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Human services programs and the opioid crisis

The current opioid epidemic has devastated families and communities and shattered lives. In 2018, 10.3 million Americans aged 12 or older misused prescription opioids, over 800,000 used heroin, and 2 million had an opioid use disorder (see text box for opioid crisis statistics).¹ On average, 130 Americans die each day from an opioid overdose. While the crisis affects all states, it is most severe in the Northeast, Rust Belt (Midwest), Appalachia, and much of the South. This geographical disparity is reflected in the variation in drug overdose death rates, as shown in Figure 1. Although substance abuse and addiction are complex social problems experienced by people from all walks of life, recent evidence suggests that opioid use disorder and social and economic disadvantage are often intertwined.²

Opioid crisis statistics



Approximately 130 people died every day from opioid-related drug overdoses in 2017, a total of 47,600 deaths over the year.



In 2018, 2 million people had an opioid use disorder; 10.3 million people misused prescription opioids; and 2 million people tried opioids for the first time.

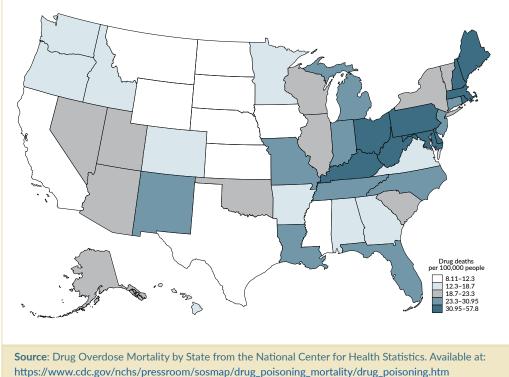


Some 886,000 people used heroin in 2018, 81,000 of them for the first time.

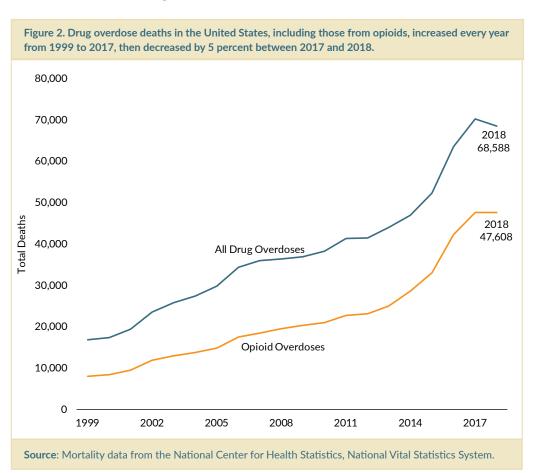


More than 1.8 million people used methamphetamine in 2018, an increase of over 30 percent since 2016.

Figure 1. Drug overdose death rates vary considerably by state, but are highest in the Northeast, Midwest, Appalachia, and sections of the of the South: 2017.



Focus, 2 -



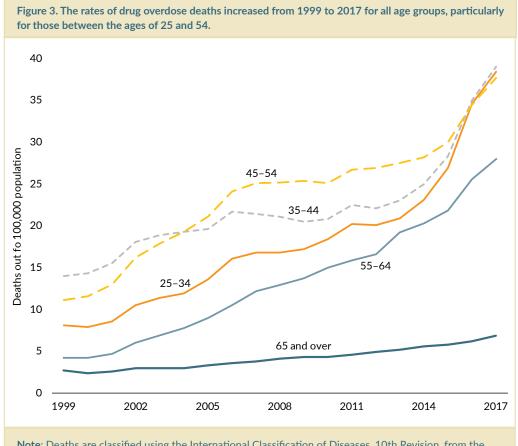
Deaths from opioids increased each year from 1990 to 2017, then decreased somewhat between 2017 and 2018 (Figure 2).

The opioid crisis affects various groups of people in different ways. One relevant factor is age; those between the ages of 25 and 54 had the highest rates of drug overdose deaths over time, though rates for those between the ages of 55 and 64 have also risen steeply (Figure 3). Losing so many adults during their prime earning years, and when many are raising children, could have important ramifications for both families and the economic health of affected communities.

The opioid epidemic also has differential effects on women and men. When women use opioids during pregnancy, their babies may be born with neonatal abstinence syndrome (NAS) and require treatment to safely withdraw them from the substance. For men, an increase in opioid prescriptions may be related to a decline in men's labor force participation, perhaps because those who are out of work may find it difficult to return due to reliance on pain medication. Many men who enter substance abuse treatment programs also have concurrent issues, such as homelessness and criminal justice involvement, that require treatment providers to interact with other systems.

Where people live also matters. Recent national statistics suggest that in cities, opioid supply is a key factor in opioid usage and overdose rates, while in rural areas levels of economic distress appear more pertinent.³ Areas with both a high supply of opioids and economic challenges are likely to experience the highest levels of opioid misuse.

Finally, the effects of opioid use vary by race and ethnicity. While whites and American Indians have long had the highest opioid overdose death rates among racial and ethnic



Note: Deaths are classified using the International Classification of Diseases, 10th Revision, from the Centers for Disease Control and Prevention.

Source: Mortality data from the National Center for Health Statistics, National Vital Statistics System.

groups, in recent years the drug overdose death rate has increased most sharply among African Americans.⁴

In 2011, the U.S. Centers for Disease Control and Prevention declared an opioid epidemic. The U.S. Department of Health and Human Services then developed a five-point strategy to address the crisis⁵:

1. Better addiction prevention, treatment, and recovery services

There are many new and promising programs to prevent substance misuse and to support those in recovery. There is also substantial evidence about the efficacy of Medication Assisted Treatment (MAT). In combination with counseling and behavioral therapies, medications such as Methadone, Buprenorphine, and Naltrexone are used to normalize brain chemistry by blocking the euphoric effects of opioids, relieving physiological cravings, and reducing withdrawal symptoms.

2. Better data

Public health data reporting and collection needs to be strengthened to improve the timeliness and specificity of data to help stakeholders monitor the opioid crisis and to permit a real-time public health response as the epidemic evolves. Sharing data across programs could help provide more coordinated care.

3. Better pain management

It is important to remember that many people who misuse opioids began taking them to manage pain. Advancing the practice of pain management to enable access to highquality, evidence-based pain care will improve people's well-being while also reducing opioid misuse.

4. Better targeting of overdose reversing drugs

Targeting the availability and distribution of overdose-reversing medications, particularly to high-risk populations, will help make these drugs available to the people most likely to experience or respond to an overdose.

5. Better research

Research can help advance our understanding of pain, overdose, and addiction; lead to the development of new treatments; and identify effective public health interventions to reduce the negative effects of opioids.

While the adverse effects of the opioid crisis on individuals, families, and communities are well established, less is known about how the epidemic may inhibit human services programs from achieving their goals, including family stability, child well-being, and self-sufficiency. Human services programs provide essential assistance to families and individuals who are struggling with opioid and other substance use disorders. Many clients are also experiencing concurrent issues, which include poverty, homelessness, and involvement with the criminal justice system. The challenges faced by human services programs because of the opioid crisis vary by program. Some programs, such as those dealing with child welfare, have a history of dealing with issues around addiction but need to shift strategies to reflect the best evidence-based treatment options for families affected by this crisis. Other programs, such as Head Start, may have mechanisms in placeincluding home visits—that can be adapted to respond to the crisis, though substantial additional training and funding may be required. Strategies such as coordinating funding from two or more sources to support the total cost of services can help boost available resources. Finally, some programs, such as employment and training programs, may offer no services around addiction, and may even exclude those with substance use issues from obtaining services. Adapting services to allow for concurrent opioid treatment and recovery supports may present significant challenges to these programs.

While the adverse effects of the opioid crisis on individuals, families, and communities are well established, less is known about how the epidemic may inhibit human services programs from achieving their goals, including family stability, child well-being, and self-sufficiency.

Trauma, as experienced by both those who are addicted and by the service providers who work with them, is an important factor in addressing opioid misuse. Adverse childhood experiences and other traumas are common among people with substance use disorders. Secondary trauma is a growing concern for the individuals who work with those suffering from opioid use disorder, including health care providers and first responders. These professionals may also experience trauma from the sheer number of individuals they see who are misusing opioids, particularly in responding to those who overdose. Acknowledging and incorporating trauma-informed practices into care is a challenge, particularly for medical models of treatment. The September 2019 poverty research and policy forum, *Human Services Programs and the Opioid Crisis*, convened by the Institute for Research on Poverty in partnership with the Office of Human Services Policy, Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, examined how the opioid epidemic has affected the delivery of human services, and what role those services can play in mitigating the negative effects of the crisis on individuals, families, and communities. The forum had three objectives:

- To understand how the opioid crisis is hindering human services programs in meeting their objectives;
- To understand how human services programs can facilitate successful treatment and recovery for individuals with opioid use disorder; and
- To understand how human services programs can address the effects of the opioid crisis on their objectives.

The forum brought together over 200 stakeholders from the researcher, practitioner, and policymaking communities, representing 29 states and from a broad range of organizations including eight federal agencies as well as numerous state and local governments, nonprofit organizations, and universities. This is the first of two issues of *Focus* to feature material from the forum. This issue contains a summary of the keynote address given by Dr. Stephen Patrick, a neonatologist at Monroe Carnell Jr. Children's Hospital at Vanderbilt University. In addition, it provides four brief summaries of breakout sessions about how human services programs can address the effects of the opioid crisis on their objectives. Each breakout session focused on a different area of human services, as follows: (1) child welfare; (2) self-sufficiency supports; (3) early childhood care; and (4) adolescents and young adults. The second *Focus* issue on the opioid crisis forum will explore in detail the challenges that the opioid crisis presents for human services programs, and how programs are striving to support successful treatment and recovery.

¹For opioid-related drug overdoses, see: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, 2019 National Survey on Drug Use and Health, Mortality in the United States, 2018; For opioid use, see: H. Hedegaard, A. M. Miniño, and M. Warner, "Drug Overdose Deaths in the United States," NCHS Data Brief No. 329, National Center for Health Statistics, November 2018; For heroin use, see: Wide-Ranging Online Data for Epidemiologic Research (WONDER), Atlanta, GA: CDC, National Center for Health Statistics, 2017; For methamphetamine use, see: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, 2002–2018 National Survey on Drug Use and Health, Table 7.2A.

²UW–Madison Institute for Research on Poverty, "The Opioid Epidemic and Socioeconomic Disadvantage," Fast Focus 32-2018, March 2018. Available at: <u>https://www.irp.wisc.edu/resource/the-opioid-epidemic-and-socioeconomic-disadvantage/</u>

³S. Monnat, "The Contributions of Socioeconomic and Opioid Supply Factors to Geographic Variation in U.S. Drug Mortality Rates," Working Paper No. 87, Institute for New Economic Thinking, New York, 2019.

⁴J. Katz and A. Goodnough, "The Opioid Crisis Is Getting Worse, Particularly for Black Americans," The New York Times, December 22, 2017. Available at: <u>https://www.nytimes.com/interactive/2017/12/22/upshot/opioid-deaths-are-spreading-rapidly-into-black-america.html</u>

⁵U.S. Department of Health and Human Services, "Strategy to Combat Opioid Abuse, Misuse, and Overdose: A Framework Based on the Five Point Strategy, September 2018. Available at: <u>https://www.hhs.gov/opioids/sites/default/files/2018-09/opioid-fivepoint-strategy-20180917-508compliant.pdf</u>

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Understanding the needs of families during the opioid crisis

Stephen W. Patrick

TAKEAWAYS

Traditional models of caring for opioidexposed infants are inefficient and expensive; better outcomes can be achieved with newer models that keep mother and infant together and out of intensive-care settings after birth.

Treatment should focus on all substance use, not just use of opioids.

Most people who need treatment are not getting it.

Context matters; both community characteristics and individual exposure to trauma are correlated with opioid use disorder.



The September 2019 Annual Poverty Research and Policy Forum, "Human Services Programs and the Opioid Crisis," was convened by the Institute for Research on Poverty at the University of Wisconsin–Madison, in partnership with the Office of Human Services Policy, Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. The forum focused on how the opioid crisis has affected the delivery of human services, and what role those services can play in ameliorating the negative effects of opioid misuse on individuals, families, and communities. This article summarizes the keynote presentation given by Dr. Stephen Patrick, a neonatologist at Monroe Carnell Jr. Children's Hospital at Vanderbilt University.

Human services programs provide essential services to families and individuals who are struggling with opioid and other substance use disorders. In this article I review the history of the opioid crisis in the United States, discuss neonatal abstinence syndrome, identify some key issues to keep in mind when considering the opioid crisis, and then consider policy implications.

A brief history of opioids in the United States

1827	Pharmaceutical company Merck developed morphine for pain relief and the treatment of opium addiction and alcoholism.
1829	Merck introduced heroin as a safe and non-addictive alternative to morphine.
Early 1900s	American Medical Association approved heroin for general use and recommended that it be used in place of morphine.
1996	Purdue Pharma began manufacturing OxyContin in the United States; the American Pain Society launched the "Pain as the Fifth Vital Sign" campaign.
1998	Federation of State Medical Boards published "Model Guidelines for the Use of Controlled Substances for the treatment of Pain."
1999	Rise in prescription opioid overdose deaths begins.
2007	Purdue Pharma, the maker of OxyContin, pleaded guilty to criminal charges that they misled doctors, regulators, and patients about the drug's risk of addiction and potential to be abused, agreeing to a \$600,000,000 settlement.
2010	Rise in heroin overdose deaths begins.
2013	Rise in synthetic opioid overdose deaths begins.
2019	After continued involvement in lawsuits related to the opioid epidemic, Purdue Pharma filed for Chapter 11 bankruptcy.

In 1827, the pharmaceutical company Merck developed the drug morphine for pain relief and the treatment of opium addiction and alcoholism. While morphine was indeed an effective pain reliever, it was also highly addictive. Two years later, Merck introduced heroin, marketing it as a safe and nonaddictive alternative to morphine. In the early 1900s, the American Medical Association approved heroin for general use and recommended that it be used in place of morphine.¹

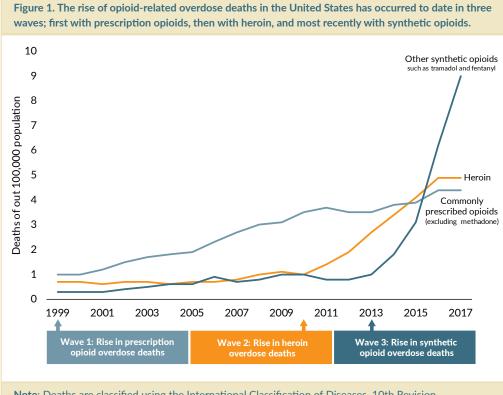
Skipping ahead to 1980, a letter to the editor published in the *New England Journal of Medicine* concluded that "despite widespread

use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction."² This statement was based on an analysis of data on patients who had been treated with opioids in a hospital setting. This letter has since been misrepresented as evidence that narcotics can be prescribed for home use without risk of addiction. The frequency with which this letter has been cited as support for the safe prescription of narcotics for use in a home setting began to increase in the late 1980s, with a particularly large spike in 1996, when Purdue Pharma began manufacturing OxyContin in the United States.³

Also in the mid-1990s, The American Pain Society began to promote the idea of evaluating pain as a vital sign, with the hope that this would lead to pain being appropriately evaluated and then managed.⁴ This was followed by the 1998 publication of "Model Guidelines for the Use of Controlled Substances for the Treatment of Pain" by the Federation of State Medical Boards.⁵ The idea of routinely assessing pain caught on rapidly, and became standard in hospitals and clinics across the country. With an increased awareness among clinicians about their patients' pain levels, the level of opioid prescribing rose, tripling over the period from 1999 to 2015. It has since decreased somewhat, although the United States still uses four times as many opioids as Europe.⁶

In early 2000, the negative effects of widespread opioid prescribing became more visible, including the tripling of the rate of opioid misuse among young adults between the ages of 18 and 25, and an increase in the ease of obtaining opioids, through internet sales.⁷ In 2007, Purdue Pharma, the maker of OxyContin, pleaded guilty to criminal charges that they misled doctors, regulators, and patients about the drug's risk of addiction and potential to be abused, agreeing to a \$600,000,000 settlement. The company has continued to be involved in lawsuits related to the opioid epidemic, and filed for Chapter 11 bankruptcy in September 2019.

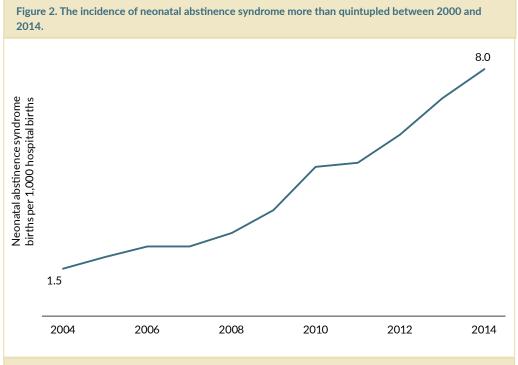
Trends in opioid-related overdose deaths over the past two decades are illustrated in Figure 1. The rise in overdose deaths from commonly prescribed opioids began in 1999, and has



Note: Deaths are classified using the International Classification of Diseases, 10th Revision. Source: Mortality data from National Center for Health Statistics, National Vital Statistics System. continued to rise fairly steadily since then. This was followed by a sharp rise in heroin overdose deaths beginning in 2010; the rate of heroin overdose deaths is now very similar to that of prescription opioids. Beginning in 2013, overdose deaths from other synthetic opioids such as illicitly produced fentanyl have risen precipitously, and now significantly outpace overdose deaths from the other two categories of opioids. As the opioid crisis has evolved, it becomes more complex, and some of the strategies needed to address it become more complex as well.

Neonatal abstinence syndrome

As a neonatologist, my view of the opioid crisis is through the lens of pregnant women and infants. Neonatal abstinence syndrome (NAS) is a withdrawal syndrome experienced by substance-exposed infants after birth. NAS generally follows an opioid exposure, although other drugs such as alcohol, benziodazepines such as Valium, and barbituates such as phenobarbital can also result in withdrawal syndromes. Around 40 to 80 percent of infants exposed to heroin or methadone develop NAS. My colleagues and I have documented the rise of NAS in the United States, as shown in Figure 2. From 2000 through 2014, the rate of NAS rose from just over one per 1,000 hospital births to over eight per 1,000 births.⁸ On average in the United States, a baby with NAS is born every 15 minutes.



Source: T. N. A. Winkelman, N. Villapiano, K. B. Kozhimannil, M. M. Davis, and S. W. Patrick, "Incidence and Costs of Neonatal Abstinence Syndrome Among Infants With Medicaid: 2004–2014," Pediatrics 141, No. 4 (2018): e20173520.

NAS is expensive to treat; hospital costs for an infant that has opioid withdrawal and is covered by Medicaid are about five times higher than for an infant without NAS.⁹ We estimate that NAS has resulted in approximately \$2 billion in excess hospital costs among Medicaid-financed deliveries over the 10-year period from 2004 to 2014.¹⁰

The goal of NAS treatment is to control withdrawal, minimizing the risk of complications such as seizures. As shown in the text box, models of care for achieving this goal are

Models of care are shifting toward keeping mother and baby together.

$\bullet \rightarrow \div$	
Traditional (and common)	Newer care models
Routinely separate mother & baby, place baby in neonatal intensive care unit	Keep mother & baby together and out of neonatal intensive care unit when possible
Breastfeeding not allowed, or inconsistent	Breastfeeding encouraged and supported
Focus on medications, instead of care process	Focus on care process, not just medications
Lack of trauma-informed processes	Engage staff in trauma-informed care
Provider burn-out common	Greater provider & patient satisfaction
Long lengths of treatment & stay	Reduced stay
Care not standardized	Use standardized protocols

shifting. The traditional and common model involves separating mother and infant, and placing the baby in a neonatal intensive care units (NICU). Mother and infant are treated separately, and breastfeeding is either not allowed or allowed inconsistently. The treatment involves using opioids such as morphine and methadone, which are tapered off over a period of time. This emphasis is on choosing the optimal medication for treatment rather than the optimal care process. Evidence shows a strong relationship between trauma, particularly adverse childhood experiences, and addiction.¹¹ The traditional approaches to the care of pregnant women and infants affected by the opioid crisis does not recognize the role of trauma; traditional care models also tend to separate mom and baby and are inconsistent in their approaches. As a result, families may feel unheard and separate from their infants' care, care is not standardized, and lengths of stay for infants can be very long, lasting two to three months.

In contrast, newer care models keep mothers and infants together, and out of the NICU whenever possible. Treatment includes the mother, and breastfeeding—which appears to decrease the severity of drug withdrawal, and improve outcomes for both mothers and infants—is encouraged and supported when indicated. These models focus on the process and not just the medication; engage staff in trauma-informed care; use standardized protocols; have much shorter lengths of stay; and provide greater levels of satisfaction among both providers and patients.

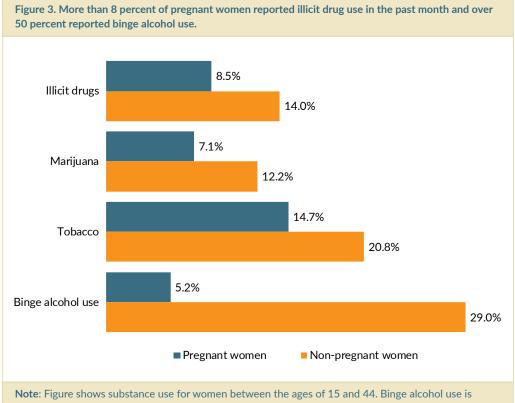
An example of this new approach to NAS is Team Hope, an interdisciplinary team from the Vanderbilt University Medical Center and the Monroe Carrell Jr. Children's Hospital formed in September 2017 that seeks to provide evidence-based care for opioid-exposed infants. The team includes physicians, nurses, social workers, child life specialists, lactation consultants, and care providers from the Departments of Pediatrics and Obstetrics and Gynecology. Over a two-year period, 231 near-term infants with opioid exposure were treated by the team. Only 24 percent were diagnosed with NAS, in part because of early deployment of resources to prevent the development of symptoms. Nineteen percent of infants were given morphine to treat severe withdrawal. The median length of hospital stay across all infants was five days, with a median stay of 13 days for those diagnosed with NAS—dramatically shorter than the months-long stays that can occur with traditional models. The team is now looking to improve the transition to home, by connecting families to services such as home nurse visitation and early intervention.

Putting the opioid crisis in context

Next, I want to step back slightly from the details of the opioid crisis and look at the bigger picture.

Opioids are not the only substance of concern

First, it is important to note that opioids are not the sole concern; it is also important to consider other substance use. For example, alcohol use during pregnancy is the number one preventable cause of developmental delay in children. Figure 3 shows the proportion of women between the ages of 15 and 44 who reported using substances in the previous month, according to the 2017 National Survey on Drug Use and Health. Use of illicit drugs was reported by 8.5 percent of pregnant women and 14 percent of nonpregnant women. The great majority of this drug use was marijuana rather than opioids or other drugs. Over 5 percent of pregnant women reported binge drinking—drinking five or more drinks on the same occasion. The rate of binge drinking and addressing other substance use among women of childbearing age is important to assuring healthy mothers and infants.



Note: Figure shows substance use for women between the ages of 15 and 44. Binge alcohol use is defined as drinking four or more drinks on the same occasion on at least one day over the past 30 days. Source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Statistics and Quality, 2017 National Survey on Drug Use and Health.

Accessing treatment is difficult

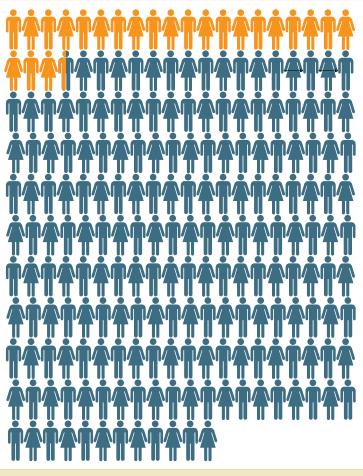
As Figure 4 shows, the great majority of people who need substance use treatment do not receive it. Accessing treatment is both difficult and expensive. For example, a "secret shopper" study—where people pretending to have a heroin dependency called providers trying to get treatment—found that about 60 percent of those who said they could pay cash

were offered an appointment; the rate was about 50 percent for those who said they were on Medicaid.¹² In rural settings, the rates were somewhat lower. Overall, median wait times for an initial appointment were five to six days, and the median cash cost of an appointment was \$250.

The literature is clear that the use of medications for opioid use disorder improves outcomes for mothers and children.13 Pregnant women who are treated with medications have decreased risk of overdose death or of contracting HIV or hepatitis C, the pregnancy is also more likely to go to term, and infants have higher birth weights. Despite this evidence, many pregnant women in the United States who could benefit from these medications do not receive them, in part because providers are less likely to treat pregnant women. For example, a study of treatment access for pregnant women in four Appalachian states found that only about half of providers who prescribe medications for opioid use disorder accepted pregnant patients.14

Community characteristics matter

Economic characteristics of communities are correlated with rates of opioid use. For example, my colleagues and I found that a 2 percentage-point increase in long-term unemployment in remote rural counties was associated with a 34 percent higher rate of NAS.¹⁵ A higher proportion of manufacturing jobs in these counties was also associated with higher NAS rates. This could be in part Figure 4. Of the 21.2 million Americans who needed substance use treatment in 2018, only 11 percent received it.



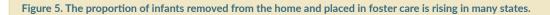
Note: Each figure represents 100,000 people needing treatment. Lighter color represents those receiving treatment.

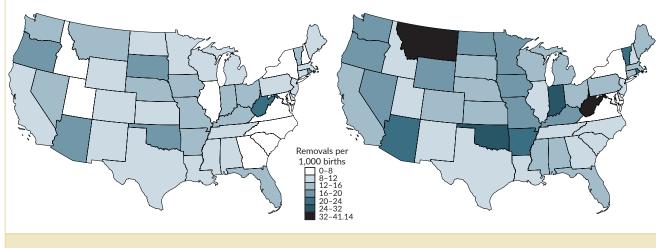
Source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Statistics and Quality, 2018 National Survey on Drug Use and Health.

the result of higher rates of injury, chronic pain, and disability experienced by many manufacturing workers, factors that may contribute to greater opioid use for pain relief. Our study also found that access to mental health providers was lacking in 91 percent of remote rural counties, 86 percent of metro-adjacent rural counties, and 78 percent of metropolitan counties. Counties with a shortage of mental health providers had higher rates of NAS.¹⁶

Individuals' exposure to trauma matters

Trauma is common in women with opioid use disorder. For example, a study of women in treatment for substance abuse found that three-quarters reported sexual abuse, three-quarters reported emotional abuse, and half reported physical abuse.¹⁷ Adverse childhood experiences are also common among people with substance use disorders.¹⁸ For example, adults with six or more adverse childhood experiences are eight times more likely to have lifetime substance dependence and 10 times more likely to have ever injected a drug, compared to those with no adverse childhood experiences.¹⁹





Source: Vanderbilt University Medical Center. Accessed on February 20, 2020: https://www.vumc.org/childhealthpolicy/childwelfare

Policy implications

There are a number of ways in which human services programs can partner with health systems in order to improve outcomes for families affected by opioid use disorder.

Pregnant women can be connected to treatment well before birth. Training and bonding can occur during the birth hospitalization. Recovery support can be provided to parents—both mothers and fathers. Other concerns such as mental health issues could be assessed during the hospital stay so that concurrent treatment could begin. Post-discharge needs such as more frequent pediatrician followup, Early Head Start, and programs for economic stability could be identified, and a follow-up plan put into place.

Finally, it is important to note that in many states, the proportion of infants removed from the home and placed in the foster care system is rising (Figure 5). Recent federal legislation specifies what is to happen in "Plans of Safe Care." I think that this model, which specifies coordinating care with multiple human services agencies (see text box) holds promise in bringing agencies together to improve family outcomes. While the scope of the current crisis is



unprecedented, I believe that it can be a vehicle to make improvements in the provision of human services that will be enduring for generations to come.

Stephen W. Patrick is Associate Professor of Pediatrics and Health Policy at Vanderbilt University.

¹The Journal of the American Medical Association, May 8, 1920, 1318.

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⁸T. N. A. Winkelman, N. Villapiano, K. B. Kozhimannil, M. M. Davis, and S. W. Patrick, "Incidence and Costs of Neonatal Abstinence Syndrome Among Infants With Medicaid: 2004–2014," *Pediatrics* 141, No. 4 (2018): e20173520.

9Winkelman et al, "Incidence and Costs of Neonatal Abstinence Syndrome."

¹⁰Winkelman et al., "Incidence and Costs of Neonatal Abstinence Syndrome."

¹¹See, for example, S. R. Dube, V. J. Felitti, M. Dong, D. P. Chapman, W. H. Giles, and R. F. Anda, "Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use: The Adverse Childhood Experiences Study," *Pediatrics* 111, No. 3 (2003): 564–572.

¹²T. Beetham, B. Saloner, S. E. Wakeman, M. Gaye, and M. L. Barnett, "Access to Office-Based Buprenorphine Treatment in Areas With High Rates of Opioid-Related Mortality: An Audit Study," *Annals of Internal Medicine* 171, No. 1 (2019): 1–9.

¹³See, for example, C. A. Fullerton et al., "Medication-Assisted Treatment with Methadone: Assessing the Evidence." *Psychiatric Services* 65, No. 2 (2014): 146–157.

¹⁴S. W. Patrick, M. B. Buntin, P. R. Martin, T. A. Scott, W. Dupont, M. Richards, and W. O. Cooper, "Barriers to Accessing Treatment for Pregnant Women with Opioid Use Disorder in Appalachian States," *Substance Abuse* 40, No. 3 (2019): 353–362.

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¹⁶Patrick et al., "Association Among County-Level Economic Factors, Clinician Supply, Metropolitan or Rural Location, and Neonatal Abstinence Syndrome."

¹⁷S. S. Covington, "Women and Addiction: A Trauma-Informed Approach," *Journal of Psychoactive Drugs* 40, Supplement 5 (2008): 377–385.

¹⁸J. Topitzes, D. J. Pate, N. D. Berman, and C. Medina-Kirchner, "Adverse Childhood Experiences, Health, and Employment: A Study of Men Seeking Job Services," *Child Abuse & Neglect* 61 (2016): 23–34.

¹⁹S. R. Dube, V. J. Felitti, M. Dong, D. P. Chapman, W. H. Giles, and R. F. Anda, "Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use: The Adverse Childhood Experiences Study," *Pediatrics* 111, No. 3 (2003): 564–72.

Men and opioid use disorder

The article by Stephen Patrick focuses on human services responses to the opioid crisis for pregnant women and their newborn children, the author's area of expertise. Here we note select research findings about how the opioid crisis affects men, especially vis-à-vis its effects on women (not just pregnant or postpartum women).

Men are more likely than women to misuse opioids. While men who misuse opioids are less likely than women with the disorder to overdose, the drug overdose death rate for men is nonetheless much higher than that for women due to their higher usage rates overall (Figure 1).

For men, opioid use appears to be related to employment more often than for women. An analysis by Alan Krueger found that the increase in opioid prescriptions between 1999 and 2015 could account for about 43 percent of the observed decline in men's labor force participation over the same period, compared to 25 percent of the observed

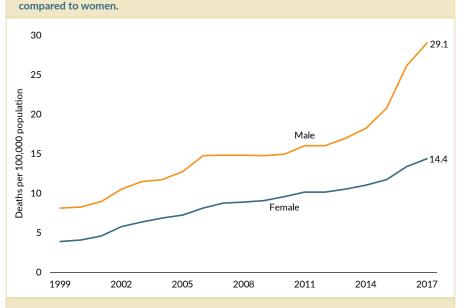


Figure 1. The drug overdose death rate in the United States is significantly higher for men

Source: Mortality data from the National Center for Health Statistics, National Vital Statistics System.

decline in women's labor force participation.¹ Krueger surmised that many of those who are out of work may find it difficult to return because of their reliance on pain medication.

Those who enter substance abuse treatment typically have multiple concurrent issues that require treatment providers to interact with other systems, such as housing and homelessness services and the criminal justice system. Many men receive substance abuse treatment while incarcerated, and the justice system is a large source of referrals to treatment for men. Homelessness has also been associated with substance abuse disorders, and men make up about four-fifths of homeless individuals who are in treatment for substance abuse. Many programs struggle to meet their needs.² Pressures to meet a societal ideal of masculinity—particularly being economically successful—may also make it more difficult for some men to seek help for substance misuse.³

Finally, the role of fathers as well as mothers must be considered in looking at the effects of opioids on families. For example, a study by the Urban Institute looks at the experiences of some home visiting programs in engaging low-income fathers.⁴ Successful strategies include learning fathers' work schedules, arranging visits during off hours, and having male home visitors.

¹A. B. Krueger, "Where Have All the Workers Gone? An Inquiry into the Decline of the U.S. Labor Force Participation Rate," The Brookings Institution, September 7, 2017. Available at: https://www.brookings.edu/bpea-articles/where-have-all-the-workers-gone-an-inquiry-into-the-decline-of-the-u-s-laborforce-participation-rate/

²Substance Abuse and Mental Health Services Administration (SAMHSA), "A Treatment Improvement Protocol: Addressing the Specific Behavioral Health Needs of Men," TIP 56, 2013. Available at: https://store.samhsa.gov/system/files/sma14-4736.pdf

³SAMHSA, "Addressing the Specific Behavioral Health Needs of Men."

⁴M. E. Gearing, H. E. Peters, H. Sandstrom, and C. Heller, "Engaging Low-Income Fathers in Home Visiting: Approaches, Challenges, and Strategies," OPRE Report #2015-104, Submitted by Urban Institute to the Office of Planning, Research and Evaluation, Administration for Children and Families, US Department of Health and Human Services. Available at: https://www.urban.org/sites/default/files/publication/76121/2000538-Engaging-Low-Income-Fathers-in-Home-Visiting-Approaches-Challenges-and-Strategies.pdf

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Child welfare

Ken DeCerchio gave the presentation summarized below.

TAKEAWAYS

Rates of drug overdose deaths and drugrelated hospitalizations are associated with higher child maltreatment reports and foster care placements.

Barriers to accessing substance use treatment within the child welfare system include a shortage of familycentered treatment options and a lack of understanding among caseworkers, court officials, and other providers about how medication assisted treatment works.

Coordinated service delivery between child welfare and substance use treatment providers would likely improve outcomes.



Interactions between human services programs and the opioid crisis

The September 2019 Annual Poverty Research and Policy Forum, "Human Services Programs and the Opioid Crisis," was convened by the Institute for Research on Poverty at the University of Wisconsin– Madison, in partnership with the Office of Human Services Policy, Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. The forum focused on how the opioid crisis has affected the delivery of human services, and what role those services can play in ameliorating the negative effects of opioid misuse on individuals, families, and communities. This article comprises four brief summaries of breakout sessions about how human services programs can address the effect of the opioid crisis on their objectives.

Forum participants met in one of four breakout sessions to discuss how human services programs can address the effects of the opioid crisis on their objectives. The four sessions covered:

- Child welfare;
- Self-sufficiency supports;
- Early childhood care; and
- Adolescents and young adults.

In each session, there was a presentation and group discussion. The following summaries present, for each session, a description of the issue; summary of the presentation; and research and policy implications.

Description of issue

In the United States, counties that have increases in overdose deaths and drug hospitalization rates tend to also have increases in rates of child maltreatment reports, rates of substantiated reports, and foster care placements.¹

Parents who misuse substances tend to experience multiple issues, including domestic violence, mental illness, and histories of trauma. Treating substance misuse without also addressing these other issues is unlikely to result in families staying together. Having services to support both the parent's recovery and the child's safety and wellbeing are associated with successful family reunification after an out-of-home placement.²

Conversely, for substance use disorder treatment to be successful, caseworkers must also address family issues and parenting; this type of treatment is often referred to as "family centered." Family-centered treatment services may include family therapy, parenting classes, childcare, and developmental services. A residential treatment program is considered family centered if children are permitted to reside with their parent while the parent receives treatment (for most programs that allow this, the option is available only for younger children). In general, child welfare agencies have little access to family-centered treatment services or programming, particularly for outpatient programming.³

Parents who misuse substances tend to experience multiple issues, including domestic violence, mental illness, and histories of trauma. Treating substance misuse without also addressing these other issues is unlikely to result in families staying together.

Medication assisted treatment or MAT, combining medication with counseling and behavioral therapies, has proven a particularly effective treatment for opioid use disorder.⁴ However, this type of treatment is not always understood or accepted by child welfare staff and judges, or even by some in the substance use disorder treatment field. This could lead to medications being tapered off prematurely or not being accompanied by necessary support services. Families may also receive mixed messages about appropriate treatments, which could make it more challenging to engage them in the recovery process.

Summary of presentation

The presentation highlighted opportunities to strengthen cross-system collaboration for infants and families affected by substance abuse, and examples of innovative policies and practices in states and communities.

There are several federal laws and policies that provide possible mechanisms to improve outcomes for families affected by opioid use disorder:

- The **Child Abuse Prevention and Treatment Act** (CAPTA) addresses child abuse and neglect. In 2016, CAPTA was amended by the Comprehensive Addiction and Recovery Act to clarify that the population covered by the legislation included infants affected by *all* substance use, not just illegal substance use, as had been previously required; specify which data states must report; require "Plans of Safe Care" to include the needs of both the infant and the family; and specify additional monitoring and oversight by states to ensure that Plans of Safe Care are implemented and that families have access to appropriate services.
 - **Plans of Safe Care** can be customized to meet the needs of different communities, settings and families. A plan could include, for example:
 - Primary, obstetric and gynecological care;
 - Substance use and mental health disorder prevention and treatment;
 - Parenting and family support;
 - Infant health and safety; and
 - Infant and child development.
- The **Family First Prevention Services Act of 2018** (FFPSA) allows foster care maintenance payments to continue for up to 12 months for an eligible child placed with a parent in a licensed residential family-based substance abuse treatment facility.⁵ Facility services must be trauma-informed and include parent skills training, parent

education, and individual and family counseling. The FFPSA also provides optional funding for one year of prevention services for mental health and substance abuse, and in-home skill-based programs for parents, families, and the children who are candidates for foster care.

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In 2018, CAPTA was amended again by **the Substance Use Disorder Prevention that Promotes Opioid Recovery and Treatment** (SUPPORT) for Patients and Communities Act to authorize grants to states to improve and coordinate their response to ensure the safety, permanency, and well-being of infants affected by parental substance use. The grants provide support to states to collaborate and improve Plans of Safe Care between child welfare agencies, social services agencies, substance use disorder treatment agencies, hospitals with labor and delivery units, medical staff, public health and mental health agencies, and maternal and child health agencies. Funds may also be used to develop and update monitoring systems to more effectively implement Plans of Safe Care.

There are also innovations in child welfare, substance use disorder treatment, and courts to strengthen collaboration and improve outcomes for children and families:

- **Sobriety Treatment and Recovery Teams** (START) provide child welfare intervention for families with children up to age 5 and child protective services involvement. The teams offer a family-centered approach that provides coordinated service delivery between child welfare agencies and substance use disorder and mental health treatment providers. The goal is to help parents achieve recovery, and to keep children in the home when that is safe and possible. One study found that participation in START was associated with a higher sobriety rate (66 percent for women in START compared to 37 percent for their non-START counterparts), and with a lower rate of removal to foster care for children in the program (21 percent compared to 42 percent).⁶
- **In-Depth Technical Assistance** (IDTA) for infants with prenatal substance exposure seeks to expand the capacity of states, tribes, and their community partner agencies to improve the safety, health, permanency, well-being, and recovery outcomes for families affected by substance use disorders. This 18- to 24-month program offered by the National Center on Substance Abuse and Child Welfare strengthens the collaboration among child welfare and substance use disorder treatment systems, the courts, maternal and infant health care providers, and other family-serving agencies.
 - The **National Quality Improvement Center for Collaborative Community Court Teams**, funded by the Children's Bureau, (QIC-CCCT) addresses the needs of infants and families affected by substance use disorders and prenatal substance exposure. The QIC-CCCT provides training and technical assistance to 15 demonstration sites to:
 - Implement the provisions of the Comprehensive Addiction and Recovery Act amendments to the Child Abuse and Prevention Treatment Act;
 - Expand court teams' capacity to address the needs of infants, young children, and their families affected by substance use disorders and prenatal substance exposure;
 - Sustain effective collaborative partnerships; and
 - Disseminate lessons to other providers.
 - The recent release of **Family Treatment Court Best Practice Standards** provides family treatment courts and their collaborative partners with action-oriented benchmarks for implementing best practices to improve outcomes for children,

parents, and families affected by substance use and co-occurring disorders who are involved in the child welfare system.

Research and policy implications

Increases in opioid misuse are associated with increased child welfare involvement. While evidence of this relationship is suggestive, it does not establish causality. It is possible that other factors-for example, a high rate of depression within a community-account for both higher substance use and child maltreatment. However, qualitative interviews and data on child removals related to parental alcohol or other drug use do support the close connection between substance use and child welfare involvement. Child welfare agencies are struggling to respond to the rising caseloads. While these agencies have addressed parental drug misuse in the past, the opioid crisis introduces new challenges. For example, because opioid misuse often affects multiple generations in a single family, family placement options are often limited for children involved in opioid-related child welfare cases. This has led to shortages of foster home openings in many areas. Opioid-related child welfare cases may also be particularly complex for several reasons. For example: opioid overdose is more common than overdose from other drugs, and more likely to result in death; lack of access to family-centered services can challenge parents' ability to succeed in recovery while safely caring for their children; and a lack of understanding among child welfare staff and judges about the established effectiveness of medication assisted treatment could undermine recovery.

Increased levels of substance abuse, including opioids, have affected many American families and the child welfare system. In response, federal law and policy updates are providing more flexible funding and new tools. In addition, child welfare staff and other service professionals are actively seeking better family-centered treatment options for parents.

Ken DeCerchio is Program Director at Children and Family Futures

¹R. Ghertner, M. Baldwin, G. Crouse, L. Radel, and A. Waters, "The Relationship between Substance Use Indicators and Child Welfare Caseloads," ASPE Research Brief, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, March 9, 2018.

²See, for example, B. A. Akin, J. Brook, M. H. Lloyd, and T. P McDonald, "Effect of a Parenting Intervention on Foster Care Reentry After Reunification Among Substance-Affected Families: A Quasi-Experimental Study," *Child Maltreatment* 22, No. 3 (2017): 194–204.

³L. Radel, M. Baldwin, G. Crouse, R. Ghertner, and A. Waters "Substance Use, the Opioid Epidemic, and the Child

Welfare System: Key Findings from a Mixed Methods Study," ASPE Research Brief, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, March 7, 2018.

⁴Medication-Assisted Treatment for Opioid Use Disorder: Proceedings of a Workshop-in Brief National Academies Press, 2018. https://www.ncbi.nlm.nih.gov/books/NBK534504/

⁵The Family First Prevention Services Act (FFPSA) reforms federal child welfare IV-E funding streams to allow states to provide families at risk of entering the child welfare system with up to 12 months of mental health services, substance abuse treatment, or in-home parenting training.

⁶R. A. Huebner, T. Willauer, and L. Posze, "The impact of Sobriety Treatment and Recovery Teams (START) on family outcomes," *Families in Society* 93, No. 3 (2012): 196–203.

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Self-sufficiency supports

Tim Robinson gave the presentation summarized below.

TAKEAWAYS

Many individuals with opioid use disorder experience concurrent issues that can impede recovery, such as poverty, homelessness, and low educational attainment.

Training those who have completed treatment to be peer support specialists could help address staffing shortages.

Even after successful medical treatment of their addiction, many people still need to learn (1) skills to maintain their recovery; (2) life skills; and (3) job skills.



Description of issue

Individuals with opioid and other substance use disorders often have concurrent issues such as poverty, bouts of homelessness, and low educational attainment. Many of them live in rural areas with limited employment and substance use disorder treatment options. These concurrent issues can create additional hurdles to achieving and maintaining recovery. Employment is a critical component of sustaining recovery. Staff who provide comprehensive services for individuals with a substance use disorder must work with local employers to identify jobs that provide a good fit for people in recovery so that they can succeed in the workplace. While there are some workforce development resources available through existing government programs, most do not offer services specifically tailored to those with a substance use disorder, and may even exclude those struggling with addiction from receiving services. Kentucky's Addiction Recovery Care program (ARC), described below, is notable for providing workforce development services specifically for individuals with a substance use disorder.

Summary of presentation

While Kentucky's rates of overdose death are among the highest in the nation, the state also leads in developing innovative strategies to address the opioid crisis. The state's ARC program provides a holistic approach to addiction recovery—incorporating clinical, spiritual, medical, and vocational elements—in the poorest and most isolated rural places. A "crisis-to-career" approach is central to the program's success. The four-phase program starts with intensive clinical and medical treatment (averaging 30 days); followed by sober living with a focus on recovery skills (averaging 45 days); vocational rehabilitation with a focus on life skills (60 days); and finally a job skills training program that lasts six to nine months. The crisis-to-career approach can be carried out in either a residential treatment setting or an outpatient treatment setting.

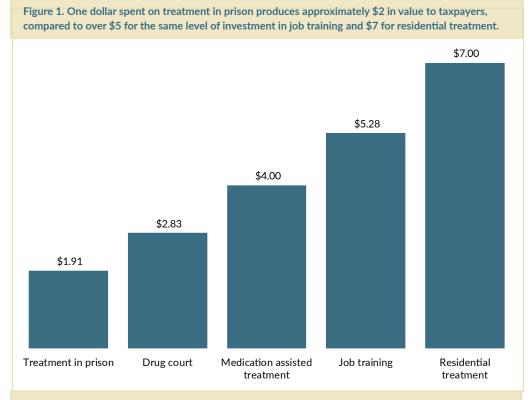
Employment is a critical component of sustaining recovery.

One of the challenges in operating programs is finding qualified staff; this can be particularly difficult in the poor and rural areas that are in the greatest need of services. ARC includes a staff training program that teaches program participants to be peer support specialists. Upon successful completion of the training program, program graduates are guaranteed a position at ARC or other locations including jails and homeless shelters. ARC currently has approximately 625 staff, of whom about half are in recovery and one-third are ARC graduates. Figure 1 shows the return on investment for different types of programs. One dollar spent on substance use disorder treatment in prison produces approximately \$2 in value to taxpayers, while the same level of investment in job training produces a \$5 return. Combining job training with either medication assisted treatment (\$4 return to \$1 spent) or residential treatment (\$7 return to \$1 spent) could provide even greater benefits.

Policy and research implications:

ARC is participating in the Building Evidence on Employment Strategies for Low-Income Families project (BEES) study. The BEES project is being evaluated by the Office of Planning, Research, and Evaluation in the U.S. Department of Health & Human Services. The BEES project, operating from 2017 through 2022, is building evidence about employment interventions that work for those in poverty; they will have a number of reports as results become available.

Workforce development services provided through existing government programs do not generally have strategies in place for addressing concurrent addiction issues. As a result, it may be necessary for caseworkers to coordinate funding from two or more sources to ensure that their clients with substance use disorders have a clear pathway to self-sufficiency.



Note: Figure shows the value to taxpayers resulting from a one-dollar investment.

Source: S. Aos, "The Comparative Costs and Benefits of Programs to Reduce Crime," Washington State Institute for Public Policy, May 2001; D. McCarty, "Substance Abuse Treatment Benefits and Costs," Robert Wood Johnson Foundation, May 1, 2007; H. J. Harwood, R. L. Hubbard, J. J. Collins, and J. Valley Rachal, "The Costs of Crime and the Benefits of Drug Abuse Treatment: A Cost-Benefit Analysis Using TOPS Data," in *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*, eds. C. G. Leaukefeld and F. M Tims, DHHS Publication No. (ADM) 88-1578 (Rockville, MD: National Institute of Drug Abuse, 1988). Existing employment programs for formerly incarcerated individuals could provide a model for assisting those in recovery with finding work. For example, RecycleForce provides recycling services in Indianapolis in support of workforce training, development, and job placement for formerly incarcerated men and women. A randomized controlled trial found that the RecycleForce Enhanced Transitional Jobs Program reduced participant recidivism by 6.2 percentage points compared to the control group.¹

Tim Robinson is CEO of Addiction Recovery Care in Kentucky.

¹K. Foley, M. Farrell, R. Webster, and J. Walter, *Reducing Recidivism and Increasing Opportunity: Benefits and Coats of the RecycleForce Enhanced Transitional Jobs Program, Research Brief*, MDRC, New York, June 2018.

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Early childhood care

Sangeeta Parikshak gave the presentation summarized below.

TAKEAWAYS

Early childhood care providers are on the front lines of the opioid crisis.

About half of Head Start programs reported they had strategies related to opioid misuse in place.

Promising strategies include: providing staff with awareness and sensitivity training; strengthening connections between early childhood care providers and hospitals, child welfare agencies, and treatment facilities; and providing referrals to mental health services.



Description of issue

Home visiting and center-based early childhood care and education programs provide services to at-risk expectant parents and families with young children. Programs provide information, support, and training about child health, development, and care. Increasingly, these early childhood care providers are seeing the effects of opioid use disorder and are thus in a good position to support such families. They can help by connecting families to services for substance misuse, including resources that might be able to reduce the risk that child welfare services will remove children from the home.

Home visitors can help mothers identify and address the concerns they have about bonding with babies born with neonatal abstinence syndrome. They can also guide mothers in caring for their babies' physical, cognitive, social, and emotional development. Care providers can help families engage in discussions of the issue, problem-solve, and plan for the future.

Parikshak's presentation focused primarily on the Head Start program, which includes both home visits and center-based care. The purpose of Head Start and Early Head Start is to promote the school readiness of low-income children by enhancing their cognitive, social, and emotional development. In addition to education services, Head Start programs provide health, nutrition, social-emotional, and family services.

Summary of presentation

Research suggests that disadvantaged populations are disproportionately affected by the opioid crisis.¹ Head Start staff who serve at-risk parents and their children are thus on the front lines of the opioid crisis. Specific challenges they encounter include:

- A shortage of bus drivers to provide transportation to childcare centers, because applicants cannot pass drug tests;
- Pregnant women in the program are misusing opioids and other substances, and home visitors lack training on how to discuss the risks for their unborn baby;
- Parents are reluctant to admit to substance use for fear of losing custody of their children;
- Staff lack training in how to respond when a parent who appears to be using substances comes to pick up their child; and
- Infants and children are entering care with neonatal abstinence syndrome, drug-related developmental delays, and trauma-related behavioral challenges, which require special training to deal with effectively.

A 2016 survey asked a sample of Head Start program managers about any strategies they had related to opioid misuse. The survey found that:

• Nearly half of responding Head Start managers had strategies related to opioid misuse;

- Of programs with strategies, nine out of 10 had strategies targeted to parents and other caregivers; about two-thirds had strategies that targeted staff; and just under half had strategies that targeted children;
- Strategies included:
 - Awareness and sensitivity training;
 - Closer partnerships with hospitals, child welfare, and local treatment facilities to provide coordinated care;
 - Interventions within the program to improve the parent-child bond;
 - Monthly support groups for grandparents;
 - Needle-exchange program to reduce hepatitis C;
 - Training staff to carry and administer Naloxone to counter the effects of opioid overdose; and
 - Mental health consultant support and referral.

The Head Start Early Childhood Learning and Knowledge Center provides additional resources on substance misuse for early childhood program staff.²

Research and policy implications

While early childhood care programs such as Head Start are well-positioned to mitigate the effects of opioid use disorder on families with young children, there are often insufficient resources to provide such services. Strategies such as coordinating funding from two or more sources to support the total cost of services can boost available resources. For example, in Pennsylvania, federal Head Start, Early Head Start, and state Pre-K funds are combined with childcare assistance funds to provide full-day, year-round services to low-income infants, toddlers, and preschoolers. Programs used these funds to hire community coordinators to work with home visiting programs and provide targeted training on how to discuss substance use with families, for example. Some programs piloted a seven-week program, "Families in Recovery," which aims to strengthen parenting skills for those recovering from substance use disorder.

For children with neonatal abstinence syndrome, strong connections between hospitals and early intervention services like Early Head Start are important. Cross-referrals between home visiting programs and Head Start programs can also help children and families get the services they need.

The need for early childhood programs to have a strong focus on mental health and substance use cannot be underscored enough. Programs are often not equipped to provide training on substance use disorders for their early childhood workers.

Sangeeta Parikshak is Social Science Analyst at the Office of Early Childhood Development in the Administration for Children and Families, U.S. Department of Health and Human Services.

¹UW–Madison Institute for Research on Poverty, "The Opioid Epidemic and Socioeconomic Disadvantage," *Fast Focus* 32-2018, March 2018. Available at: https://www.irp.wisc.edu/resource/the-opioid-epidemic-and-socioeconomic-disadvantage/

²The Head Start Early Childhood Learning and Knowledge Center is available at: https://eclkc.ohs.acf.hhs.gov/

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Adolescents and young adults

Sarah Bagley gave the presentation summarized below.

TAKEAWAYS

The rate of youth opioid use is relatively low and has been decreasing in recent years.

The rate of youth opioid-related deaths is increasing, particularly those due to synthetic narcotics like fentanyl.

While the need for services targeted to adolescents is rising, the availability of those services is limited.

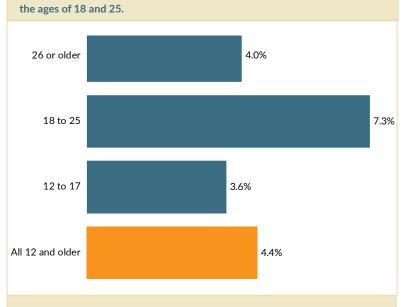
Strategies to address opioid misuse among adolescents and young adults need to include early intervention, treatment of co-occurring disorders such as anxiety and depression, and support for those in recovery.



Description of issue

School-age children deal with the same issues related to opioid misuse as younger children, including the continuing effects of neonatal abstinence disorder and the effects of opioid use disorder on their parents and other family members. As children mature, their risk for opioid misuse also grows. A 2016 survey found that 3.6 percent of adolescents between the ages of 12 and 17 reported misusing opioids over the past year (Figure 1). The rate doubled for older adolescents and young adults between the ages of 18 and 25, then declined again after age 25.¹ Nearly all of this reported misuse is of prescription opioids rather than illegal opioids. The rate of substance misuse among youth does appear to be on the decline; for example, among high school seniors, past-year misuse of pain medication other than heroin decreased from a peak of 9.5 percent in 2004 to 3.4 percent in 2018.²

Figure 1. Past year opioid misuse is highest among those who are between



Note: Figure shows 2016 estimates of opioid misuse, defined as heroin use or the misuse of prescription pain reliever.

Source: Key Substance Use and Mental Health Indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. Available at: https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/ NSDUH-FFR1-2016.htm#fig28

While the rate of youth opioid use is relatively low and dropping, the rate of overdose deaths for this population is increasing, as is the proportion of opioid overdose deaths.

Not all adolescents are at equal risk; those who have witnessed the overdose of a family member or who have peers who misuse prescription drugs are more likely to misuse opioids. Other risk factors include chronic pain or other physical health problems; a history of mental illness, such as depression; or other substance use. While some adolescents are misusing drugs prescribed to them, nearly half of adolescents between the ages of 12 and 17 who reported misusing pain relievers said they came from a friend or relative.³

Summary of presentation

Youth—adolescents and young adults—are often left out of the discussion about opioid misuse. While there has been much recent attention on pregnant women, infants, and young children, there has been much less research and policy focus on those between the ages of 12 and 25.

As noted, youth opioid use is fairly low and decreasing, but the story gets more complicated when we look at youth overdose deaths. The opioid-related overdose rate among 15- to 24-year-olds has more than quintupled over the past two decades. Much of this increase is attributable to Fentanyl and other synthetic narcotics.⁴

While the need for services targeted to adolescents is rising, the availability of those services is limited; fewer that one in three of current U.S. specialty drug treatment programs offer care to adolescents.⁵ As with older adults, medication assisted treatment has been shown to be effective, and to have higher treatment retention rates than behavioral health services alone.⁶ However, between 2000 and 2014, only a quarter of youth diagnosed with opioid use disorder received medication assisted treatment (buprenorphine or naltrexone) within six months of their diagnosis.⁷

Early intervention creates opportunities to lower opioid misuse; the risk of developing a substance use disorder rises as the age at which substance use begins falls. For example, children who begin to drink alcohol before age 15 are about five times more likely to develop an alcohol use disorder compared to those who begin to drink after the age of 19.⁸ Brief, early interventions provided in the context of routine medical visits have been shown to be effective.⁹

The opioid-related overdose rate among 15- to 24-yearolds has more than quintupled over the past two decades. Much of this increase is attributable to Fentanyl and other synthetic narcotics.

Research and policy implications

Across the country, there are several examples of promising programs for youth, both to prevent substance misuse and to support those in recovery. For example:

- **Recovery high schools**, schools that are specifically designed for students recovering from substance use, are currently located in 14 states. Adolescents attending these schools were significantly more likely to report complete abstinence from substances six months after initial treatment than were their peers not attending such schools;¹⁰
- **Collegiate recovery programs**, available in most states, provide recovery support while students pursue a postsecondary degree;
- The **Strengthening Families Program**, available in all 50 states and in 36 countries, provides seven- to 14-week long skills courses to youths up to age 17 and their parents. The program is designed to encourage happier family relationships, improve mental health outcomes, and decrease youth alcohol and drug use. Twelve

randomized control trials have found positive results of the program among both youth and their parents. Youth assigned to the program had improved school performance, less depression and anxiety, and dramatically lower tobacco, alcohol, and drug use compared to those assigned to a control group.¹¹ Parents reported positive effects on their parenting skills, family life, and relationship with their child; and

• **LifeSkills Training**, a curriculum available for elementary, middle, and high school students, combines training in self-management skills, social skills, and substance-use resistance skills. A prescription drug abuse prevention module is available. Researchers found that participating in LifeSkills Training in grade seven reduced by 4.4 percent a child's likelihood of initiating prescription opioid misuse prior to 12th grade. A combination of this training and the Strengthening Families program was shown to be particularly effective.¹²

Other programs currently operating in only one state or that are being piloted in a small number of locations include:

- **The Phoenix**, a sober, active community providing fitness programs in several states taught by instructors who are themselves in recovery. The "membership fee" is 48 hours of sobriety;
- **Bridge over Troubled Waters in Massachusetts**, offering street outreach, emergency shelter, and independent housing for young adults;
- **Familias Unidas** in Florida, providing substance use and sexual risk behavior prevention intervention for Hispanic youth and their families;
- **Youth Clubhouses** in New York, community-based centers offering peerdriven support services in a nonclinical setting;
- **Speak Now**, a Colorado social marketing campaign intended to encourage conversations between parents and teens around substance use and abuse;
- **CATALYST Clinic** at Boston Medical Center, offering integrated, comprehensive medical, behavioral health, and recovery support care to adolescents and young adults;
- **Start Talking**, a K-12 curriculum in Ohio providing tools to start conversation between parents, educators, community leaders, and youths about healthful lifestyles;
- **Michigan Youth Treatment Infrastructure Enhancement**, an initiative intended to help providers offer an effective continuum of care to youths between the ages of 16 and 21 and their guardians;
- **Teens Linked to Care**, a pilot program operating in three rural communities in Indiana, Kentucky, and Ohio to help schools address high-risk substance use and other health concerns through education, primary prevention, and early detection screening; and
- **Opioid Affected Youth Initiative** in Miami-Dade County, Florida, a U.S. Department of Justice initiative to develop data-driven, coordinated responses to address opioid use among those under the age of 25.

As with adults, treating co-occurring disorders among youths is important. Adolescents and young adults may be self-medicating for preexisting anxiety and depression. While medication can work well for opiate use disorder, it does not always work well for other substance use disorders, and does nothing for underlying mental health issues. It is not reasonable to expect patients and their families to access treatment for multiple issues separately; coordination is key. This may involve sharing data across agencies and programs, which is not always easy to do.

Sarah Bagley is a primary care physician at the Boston Medical Center and Assistant Professor of Medicine and Pediatrics at Boston University School of Medicine.

¹Substance Abuse and Mental Health Services Administration, *Key Substance Use and Mental Health Indicators in the United States: Results From the 2016 National Survey on Drug Use and Health*, HHS Publication No. SMA 17-5044, NSDUH Series H-52, Center for Behavioral Health Statistics and Quality. Available at: https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf

²L. D. Johnston, R. A. Miech, P. M. O'Malley, J. G. Bachman, J. E. Schulenberg, and M. E. Patrick, *Monitoring the Future National Survey Results on Drug Use*, 1975–2018: 2018 Overview, Key Findings on Adolescent Drug Use, Institute for Social Research, The University of Michigan: Ann Arbor, MI, 2017.

³Substance Abuse and Mental health Services Administration, *Results from the 2015 National Survey on Drug Use and Health: Detailed Tables*, Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration: Rockville, Maryland, September 8, 2016. Available at: https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf

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