

**UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
FEDERAL EFFORTS TO COMBAT THE OPIOID CRISIS: A STATUS UPDATE ON
CARA AND OTHER INITIATIVES**

WEDNESDAY, OCTOBER 25, 2017

Questions for the Record – Dr. Volkov

The Honorable Fred Upton

1. The 21st Century Cures Act promoted the importance of advancing precision medicine. NIH Director Francis Collins previously discussed the importance of knowing what medications work for what patients, in what doses, and at what times. How can advances in precision medicine be used to assess risks associated with opioid use disorder and identify the most clinically appropriate treatments? What is the NIH doing to improve awareness of the treatment options for opioid use disorder and examining efficacy of different treatments?

The 21st Century Cures Act provides support for the National Institute of Health's (NIH's) Precision Medicine Initiative (PMI) and the *All of Us* Research Program, which seeks to extend precision medicine to all diseases by building a national research cohort of one million or more U.S. participants.¹ This resource holds promise for understanding the lifestyle, environmental, and biological – including genetic – factors that may influence risk for addiction and treatment response to develop tailored therapies based on an individual's unique risk factors. Medical information related to substance use disorders (SUDs) may be subject to additional confidentiality protection under 42 CFR Part 2. In order to ensure that the *All of Us* cohort will be able to incorporate SUD treatment information, the National Institute on Drug Abuse (NIDA) program staff have been working closely with *All of Us* program staff to ensure that data that are subject to 42 CFR Part 2 can be incorporated into this resource.

Accelerating scientific research to address the ongoing opioid crisis is a top priority for NIH. To this end, NIDA has been part of a trans-NIH group coordinating with *All of Us* across all scientific domains, including *Mental Health & Addiction* and *Sensory, Pain & Neurologic*, with the long-term goal of creating precision approaches for both pain and opioid addiction treatment.

In order to improve awareness of effective treatments for opioid use disorder, NIDA has published the report *Medications to Treat Opioid Addiction*², providing a comprehensive overview of the current state of the science related to pharmacological treatments for

¹ <https://allofus.nih.gov/about/about-all-us-research-program>

² <https://www.drugabuse.gov/publications/research-reports/medications-to-treat-opioid-addiction/overview>

opioid use disorder (OUD). NIDA has also published data briefs to concisely present the evidence on the effective treatment options for opioid use disorder, including *Effective Treatments for Opioid Addiction*³ and *Treating Opioid Use Disorder During Pregnancy*.⁴

Toward the goal of examining relative treatment efficacy of existing medications for OUD, the results of a NIDA-funded comparative effectiveness study are expected to be published in November 2017 in *The Lancet* comparing buprenorphine/naloxone and extended release naltrexone (XR-NTX). These results will complement findings from a smaller Norwegian study comparing outcomes for patients taking buprenorphine/naloxone and those on XR-NTX.⁵

2. A recent study estimated that over half of the opioid prescriptions in the United States went to individuals with depression, anxiety and other mood disorders. According to the study, “after controlling for a wide array of other demographic and clinical risk factors...having a mental health disorder [like depression or anxiety disorder] is associated with increased opioid use.” Is it common for individuals with no prior history of substance abuse or comorbid psychiatric conditions to develop opioid use disorder? What research has the NIH performed to look into the possible connection between taking prescription opioids and the co-occurrence of opioid use disorder and mental health problems like depression or anxiety disorder?

Many individuals who develop opioid use disorder do not have a prior history of mental illness or substance use disorder. However, mental illness can contribute to the development of substance use disorders, and vice versa, and the same risk factors can impact both mental health and substance use. Because mood disorders increase vulnerability to drug use and addiction, the diagnosis and treatment of the mood disorder can reduce the risk of subsequent drug use. Because the inverse may also be true, the diagnosis and treatment of drug use disorders may reduce the risk of developing other mental illnesses and, if they do occur, lessen their severity or make them more amenable to effective treatment. Detailed information on the link between mental illness and substance use disorders is available in the NIDA Research Report entitled *Comorbidity: Addiction and Other Mental Illnesses*.⁶

It is important to note that many childhood risk factors for substance use also increase risk for other psychiatric and behavioral problems, including conduct disorder,

³ <https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction/effective-treatments-opioid-addiction>

⁴ <https://www.drugabuse.gov/publications/treating-opioid-use-disorder-during-pregnancy/treating-opioid-use-disorder-during-pregnancy>

⁵ Tanum, L., et al. (2017). "The Effectiveness of Injectable Extended-Release Naltrexone vs Daily Buprenorphine-Naloxone for Opioid Dependence: A Randomized Clinical Noninferiority Trial." *JAMA psychiatry*.

⁶ NIDA Research Report: *Comorbidity: Addiction and Other Mental Illnesses*. Available at: <https://www.drugabuse.gov/sites/default/files/rrcomorbidity.pdf>

depression, and delinquency.⁷ Shared genetic or biological risk factors may contribute to the emergence of mental illness and substance use, and symptoms of one may influence the development of the other. Prevention interventions often target these shared risk factors and have been shown to reduce risk for both substance use and addiction, as well as a range of behavioral health problems.⁸

NIDA, along with multiple NIH Institutes, Offices, and Centers, in partnership with the Centers for Disease Control and Prevention (CDC), is currently funding the Adolescent Brain Cognitive Development (ABCD) Study which is the largest long-term study of brain development and child health in the U.S, and the longitudinal nature of the study will help answer these questions. Because the ABCD Study is also collecting information about youth substance use, mental health, physical health, brain development, as well as cognitive and academic performance, scientists will be able to gain new insight into the connection between mental health and substance use disorders.

The Honorable Bill Johnson

1. The NIH has launched some initiatives to improve pain management education in medical, nursing, pharmaceutical, and dental schools. Can you give an update on the efforts of the Centers of Excellence in Pain Education (CoEPEs)?

The NIH Pain Consortium's Centers of Excellence in Pain Education (CoEPEs) program was first funded in the spring of 2012. NIH is currently funding 11 academic institutions in the US that act as hubs for the development, evaluation and distribution of pain curriculum resources for medical, dental, nursing, pharmacy and other health professional schools to enhance and improve how health care professionals are taught about pain and its treatment. Case-based scenarios form the backbone of the curriculum resources and 11 modules contain interactive digital elements to guide learners through with questions and answers, videos, and problem solving. There are currently six published case studies with five additional cases in the final stages of production. The CoEPEs facilities are now working on putting together proposals for eleven additional case studies for 2018.

The CoEPE modules are available through the NIH Pain Consortium Webpage (https://painconsortium.nih.gov/Funding_Research/CoEPEs). Further, the Department of Health and Human Services (DHHS) National Pain Strategy (NPS) provider education

⁷ National Research Council (US) and Institute of Medicine (US) Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions; O'Connell ME, Boat T, Warner KE, editors. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Washington (DC): National Academies Press (US); 2009. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK32775/> doi: 10.17226/1248

⁸ NIDA. Principles of Substance Abuse Prevention for Early Childhood. 2016. Available from: <https://www.drugabuse.gov/publications/principles-substance-abuse-prevention-early-childhood/index>.

effort, which is in the process of implementation, proposes to use the CoEPEs as the basis of a larger national pain education effort.

2. Alternative, non-addictive analgesics could prevent addiction before it starts. I understand that NIH is conducting research into potential opioid alternatives. Can you talk about the work being done and how it might help combat the opioid crisis?

In 2016 NIH spent \$483 million on pain research ranging from cell and molecular mechanisms of acute and chronic pain to safe, effective therapy development, to large scale clinical trials. The portfolio includes many projects that address the pressing need to develop new non-opioid, non-addictive pain treatments. Studies range from early-stage drug target discovery focused on molecular pathways of pain signaling including exploration of receptors and channels as potential non-addictive analgesic targets to testing in behavioral models. A number of targets identified through NIH basic science research, such as the nerve growth factor receptor and pain-related ion channels, are now being pursued in industry sponsored clinical trials of non-addictive treatments.

NIH is developing opioids with reduced risk of addiction and misuse. NIH-supported investigators are developing new compounds that exhibit novel properties as a result of their combined activity at different opioid receptors (mu, delta, and kappa). Compounds with combined activity at the mu and delta receptors or at all three receptors can induce strong analgesia without producing tolerance or dependence in animal models. In addition, discovery of adjunct medications that can be combined with opioids to reduce the needed dose, promise to result in lower potential for dependence and addiction. Innovative methods are being explored for drug delivery to increase specificity and efficacy and to reduce analgesic side effects, as well as modified formulations to enhance delivery.

NIH supports an initiative called the Blueprint Neurotherapeutics Program for small molecule drug discovery and development. For example, the National Institute of Neurological Disorders and Stroke (NINDS) funds studies through this program that aims to develop non-addictive kappa opioid receptor antagonists for migraine and a safe, non-opioid analgesic that can be taken orally to reduce diabetic nerve pain.

Other non-pharmacological approaches show promise for pain management. A tissue-based tool for screening potential migraine drugs is under development and a library of small molecules is being leveraged to screen for candidates for optimization as analgesics. Tissue engineering and regeneration to create tissue scaffolding and microenvironments to promote wound healing and joint cartilage and intervertebral disc replacements is being applied to relieve pain. Neural stimulation technologies for chronic intractable pain are being improved. For example, wearable ultrasound devices and implantable micro-stimulators are being tested for peripheral and central nervous system targets to relieve pain.

Evaluation and dissemination of complementary and integrative health approaches are a crucial component of quality pain management. NIH supported studies include

mechanism-based clinical studies on cognitive behavior therapy, exercise, yoga, acupuncture, massage and fitness, and mindfulness practices that are important components of the NIH federal pain research portfolio.

The Honorable Chris Collins

1. Despite the staggering overdose reports from my district’s coroners and the CDC, opioids are still primarily used for the treatment of pain. It is estimated that around 250 million Schedule II prescriptions are filled across the country each year. However, there are other effective options for pain management. For example, several academic peer-reviewed journals have found that states that have legalized the use of marijuana for medical purposes had significantly lower state-level opioid overdose mortality rates...and found that it was an effective form of pain management. Alternatively, anesthesia is utilized in various surgical and non-surgical procedures to improve perioperative [preoperative, intraoperative, and postoperative] pain control while minimizing systemic opioid consumption.

a. Under the Opioid State Targeted Response (STR) grants, are states using funds to educate physicians and providers on utilizing non-opiate treatment for pain?

(SAMHSA Primary)

2. CARA established the Pain Management Best Practices Inter-Agency Task Force to provide advice and recommendations for development of best practices for pain management and prescribing pain medication. The Task Force is also expected to develop a strategy for disseminating such best practices to relevant federal agencies [the Department of Veterans Affairs, Department of Defense, and Department of Health and Human Services] and the general public.

a. What is the current status of the nominations process? As this is an advisory committee, to what degree do you expect providers to adopt these practices? Please explain.

The Pain Management Best Practices Inter-Agency Task Force is being established by the Secretary of the Department of Health and Human Services in cooperation with the Secretary of Veterans Affairs and Secretary of Defense. The Office of the Assistant Secretary for Health (OASH) released a call for nominations for individuals to serve on the Task Force through the Federal Register on August 28, 2017. It is our understanding that the Office received hundreds of applications from qualified individuals, reflecting the high-level of interest in serving and indicating the significant attention directed to the task force. A careful and comprehensive tiered evaluation process was established for selection of the candidates. The breadth and quality of expertise of the nominees ensures that the membership requirements for balance and knowledge as outlined in CARA will be met. It is our understanding that OASH expects to complete the selection and approval process by the end of 2017 and to convene the first meeting of the committee early in 2018.

The pain and opioid crises have highlighted the important role of this task force and generated intense interest in the committee’s role and potential impact on pain management, including opioid prescribing practices. The committee can draw from the 2016 National Pain

Strategy which outlined a comprehensive program for pain management in the United States. Providers, especially those in primary care where most pain patients seek care, clearly are seeking better and more comprehensive clinical practice guidance for their patients with unmet needs for pain relief. It is expected therefore, that the task force recommendations will be disseminated and implemented broadly by the pain care community.

3. NIDA's Principles of Drug Addiction Treatment was created to address addiction to a wide variety of drugs, including nicotine, alcohol, and prescription drugs. It was first printed in October 1999 and revised in December 2012.

(a) Considering that robust new research has been published since that time, does NIDA have plans to produce a fourth edition?

(b) It has come to my attention that this document is not utilized by all healthcare providers and families with afflicted loved ones across the country. What can NIDA or Congress do to ensure that these types of resources are available to all stakeholders?

NIDA is currently in the process of creating a Principles of Opioid Addiction Treatment guide, summarizing the current state of the science on medications and evidence-supported behavioral therapies for opioid use disorder. It is expected to be completed by the fall of 2018. To ensure that information on evidence-based treatment is available to all stakeholders, NIDA also recently developed a Research Report on Medications for Opioid Addiction⁹ (released May 2017) and brief fact sheets for policymakers, healthcare providers, and other stakeholders on the state of the science of medications for opioid addiction.¹⁰ NIDA, along with the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and SAMHSA, also helped support the development of the American Society of Addiction Medicine's *ASAM Standards of Care*, which was released in 2014.

The Honorable Buddy Carter

1. NIH is currently undertaking a public-private initiative to develop new non-opioid therapies. That initiative is designed to bring to market less-addictive options for patients. 1. Dr. Volkow, I know that NIH is currently working on a public-private initiative. What do you currently have in the pipeline as non-addictive alternatives?

Addressing the opioid crisis is a top priority for the Trump Administration and the Department of Health and Human Services, including the National Institutes of Health (NIH). NIH supports a broad portfolio of research to develop and test strategies for the prevention and treatments of opioid use disorder (OUD). In addition, NIH is exploring a public-private collaborative research initiative to address the opioid crisis. The initial plan for this initiative was recently described by Drs. Collins and Volkow in the *New England Journal of Medicine* and includes three major areas for advancement: (1) *safe, more effective, and non-addictive strategies* for chronic pain management to prevent

⁹ <https://www.drugabuse.gov/publications/research-reports/medications-to-treat-opioid-addiction/overview>

¹⁰ <https://www.drugabuse.gov/publications/finder/t/902/policy-briefs>

misuse of and addiction to prescription opioids; (2) *new and innovative opioid addiction treatments* to reduce drug use and support recovery; and (3) *overdose reversal interventions* to reduce mortality and promote access to treatment.¹¹

To identify the scientific strategies with the greatest potential, NIH brought together innovative experts from government, industry, and academia for a series of three cutting-edge science meetings. Plans are underway to develop a draft strategy for collaborative activities including major goals of the initiative, action steps, key partners, deliverables, timeline, and resources (in-kind and financial costs) to fully carry out the proposed action steps. The Foundation for the National Institutes of Health will solicit input on the final draft from participants including Federal partners as well as other relevant stakeholders. Upon final approval of the plan, it will be posted on the NIH website at: <https://www.nih.gov/opioid-crisis>

In 2016 NIH spent \$483 million on pain research ranging from cell and molecular mechanisms of acute and chronic pain to safe, effective therapy development, to large scale clinical trials. The portfolio includes many projects that address the pressing need to develop new non-opioid, non-addictive pain treatments. Studies range from early-stage drug target discovery focused on molecular pathways of pain signaling including exploration of receptors and channels as potential non-addictive analgesic targets to testing in behavioral models. A number of targets identified NIH basic science, such as the nerve growth factor receptor and pain-related ion channels, are now being pursued in industry sponsored clinical trials of non-addictive treatments.

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NIH supports an initiative called the Blueprint Neurotherapeutics Program for small molecule drug discovery and development. For example, the National Institute of Neurological Disorders and Stroke (NINDS) funds studies through this program that aim to develop non-addictive kappa opioid receptor antagonists for migraine and a safe, non-opioid analgesic that can be taken orally to reduce diabetic nerve pain.¹²

¹¹ Volkow, N. D. and F. S. Collins (2017). "The Role of Science in Addressing the Opioid Crisis." *New England Journal of Medicine* 377(4): 391-394.

¹²

https://projectreporter.nih.gov/project_info_description.cfm?aid=9325694&icde=36528658&ddp_aram=&ddvalue=&ddsub=&cr=3&csb=default&cs=ASC&pball=

Other non-pharmacological approaches show promise for pain management. For example, new molecules are being developed as analgesics and new tissue-based engineering tools are being used to develop microenvironments that promote wound healing. Additionally, joint cartilage and intervertebral disc replacements are being applied to relieve pain and neural stimulation technologies are being improved for chronic pain. For example, wearable ultrasound devices and implantable micro-stimulators are being tested for peripheral and central nervous system targets to relieve pain.

Evaluation and dissemination of complementary and integrative health approaches are a crucial component of quality pain management. NIH supported studies include mechanism-based clinical studies on cognitive behavior therapy, exercise, yoga, acupuncture, massage and fitness, and mindfulness practices that are important components of the NIH federal pain research portfolio.

2. Who are you currently working with and what’s the timeline? Does there need to be a legislative fix to speed these alternatives to market?

To fight the opioid crisis, an all hands-on deck strategy is needed. NIH is enlisting partners across government and the private sector to develop scientific solutions to this public health crisis. NIH is currently in the process of partnering with pharmaceutical companies, but the list of partners is not yet finalized. Regarding any legislative fixes, the Department of Health and Human Services is undergoing a department-wide process to identify what authorities or changes in statute would be helpful.

The Honorable Susan Brooks

1. I have heard you say that preventing drug use before it begins is the most cost-effective way to reduce drug use and its consequences. In your opinion, what are the characteristics of successful prevention intervention programs? Besides lack of resources, what are the barriers to implementing intervention programs?

The National Institute on Drug Abuse (NIDA) continues to fund a robust prevention portfolio that builds upon solid epidemiological findings and insights from genetics and neuroscience research, applying this knowledge to develop effective strategies to prevent initiation of drug use and escalation of use to addiction among youth. Highly effective evidence-based drug use prevention interventions and drug addiction treatment approaches have been developed and tested. These are well detailed in the Surgeon General’s Report on Alcohol, Drugs and Health.¹³ NIH’s current prevention portfolio encompasses a broad range of research to (1) increase our understanding of the factors – including genetic, psychological, and environmental – that enhance or mitigate an

¹³ Surgeon General’s Report on Alcohol, Drugs, and Health. 2016. at <https://addiction.surgeongeneral.gov/>

individual's risk for drug use and substance use disorders; and (2) develop and testing intervention strategies targeted to high-risk populations.

For example, KEEP SAFE is a family-based and skill-focused program designed to prevent substance use and other related health risking behaviors among youth in foster care. Research indicated that the intervention significantly reduced substance use in foster youth at 18 months post-baseline and that the intervention influenced substance use through two processes: youths' improved quality of relationships with caregivers at 6 months post-baseline and fewer associations with deviant peers at 12 months post-baseline. This suggests that these two processes may be important targets in substance use prevention programs for foster youth.

Broad adoption of evidence-based prevention interventions has been limited due to implementation challenges that span financial, regulatory, geographic, attitudinal, and logistical issues. Ongoing research is working to develop strategies to translate evidence-based practices in a way that confers population-level impact,¹⁴ including for developing implementation capacity, and implementation and sustainability of evidence-based practices across systems and settings. For example:

- Organizational and system supports for evidence-based implementation
- Work-force development and training
- Ongoing fidelity monitoring
- Continuous quality improvement
- Financing

In addition, NIH supports basic research to understand the impact of drug use during adolescence on brain development. Adolescence is a period of intense brain and cognitive development. During this time, one's environments, experiences, and exposures shape brain structure and function, and ultimately adult identity. Brain research, particularly in the last decade, has opened new windows to understanding the adolescent brain, but there is much we still do not know about the normal trajectory of brain development during adolescence and the many experiences that may enhance or disrupt it, such as substance use. To address this gap, NIH, in partnership with the Centers for Disease Control and Prevention (CDC), is funding the landmark Adolescent Brain Cognitive Development (ABCD) Study¹⁵, a multi-site, longitudinal investigation of 10,000 children from ages nine and ten into early adulthood. As of October 2017, over 6,500 youth have enrolled in the study. The actionable information coming out of this study will be a foundation upon which to develop and refine substance use prevention and treatment as well as other health promotion interventions that are rooted in a deep understanding of the neurobiological and psychosocial factors that influence adolescent health and wellness to optimize the wellbeing and success of our Nation's children.

¹⁴ Spoth R, Rohrbach LA, Greenberg M, et al. Addressing core challenges for the next generation of type 2 translation research and systems: the translation science to population impact (TSci Impact) framework. *Prev Sci* 2013;14:319-51.

¹⁵ <http://abcdstudy.org/index.html>

In particular, more research is needed to improve strategies for prevention of risky drug use among those aged 18-30, and to develop evidence-based strategies for the prevention of opioid misuse that preserve access to effective pain management. In addition, more research is needed to develop strategies for transforming health systems and other public and private service platforms for successful integration of sustainable, evidence based drug use prevention interventions.

Finally, NIH would like to note that this year, a new study called the Advancing Clinical Trials in Neonatal Opioid Withdrawal Syndrome (ACT NOW) will evaluate treatment options and improve clinical care of infants with Neonatal Abstinence Syndrome (NAS)/NOWS. The study is a collaboration between the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development's (NICHD's) Neonatal Research Network (which has 30 years of experience in conducting clinical trials with newborns) and the new IDeA States Pediatric Clinical Trials Network (within the NIH Office of the Director's Environmental Influences on Child Health Outcomes (ECHO) Program), with sites located in rural and medically underserved communities. This joint research effort will use the reach of both networks to assess the prevalence of NAS, understand current approaches to managing NOWS cases (including non-pharmacological approaches), and develop protocols for conducting large scale studies across the country to inform clinical care for affected infants.

2. Please describe the NIDA-supported research that is investigating how to improve access to treatment for incarcerated individuals. How is NIDA working with state and local communities on this particular problem?

NIDA's Juvenile Justice Translational Research on Interventions for Adolescents in the Legal System (JJ-TRIALS) cooperative was established in 2013 and is composed of six research centers and one coordinating center. The main study is a randomized trial that involves 36 sites in seven states and aims to test the effectiveness of two implementation strategies for promoting system-wide change to improve the continuum of substance use services for juvenile offenders under community supervision.¹⁶ JJ-TRIALS has led to the development of the Juvenile Justice Behavioral Health Services Cascade, a framework for measurement of unmet substance use treatment needs that can be used to identify services delivery needs and develop strategies to address them.¹⁷

Beyond juvenile populations, NIDA currently is funding research to test the feasibility and utility of depot formulations of buprenorphine and naltrexone to prevent relapse to

¹⁶ Knight DK, Belenko S, Wiley T, et al. Juvenile Justice—Translational Research on Interventions for Adolescents in the Legal System (JJ-TRIALS): a cluster randomized trial targeting system-wide improvement in substance use services. *Implementation Science : IS* 2016;11:57.

¹⁷ Belenko S, Knight D, Wasserman GA, et al. The Juvenile Justice Behavioral Health Services Cascade: A new framework for measuring unmet substance use treatment services needs among adolescent offenders. *Journal of Substance Abuse Treatment*; 74:80-91.

opioid use and recidivism in incarcerated opioid-dependent individuals.¹⁸ Barriers to care also are being investigated, with research specific to the difficulties that justice-involved veterans have in accessing medications for Opioid Use Disorder (OUD)¹⁹ and development of eLearning tools to improve attitudes toward medications in drug and felony courts.²⁰

The period of transition from incarceration to community living can cause disruption in care for substance use disorders and for associated health conditions such as HIV and Hepatitis C. NIDA funds research to identify barriers and facilitators of linkage to care following incarceration, along with research to develop interventions to improve care continuity, reduce overdose risk, and identify factors specific to vulnerable sub-populations. This research includes:

- Development of an intervention to support initiation of buprenorphine or methadone treatment following release from incarceration^{21,22};
- Evaluation of pre-release initiation of extended-release naltrexone (XR-NTX) followed by post-release home visits for XR-NTX injection delivery²³;
- Development of a program to optimize HIV treatment outcomes for women under community correctional supervision²⁴; and
- Development and testing of behavioral interventions to reduce risky behaviors and improve treatment adherence post-release.^{25,26}

3. In your opinion, what are the most pressing gaps in data collection that must be addressed in order to stem the tide on this crisis? We hear a lot about the underreporting of overdose deaths – what are the contributing factors that lead to underreporting and inaccurate reporting and what is NIDA doing to address that?

(CDC Primary)

¹⁸ [4U01DA034743-04–DEPOT PHARMACOTHERAPIES FOR OPIOID-DEPENDENT OFFENDERS: OUTCOMES AND COSTS](#)

¹⁹ [1R21DA041489-01A1–IMPROVING ACCESS TO PHARMACOTHERAPY FOR OPIOID USE DISORDER AMONG JUSTICE INVOLVED VETERANS](#)

²⁰ [5R34DA038799-03–FACILITATING MAT ACCEPTANCE & IMPLEMENTATION IN PROBLEM SOLVING & FELONY COURTS](#)

²¹ [5K23DA034541-06–BUPRENORPHINE FACILITATED ACCESS AND SUPPORTIVE TREATMENT IN FORMER INMATES](#)

²² [5K24DA022112-10–HIV AND ADDICTIONS AMONG CRIMINAL JUSTICE-INVOLVED POPULATIONS](#)

²³ [5R01DA040636-02– LONG-ACTING NALTREXONE FOR PRE-RELEASE PRISONERS: A RANDOMIZED TRIAL OF MOBILE TREATMENT](#)

²⁴ [4K23DA033858-05– EVALUATING AND IMPROVING HIV OUTCOMES IN COMMUNITY-BASED WOMEN WHO INTERFACE WITH](#)

²⁵ [5R01DA025885-09–SUSTAINABLE HIV RISK REDUCTION STRATEGIES FOR CJ SYSTEMS](#)

²⁶ [1R36DA043393-01A1– ADDRESSING OVERDOSE RISK AMONG RECENTLY INCARCERATED PEOPLE LIVING WITH HIV/AIDS](#)

4. Please describe any current or planned programs in which NIDA would collaborate with state governments to scale-up evidence-based research in prevention or treatment.

NIDA-funded researchers are partnering with states to examine the strategies that are being used to increase access to opioid use disorder medications through the SAMHSA State Targeted Response to the Opioid Crisis Grants that were funded through the 21st Century Cures Act. Five NIDA-funded research projects will help evaluate:

- The creation and deployment of the Patient Decision Aid for Medication-Assisted Treatment (PtDA- MAT), a patient-centered decision tool to promote the use of medications, assess patient values and preferences, and incorporates scientific evidence to increase patients' understanding of possible medication risks, benefits, alternatives, and their associated outcomes.²⁷
- The Recovery Initiation and Management after Overdose (RIMO) protocol for individuals who are revived from an opioid overdose. The protocol is initiated within a week of nonfatal overdose and includes assertive recovery supports and facilitates linkage with evidence-based treatment for OUD using medications.²⁸
- Planned Outreach, Intervention, Naloxone, and Treatment (POINT), an emergency department-based outreach program for engaging opioid overdose survivors in Indiana with treatment. Recovery coaches are deployed to emergency departments to assist patients with accessing medication-assisted treatment after discharge from the emergency department.²⁹
- A Rhode Island initiative is focused on expanding the medication assisted treatment workforce by developing and testing a pharmacist-delivered intervention for the management of patients who are stable on medications. This model will also be refined and tested to provide continuity in medication assisted treatment for patients who are being released from incarceration.³⁰
- The Hub & Spoke model for provision of medication assisted treatment in primary care settings. This model is being tested in Washington state with a study that focuses on adults with OUD who are covered by Medicaid.³¹

In addition, NIDA has partnered with states and several other federal agencies to address the opioid crisis in rural U.S. regions, issuing funding opportunities to help communities

²⁷https://projectreporter.nih.gov/project_info_description.cfm?aid=9513338&icde=36846083&dparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball=

²⁸https://projectreporter.nih.gov/project_info_description.cfm?aid=9511074&icde=36846131&dparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball=

²⁹https://projectreporter.nih.gov/project_info_description.cfm?aid=9513197&icde=36846207&dparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball=

³⁰https://projectreporter.nih.gov/project_info_description.cfm?aid=9513201&icde=36846245&dparam=&ddvalue=&ddsub=&cr=4&csb=default&cs=ASC&pball=

³¹https://projectreporter.nih.gov/project_info_description.cfm?aid=9513139&icde=36846292&dparam=&ddvalue=&ddsub=&cr=2&csb=default&cs=ASC&pball=

develop ways to comprehensively prevent and treat Substance Use Disorder (SUD), overdoses, and infectious disease transmission related to injection drug use. These projects support the work of state and local communities in developing best-practice responses that rural public health systems can implement. The grants are co-funded by the Appalachian Regional Commission, the Centers for Disease Control and Prevention (CDC), and the Substance Abuse and Mental Health Services Administration (SAMHSA).

The Honorable Ben Ray Lujan

In 2015, 33,000 Americans died from opioids. According to the CDC, almost half of those deaths were from prescription opioids. The New York Times reports that in 2016, overdoses from all drugs was the leading cause of death of people under the age of 50. Drug overdoses now kill more Americans each year than at the height of the HIV epidemic and the worst year for auto accident deaths. The Times and drug use experts attribute the sharp rise in all drug overdose deaths to the rise of opioids. What we need to fight this epidemic is continued and reliable long-term investments in prevention, treatment, recovery, and monitoring.

The President's budget proposal for fiscal year 2018, coupled with other administration initiatives, takes several steps back in the fight against opioid addiction, including a cut in funds for SAMHSA. Overall, the President's proposed budget cuts HHS by 16.2 percent, the CDC by 17 percent and NIH by 19 percent. It cuts funding for addiction research, treatment and prevention. Even the White House Office on National Drug Control Policy would take a 95 percent hit.

1. Director Volkow, do you have all of the tools you need to stop the opioid epidemic?

To fight the opioid crisis, an all hands-on deck approach is needed. NIH is enlisting partners across government and the private sector to deliver scientific solutions to this public health crisis. Regarding tools we may need, the Department of Health and Human Services is undergoing a department-wide process to identify what authorities or changes in statute would be helpful.

2. Given the 19 percent cuts to NIH in the President's budget proposal, what programs relating to the opioid epidemic will be cut? Which programs would have been expanded that will now not be?

Addressing the opioid crisis is a top priority for the Department of Health and Human Services, including NIH. We will prioritize research to develop solutions for this crisis and strive to accelerate progress as quickly as available resources will allow.

The Honorable Frank Pallone, Jr.

1. Dr. Volkow and Dr. McCance-Katz I would like to ask you a few questions related to treatment approaches for opioid use disorder. I have been particularly struck by stories of individuals with opioid use disorder and families who have been targeted and referred to low quality and non-evidence-based treatment services. As I'm sure you're aware, in many cases, this has led to tragic consequences upon leaving such programs.

(a) Dr. Volkow and Dr. McCance-Katz – I understand that the evidence is clear that medication-assisted treatment is the gold standard of opioid use disorder treatment. What are some of the barriers of widespread uptake for this treatment approach?

(b) What is the difference between this and other chronic conditions as far as uptake of evidence-based medical care? And could you dispel some of the stigma that exists about the use of medications to treat this chronic condition that doesn't exist for the use of medications to treat like diabetes or heart disease?

(c) What are you doing to increase awareness among the general public and the medical community about these evidence-based approaches to opioid use disorder?

(a) Medication-Assisted Treatment (MAT) has been adopted in less than half of private-sector treatment programs, and even in programs that do offer MAT, only 34.4 percent of patients with opioid use disorder (OUD) receive it.³² The barriers are many, including a limited number of trained prescribers and settings in which people with OUD can obtain treatment; negative attitudes and misunderstandings about MAT held by the public, providers, and patients; and policy and regulatory barriers. Although there are currently over 45,000 DEA-registered Data Waive practitioners and over 1,600 DEA-registered narcotic treatment programs throughout the U.S., those are mainly focused on highly-populated, metropolitan areas and limited access still exists in more scarcely-populated areas of the country.

In the past, the only medication available to treat opioid addiction was methadone and it was available only through opioid treatment programs, which were separate from the rest of healthcare. With the approval of buprenorphine in 2002 and then naltrexone in 2010, MAT became available from office-based physicians. However, clinicians may administer buprenorphine only if they hold special waivers. There remains a shortage of qualified, waived physicians able to deliver buprenorphine.

For decades, a common concern was that maintenance therapy (methadone and, more recently, buprenorphine) “substitutes one addiction with another,” a legacy of older, 12-step models of recovery that avoided all use of medications. Despite common myths, when someone is treated with methadone or buprenorphine the dosage of medication used does not produce euphoria, it helps to control cravings and withdrawal symptoms in

³² Knudsen HK, Abraham AJ, Roman PM. Adoption and implementation of medications in addiction treatment programs. *J Addict Med.* 2011;5(1):21-27. doi:10.1097/ADM.0b013e3181d41ddb.

opioid-dependent patients, thus enabling them to function at work, in family life and relationships, and participate in treatment. These medications restore balance to the brain circuits that have been dysregulated by addiction, allowing the patient’s brain to heal while they work towards recovery. Unfortunately, provider skepticism still contributes to low adoption of MAT; this skepticism also contributes to systematic prescription of inadequate doses or inadequate duration of treatment.³³

Other impediments have to do with public and private insurance coverage. Most commercial insurance plans cover some opioid-addiction medications—most commonly buprenorphine—and Medicaid can cover buprenorphine and methadone in every state. However, even when MAT is covered, insurers (including Medicaid programs or their managed-care organizations) may impose limits on dosages prescribed, annual or lifetime medication limits, initial authorization and reauthorization requirements, minimal counseling coverage, and “fail first” criteria requiring that other therapies be attempted first.³⁴ These structural impediments synergize with attitudinal ones, for instance by encouraging insufficient dosing/duration, which causes treatment to fail, which leads to a perception that MAT is not effective. Also, few private insurance plans cover extended-release naltrexone, and most do not cover methadone provided through opioid treatment programs.

(b) Although cost of medication may sometimes constitute impediments to obtaining high-quality treatment for other diseases, no other common, devastating health condition has so many barriers to care that in one way or another come down to stigma—against the disease and against the idea of treating it as a medical condition. Abundant research has made clear that MAT, when delivered at a clinically appropriate dose, reduces illicit opioid use, risk of relapse and overdose, risk of infectious disease transmission, and associated criminality.

(c) To dispel misconceptions about MAT and educate the public and providers about MAT’s effectiveness in treating OUD, the National Institute on Drug Abuse (NIDA) has produced a range of web-based materials on MAT including a Research Report on Medications for Opioid Use Disorder³⁵ (released May 2017) and brief fact sheets for policymakers, healthcare providers, and other stakeholders on the state of the science of medications for opioid addiction.³⁶ NIDA has also published extensively on the need for expanded access to MAT in professional publications and the popular press. NIDA has also partnered with other federal agencies to promote access to MAT, for instance the 2016 Surgeon General’s Report on Alcohol, Drugs, and Health, and SAMHSA’s upcoming Principles of Mental Health and Substance Use Disorder Treatment for Criminal Justice Populations.

³³ <http://www.nejm.org/doi/ref/10.1056/NEJMp1402780#t=references>

³⁴ Clark RE, Baxter JD. Responses of state Medicaid programs to buprenorphine diversion: doing more harm than good? *JAMA Intern Med* 2013;173:1571-1572.

³⁵ <https://www.drugabuse.gov/publications/research-reports/medications-to-treat-opioid-addiction/overview>

³⁶ <https://www.drugabuse.gov/publications/finder/t/902/policy-briefs>

