine overlap. The alerts have information in them so that they are also an education piece provided to the prescriber.

The chart that shows the opioid level of the patient and whether or not there is an opioid/benzodiazepine overlap also has information about why that is presented to the prescribers, so the prescriber knows that there is a greater risk of overdose with the concurrent prescription or a high level of opioids. The benchmark lines at 50MME and 90MME come directly from CDC recommendations, and then there are links within the patient prescription history to report to the CDC for more information.

Then within the prescribing practice metrics report for a prescriber there is an additional education piece that just explains some of the CDC guidelines, and that is one of the oversight tools that a prescriber can use to do a self-assessment to see how that prescriber compares to others in the same specialty. Then a medical coordinator can also use that same report to look for outliers within a specific health system and provide education to the provider who might need some education.

Senator BALDWIN. Great. Just to clarify that last point, in response to Senator Cassidy you were talking about the potential of reporting your oversight with the Controlled Substances Board and their ability to communicate with licensing boards.

Ms. MAGERMANS. Yes, this is correct. Data coming from the PDMP is provided to the Controlled Substances Board. The Controlled Substances Board will determine whether or not a pre-

scriber should be referred to the prescribing board for potential discipline.

Senator BALDWIN. I know we're watching the clock carefully, but I did reference the misuse of opioids at a VA facility in Wisconsin. It resulted in the tragic death of a Marine, and working with his family we introduced bipartisan legislation named in his honor, the Jason Simcakoski Memorial PROMISE Act. Senator Capito and I worked together on that.

I guess my quick question for you is how is the Wisconsin PDMP interacting with and sharing data with the VA, and are VA providers submitting their prescription data?

Ms. MAGERMANS. Yes, VA clinics in Wisconsin are submitting dispensing data to the PDMP and have been for several years, even before it was required of them. Then on the other end, prescribers and other health care professionals in the VA system can use the PDMP as a tool to help inform their prescribing and dispensing decisions.

The CHAIRMAN. Thank you, Senator Baldwin.

Senator Murray.

Senator MURRAY. Mr. Chairman, I'm going to submit my questions for the record. I just want to thank all of my colleagues. Many of my questions were answered, but this has been very helpful to us.

I would just reiterate that having the resources seems to me a critical part of this discussion we can't leave out. But thank you very much to all of you.

The CHAIRMAN. Thank you, Senator Murray.

Senator Whitehouse.

Senator WHITEHOUSE. Thanks, Chairman. Thank you to the panel, particularly Ms. Boss.

I'd like to get some advice from all of you. We've done the CARA bill, which I think was a very comprehensive and thorough piece of authorizing legislation, and we have the first half-billion of the billion that we've been promised that has been pushed out, in addition to the regular funding. I assume it goes without saying that meeting our commitment to get you the second half-billion this December in the funding bill would be very important to the success of your efforts. Correct across the board?

Ms. MAGERMANS. Yes.

Senator WHITEHOUSE. Yes. You're counting on it?

Ms. BOSS. Yes.

Senator WHITEHOUSE. One of the things that the CARA bill required was better coordination among PDMPs. In different states they didn't talk to each other, they distributed information to different groups, the whole thing was a mess, and we've tried to encourage that it be consolidated and coordinated.

Ms. Magermans, what is your advice to us in terms of getting a response from your peer group around the 50 states as to what we should be doing and what we should be seeing? Obviously, some may be laggards and they may not want to participate in encouraging certain things. But if it were possible for you and your colleagues or a majority of them to come up with some recommendations to keep this moving forward, I think that would be helpful.

We're not seeing as much action as I would like on this out of the Administration.

Do you think that's something that you would be capable of doing, the group of government officials that oversee PDMPs? Or is that asking too much?

Ms. MAGERMANS. I think PDMP administrators would greatly benefit from working together to learn from each other and to implement best practices based on others' experiences.

Senator WHITEHOUSE. Okay. Well, I will take advantage of that and try to figure out if I can get access to your network and start asking questions about where we should be right now, because wherever we should be right now, I know we're not there, and this is going to be worth some effort.

Ms. BOSS, one of the things that Rhode Island has done that is most novel has been to get those peer recovery coaches into the emergency departments so that when somebody comes in overdosed, they get a real opportunity for engagement before they get put back out on the street again. In that context, I have heard in a couple of places that the program bumps up against privacy protections of the patient, and I wonder if there are any lessons that we should take away from that experience in terms of considering whether there should be various types of exemptions from HIPAA, or whether there are good workarounds to HIPAA.

As you know better than anyone, we had a terrible, terrible tragedy with an adult son of parents who was heavily addicted and had been in and out of the emergency department over and over again, and by the time he finally died of an overdose, his parents had never been notified of this recurring problem. I think in every state there is a story to that effect.

To me, that's a bureaucratic failure. To me, we need to find a way to get through that so that the parents, the loved ones can be engaged, or if there's a complete breakdown of that relationship that perhaps some kind of a special master or something could be engaged.

But tell us about what the privacy problems are with the ED program.

Ms. BOSS. I think two different problems related to this. One would be the fact that hospitals are not able to contact family members without the express permission of the individual in their care, and that would be a HIPAA violation if they did. One of the workarounds that we're looking at is using our health information exchange to get prior approval from individuals before they hit the emergency room of who can be contacted in an emergency, so at a moment when they're not in the midst of, perhaps, active addiction, identifying, yes, you can contact my whomever, and then being able to use that through our health information exchange that the emergency rooms have access to.

Senator WHITEHOUSE. That would be something set up by folks between their primary care provider and themselves early on, as a matter of regular doctor visits.

Ms. BOSS. Correct. The second is the ability to contact the peers if the individual in that moment at the emergency room is saying, no, I don't want to talk to a peer. One of the workarounds that we've done is create a special authorization that says you may not

want to talk to a peer right now, you're in withdrawal, you're not feeling well, you're embarrassed, but can you sign this release and maybe they can contact you a day or two from now.

We're piloting that right now and we are seeing significant increases in the connections with peers. Because they're not employees of the hospital, you need permission to contact them. That release has been a workaround that looks, as a pilot, like it's going to be pretty successful in engaging peers post the emergency department.

Senator WHITEHOUSE. My time is up, so I won't ask any more questions, but I would invite anybody else who wishes to respond to that question of the ED and the privacy issues to do a response for the record. You'll be asked questions for the record, and if you could add that to your questions for the record, and if there's anything else.

I think this would be a very sensible place for us to do, Mr. Chairman, a little bit more work as a Committee.

Thank you very much to the terrific panel.

The CHAIRMAN. Thank you, Senator Whitehouse.

I would say to the witnesses I have to leave, but Senator Franken has agreed to chair the remainder of the hearing. We have votes in a few minutes, so it won't be long. We have Senator Casey, and we have Senator Warren, both of whom are here. He'll call on them in that order for their 5 minutes of questioning.

Let me thank each of you for very helpful testimony. I think you can tell from the attendance here and the careful questioning that we're very interested in learning from you what we can do to help.

Senator Casey, why don't you go ahead? Senator Franken, thank you for chairing the remainder of the hearing.

Senator CASEY. Mr. Chairman, thank you very much.

I first want to ask unanimous consent that a statement from the First Focus Campaign for Children, a statement for the record, be included in the hearing record for today.

Senator FRANKEN. [presiding] Without objection.

Senator CASEY. Thank you.

I want to thank the panel members for your testimony and for the work you do on this problem. I'm not sure any of us have encountered a problem of this severity, and the professionals in the room would know better than I. But we're particularly grateful for your work and for your testimony today.

I wanted to start with the question of funding. We've made, I think, good progress coming together, Democrats and Republicans, to recognize that this problem is so severe and so substantial that we've got to work together. We did that with the Comprehensive Addiction Recovery Act. We did that as well when we added dollars in the Cures Act at the end of last year. But we're still woefully short in terms of federal investment. That's why I recently introduced Senate bill 2004, the so-called Combatting the Opioid Epidemic Act. This bill would set aside \$45 billion over the next decade to address the epidemic, and the lion's share of that, of course, would go to the states.

If I can ask you this, if you can speak to your own state, your own assessment of what would happen, what additional actions might your state take if you had more federal funding for this epi-

demic. I'll focus particularly on Ms. Boss and Secretary Tilley, but anyone else who wants to comment on it is certainly free to do that.

Ms. BOSS. I thank you for that, and I was hoping to get a question like this. Rhode Island's response has been pretty comprehensive, but we know that there's more that we can do if we had better access.

Some of the things that I would touch upon have been mentioned before: pre-arrest diversion programs, very important, keeping people out of the criminal justice system; getting them access to treatment; rapid access through crisis centers, Safe Stations were mentioned, things like that are going to give rapid entry points to individuals to the treatment that they need; affordable naloxone is something that we're all concerned about, making sure that individuals can get Narcan that need Narcan; women-specific treatment, PPW programs. I know that CARA was looking at the importance of the PPW programs.

Increasing funding for peers; effective prevention campaigns. I think that the need for effective prevention and reaching beyond just the opioid crisis has been mentioned several times, but prevention, engaging families, youth, and increasing the education to effective media campaigns.

Research, we need research. We're not there yet. There's not a cure, and so we need better research. Finally, workforce development. We won't put a dent in this unless we have a workforce that's going to be able to address the need.

Thank you for that question.

Senator CASEY. Thanks very much.

Secretary Tilley.

Secretary TILLEY. Let me just reiterate, I concur with everything Rebecca said and just would add a couple of things. Take neonatal abstinence syndrome, for instance, any way you cut it, its impact on the Medicaid budget, any way you cut it, it's about a 10-to-1 return on investment. That's to the taxpayer, not to mention easing the suffering of an infant. Without that kind of funding—we had 1,300 babies born addicted. We have hospitals working day and night to prevent that kind of suffering. That would be the first and foremost thing I would say.

I would also say that I do believe that you're working together and locking arms on this. Senator McConnell called us directly after the passage of CARE. We had a meeting in the rural part of our state for 2 hours, and he listened in ways that—to your question, how we could fund this. I am anxious for the funding as well.

I do believe one thing that Rebecca would agree but did not mention. One of the pillars of care is also law enforcement, interdiction, the right kind. Again, in Kentucky we think we're doing that with LEAD. We're also using the Justice Center's Stepping Up model, the CSU Justice Center's Stepping Up model to get the mentally ill out of jails and prisons and into treatment, into the resources they need. We need that kind of funding. In interdiction, we've got to cutoff the supply.

We need everything. We need prevention and treatment, absolutely. We also need the right kind of interdiction, not rounding up peddlers and addicts but actually cutting off the head of the snake

here and drying the supply up. Part of that is the opioids, not just the heroin and fentanyl that's coming in and being illegally manufactured in China and other places across the globe. That has to stop. Our borders cannot allow that to flow in like it is today. I would add that to it.

I'd simply say I'd be remiss if I didn't mention the long-time efforts, too, of a group called UNITE in Kentucky, established by my Chairman Emeritus, Hal Rogers, that you all know well. We've been at this for so long in Kentucky that it feels good to have so much attention paid to this. It doesn't feel good in any way, but it's reassuring, so thank you for your help.

Senator CASEY. Thanks. I'll just end because I'm out of time. But on the research question, the intent of the bill, Senate bill 2004, is to dedicate about \$250 million to that. On neonatal abstinence, actually Senator McConnell and I already passed a bill last year—

Secretary TILLEY. Yes, sir.

Senator CASEY—that directs HHS to focus on that issue.

Thank you very much, Mr. Chairman.

Senator FRANKEN. Senator Baldwin.

I'm sorry. Elizabeth, Senator Warren.

Senator WARREN. That's all right. Thank you, Mr. Chair.

I've talked with people all over Massachusetts who are on the front lines in the opioid epidemic, and my staff and I also conducted a statewide survey, and I'll just give you some of the samples of what we heard.

At the High Point Treatment Center in Plymouth, Massachusetts, the addiction, treatment, and recovery service providers talked about the challenges they face in recruiting and retaining enough treatment professionals. At the Salem Fire Department, the first responders explained how they're saving lives by expanding the use of overdose reversal medications. At nearly every town hall, from Barnstable to Lowell to Springfield, people shared stories about family members and friends who have died or who continue to grapple with addiction. In many of our communities, police officers have focused on redirecting those with addiction away from incarceration and into treatment by working hand in hand with health care providers.

Secretary Tilley, I want to follow-up on that last point and on the work you've already engaged in. I know you've done a lot of work in Kentucky around criminal justice reform and improving access to addiction treatment. Can you just say a word about how important it is to have programs that get low-level drug offenders into treatment and support services instead of into prison?

Secretary TILLEY. It's one of, if not the most important thing we can do in criminal justice and in public health as it relates to this addiction nightmare we're in.

Senator WARREN. In both.

Secretary TILLEY. In both, for so many reasons, because there's only so much of our tax base that can be dedicated anywhere in this state, in our state, or in the country at the moment, and when you siphon off and cutoff the ability, because of your corrections population or this incredible crush on your core system or law en-

forcement, again you cutoff your ability to attack it in the right ways.

Then I would also say that you actually make the problem worse by incarcerating those who need treatment. It's criminogenic. You cutoff hope. You make it more difficult for them to get jobs with a felony on their record. We're working on reentry every day. The country is waking up to the fact that we have to give people that second and third chance at opportunity when they have criminal records. Seventy million Americans, because of this epidemic, in my mind, now have a criminal record in this country, one out of every three adults.

I could take the next 2 minutes and 25 seconds to detail each and every impact it's had on our system.

We have the highest percentage of children in Kentucky who have had or have an incarcerated parent. We have 8,500 kids today in foster care. If we could treat those in settings where they could keep their children—and that can occur, by the way—rather than having this incredible rate of per-capita incarceration for women—by the way, this country, out of every three women incarcerated in the world, one is here in the United States, and Kentucky is not doing much better than that as a state. We're working on that.

Senator WARREN. Let me ask you, though, in following up on this, I know that you mentioned earlier the LEAD program, the Law Enforcement Assisted Diversion program from Senator Murray's home state. We have a similar program in Massachusetts that we began with the Police Assisted Addiction Recovery Initiative, which was founded in Gloucester, Massachusetts. But the LEAD program allows police officers to redirect low-level drug offenders into community-based services instead of charging them with a drug offense. As you point out, it saves lives, saves money.

I just want to ask you, if you could, just underline for a minute here, we talk often when we're talking about addiction and how to fight back, we talk about the role of doctors, we talk about the role of hospitals in doing this, but we rarely talk about the role of supporting our police and the importance of supporting our police in this, and I just wonder—we have just a little tiny bit of time left. Could I ask you, Secretary Tilley, to say a word about that?

Secretary TILLEY. Absolutely. We have law enforcement officers that, again, work within our cabinet in one sense or another. By the way, thank you for the Angel Initiative, Massachusetts. We mentioned that earlier. Kentucky became the first to mimic that and is working well with our State Police posts.

Having said that, police, again front line soldiers in this regard, are overwhelmed, and they need more tools. Often times I have chiefs tell me that they need more social workers, frankly, in their departments to work with their officers, and the officers themselves tell me they need more social work capacity. We are training in things like crisis intervention, de-escalation. That yields tremendous results.

I would point you to, quickly, the Data-Driven Justice Initiative. It's now in the Arnold Foundation, law enforcement assisted diversion we are using now which began in Seattle, again Stepping Up, and all manner of ways to allow first responders to be trained in how to meet people in these situations and divert them away from

what is a crush on local jails, not to mention state prisons. Again, I think the redirection of these offenders is one of the most important things we could talk about today.

Senator WARREN. I really do appreciate that and couldn't agree more with your point. I led a number of my colleagues in calling for more funding to support LEAD and other diversion programs like it. Communities and police departments need every dollar they can get to be able to wage this battle.

When I talk to people in Massachusetts who are on the front lines in this epidemic, one thing that's clear to me is that President Trump's promises to treat the epidemic as a public health emergency won't get the job done unless there are also significant increases in federal funding to support them. Our patients and our families deserve this.

Thank you.

Thank you, Mr. Chairman.

Senator FRANKEN. Thank you, Senator Warren.

This whole area of criminal justice in the 21st Century Cures Act was proud to pass the Comprehensive Justice and Mental Health Act, which is about coordinating the criminal justice system and not incarcerating people who have addiction or mental health issues. I'm going to submit questions for the record on housing and doing that kind of coordinated care where you get facilitators to work with people who—very similar to what, Ms. Boss, you're doing in Rhode Island.

Thank you all.

The hearing record will remain open for 10 days. Members may submit additional information for the record within that time if they would like.

The HELP Committee will meet again on Tuesday, December 5th, at 10 a.m. for a hearing on Department of Education and Department of Labor nominations.

Thank you for being here again today. Thank you all for the work that you do day in and day out.

The Committee will stand adjourned.

[Whereupon, at 12:15 p.m., the hearing was adjourned.]

