



# **The Opioid Crisis: Federal Policy Approaches to Reduce Supply, Demand, and Harm**

**Reduce the supply of illicit opioids**

**Increase treatment for individuals in the criminal justice system**

**Expand the use of telehealth for treatment**

**Expand Medicaid coverage of treatment**

**Enhance monitoring programs for drug prescribing**

**Increase access to overdose reversal medications**

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# At a Glance

The opioid crisis has significantly affected public health, the economy, and communities in the United States. Drug overdoses and deaths rose sharply during the COVID-19 pandemic because of increases in deaths involving fentanyl (a powerful synthetic opioid) and the concurrent use of multiple substances. Although annual opioid-involved overdose deaths started to decline in 2023, they remain historically high. In this report, the Congressional Budget Office describes three types of policy approaches to address the ongoing opioid crisis and assesses their effectiveness and likely budgetary effects.

- **Reducing the Supply of Illegally Produced Opioids.** Limiting the availability of illegally produced opioids by disrupting the illegal drug supply chain has been shown to reduce hospital admissions and overall mortality, although the effects are mostly temporary. Those findings are based on past interdiction efforts; they may not fully apply to the current opioid crisis, which is fueled by synthetic drugs, because of differences in production and distribution.
- **Reducing the Demand for Opioids.** Treating and preventing opioid use disorder (OUD, the compulsive use of opioids despite harmful consequences) is key to reducing the demand for opioids. By enhancing the effectiveness of state prescription drug monitoring programs, the federal government can reduce the use of prescription opioids and the amount of opioids dispensed to new users, which can help prevent new cases of OUD. In addition, policy approaches that increase access to OUD treatment—by, for example, expanding the scope of Medicaid coverage, expanding access to telehealth services, and supporting treatment for individuals involved in the criminal justice system—have been shown to increase treatment and to reduce opioid use and overdose rates.
- **Reducing the Harm From Opioid Use Disorder.** Harm reduction aims to minimize the negative health, social, and legal impacts associated with drug use for people who use opioids and for their communities. Expanding access to overdose reversal medications has been shown to reduce opioid-involved overdose deaths, and availability of those medications does not increase opioid use.

Implementing any of those policy approaches would alter federal spending and, in some cases, revenues. For example, policies affecting coverage or spending among Medicaid and Medicare enrollees would affect federal outlays for those programs. Policies affecting spending among people enrolled in employment-based or nongroup (individual) coverage obtained through the health insurance marketplaces established under the Affordable Care Act would affect both outlays and revenues. Providing appropriations for grants or other programs would add to federal spending.

To the extent that some policies improved health outcomes, spending on federally subsidized health insurance programs would fall because of reduced health care costs from averted medical needs. Increased longevity resulting from fewer opioid-involved overdose deaths would increase revenues through the collection of additional payroll and income taxes and would increase federal spending on Medicare, Social Security, and other federal programs because more people would collect benefits.

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# Notes About This Report

The information in this report is current as of May 2025 unless otherwise specified. All years referred to in describing the Congressional Budget Office's cost estimates and federal legislation are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. All other years are calendar years.

In this report, prescription drug monitoring programs are classified as a policy approach to reduce the demand for opioids. In a September 2022 report, *The Opioid Crisis and Recent Federal Policy Responses* ([www.cbo.gov/publication/58221](http://www.cbo.gov/publication/58221)), CBO classified those programs as a policy approach to reduce the supply of opioids.

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# The Opioid Crisis: Federal Policy Approaches to Reduce Supply, Demand, and Harm

## Summary

The opioid crisis has had devastating effects in the United States. To respond to the crisis and alleviate its effects on people, communities, and the economy, policymakers have enacted laws to limit the supply of opioids, lower the demand for opioids, and reduce the harm from opioid use. Despite those measures, drug overdoses and deaths have not only persisted but increased. During the COVID-19 pandemic, the number of opioid-involved deaths rose sharply because of increases in deaths involving the powerful synthetic opioid fentanyl and because of the concurrent use of multiple substances. More recently, from 2023 to 2024, drug overdose deaths declined by 27 percent to about 80,000, their level at the beginning of the pandemic.<sup>1</sup>

In this report, the Congressional Budget Office describes and assesses the effects of policy approaches that lawmakers could employ to address the ongoing opioid crisis. The agency chose approaches that have considerable Congressional interest, as reflected in legislative actions and proposals, and that are supported by substantial evidence about whether and how they would affect outcomes of interest, such as utilization of and retention in treatment, the number of overdoses, and rates of opioid-related mortality. Policy approaches that meet only one of the two criteria, or that do not meet either but have attracted significant attention from academics and policymakers, are briefly discussed at the end of each section.

## Policy Approaches to Address the Opioid Crisis

To determine which policy approaches to evaluate, CBO reviewed the academic and policy literature and searched for related legislation. Among the policy approaches that CBO found, the agency chose six that had a lot of interest from Congress and substantial evidence about their effects on relevant outcomes. (An additional five approaches—each of which has received some interest

from Congress, has less empirical evidence, or has attracted significant attention from academics and policymakers—are evaluated later in this report.) For more details about CBO’s process for selecting policy approaches, see “Details About the Policy Approaches That CBO Examined” on page 8.

The six main approaches that CBO examined seek to address three dimensions of the opioid crisis: supply, demand, and harm. The first approach would reduce the supply of illicit opioids, and the last approach would mitigate the harms associated with opioid use. The other four approaches would lower the demand for opioids by preventing and treating the compulsive use of opioids despite harmful consequences, known as opioid use disorder (OUD), which leads to physical dependence, tolerance, cravings, and difficulty controlling use.

To assess the effectiveness of the policy approaches, CBO examined recent studies that looked at a wide range of outcomes (see Table S-1). On the basis of that literature review, CBO found the following:

- Policies to limit the supply of opioids tended to reduce opioid misuse, hospital admissions, crime rates, and mortality rates (both opioid-related and overall), but such effects were temporary in some cases or offset by substitution of other opioids not targeted by the policy; and
- Policies aimed at reducing the demand for opioids increased treatment rates, and both demand- and harm-reduction approaches generally reduced opioid-involved mortality.<sup>2</sup>

CBO evaluated the policy approaches qualitatively; comparisons of the size of their effects are beyond the scope of this report.

Table S-1.

## The Effectiveness of Policy Approaches to Address the Opioid Crisis

Policy approach	Policy effectiveness
Reduce supply of opioids	
Interdict the supply of illicit opioids	Somewhat consistent evidence on reducing hospital and treatment admissions, crime rates, and mortality, though effects were temporary in some cases.
Reduce demand for opioids	
Expand the scope of Medicaid coverage for OUD treatment	Consistent evidence on increasing OUD treatment use, MOUD use, treatment admissions, treatment retention and on decreasing ED visits, but mixed results on mortality.
Expand access to telehealth for OUD treatment	Consistent evidence on decreasing opioid overdose rates and increasing treatment use, MOUD use, and retention.
Support treatment for individuals with OUD who are involved in the criminal justice system	Consistent evidence on increasing treatment use and retention and on decreasing opioid and other drug use, crime and recidivism rates, and mortality rates.
Fund the enhancement of PDMPs	Consistent evidence on reducing opioid prescriptions, opioid misuse, the amount of opioids dispensed to new users, treatment and hospital admissions, opioid-related ED visits, and opioid-related mortality rates. However, reductions in access to prescription opioids could shift some opioid use to illegal and riskier opioids, leading to increases in heroin use, related crime, and heroin-related death rates.
Reduce the harm from the use of opioids	
Increase access to opioid overdose reversal drugs	Consistent evidence on reducing opioid overdose deaths, but mixed results on ED visits.

Data source: Congressional Budget Office.

ED = emergency department; MOUD = medications for opioid use disorder; OUD = opioid use disorder; PDMPs = prescription drug monitoring programs.

**Reducing Supply.** CBO examined one policy approach that would reduce the supply of illegally produced opioids by intercepting and preventing the movement of illicit fentanyl (which is manufactured illegally and sold without a prescription) through additional information sharing and counterdrug efforts.

Supply reduction has a federal component and a state and local component. Federal supply interdiction policies—efforts by law enforcement to interrupt the supply chain of illegal drugs—could strengthen the monitoring of mail deliveries or expand the capacity of state and local law enforcement agencies to collect and share data. State and local activities could include alternative methods of surveillance, data collection, and drug identification. Such activities could improve the quality and timeliness of information used by law enforcement agencies.

Evidence suggests that such interdiction efforts by law enforcement agencies improve people's health outcomes

and reduce crime rates, although two studies found that the impact was temporary in the case of supply interdiction of methamphetamine in the United States. Given the widespread production and distribution of illicit fentanyl, policies that target the supply of opioids may be less effective now than in the past, when distributional channels were fewer.

**Reducing Demand.** CBO examined four policy approaches that would reduce the demand for opioids through treatment and prevention. Three of the policies would focus on treating people who have OUD, and the fourth would limit the inappropriate use of prescription opioids. In particular, the policies would reduce the demand for opioids by:

- Expanding the scope of Medicaid coverage for OUD treatment,
- Expanding access to telehealth services for OUD treatment,

- Increasing access to treatment for people with OUD in the criminal justice system, and
- Enhancing the effectiveness of prescription drug monitoring programs (PDMPs), which are state databases of prescriptions written for controlled substances.

Medicaid is the single largest payer for behavioral health services. In addition, compared with Medicare enrollees and individuals enrolled in private health insurance plans, a larger share of Medicaid enrollees have substance use disorder (SUD, which is the persistent use of drugs despite substantial harm and adverse consequences to self and others). In states that have expanded Medicaid coverage under the Affordable Care Act (ACA), most incarcerated adults are eligible for Medicaid upon release. Medicaid coverage of OUD treatments (including medication for OUD, or MOUD) tends to result in greater use of treatments and continued engagement in treatment. That coverage could be required or incentivized to expand its reach.

Another way to lower barriers to treatment would be by ensuring coverage for telehealth-based OUD services among payers, including Medicare and Medicaid, and improving telehealth technology. The expansion of telehealth services during the pandemic was associated with increases in treatment for OUD, longer retention in treatment, and lower odds of overdosing on opioids. (An association between two variables means that they tend to move together, whether in the same direction or in opposite directions. That association shows a relationship between the two variables but does not necessarily imply that one causes the other.)

Two tactics could be used to expand OUD treatment in criminal justice settings. Judges and police departments could offer treatment as an alternative to incarceration, and more prisons and jails could provide OUD treatment to their inmates. Both tactics are associated with lower recidivism and higher rates of treatment.

The inappropriate use of prescription opioids could be limited through PDMPs. Those types of programs are available in all states and the District of Columbia in 2025. The federal government could increase the programs' effectiveness by strengthening state policies that mandate or facilitate the use of PDMPs. Those policies tend to reduce the use of prescription opioids, including the amount prescribed to new users, as well as opioid-related hospital visits and deaths. Although PDMPs also lower the amount prescribed to existing

users, this report focuses on their role in preventing new cases of OUD because most overdose deaths now stem from nonprescription sources of opioids.

**Reducing Harm.** CBO examined one policy approach that would reduce the adverse health, social, and legal consequences of drug use by increasing access to opioid overdose reversal medications. The most widely used such medication is naloxone, an opioid antagonist that binds to opioid receptors in the brain and blocks the effects of opioids, such as heroin, fentanyl, oxycodone, and morphine. Medicaid and Medicare typically cover at least one form of naloxone.

That approach could be implemented in several ways. Opioid overdose reversal medications could be distributed more widely, pharmacists could be allowed to prescribe those medications to broader groups of people, or the medications could be coprescribed.<sup>3</sup> Evidence suggests that increasing access to opioid overdose reversal medications reduces overdose deaths without increasing opioid use.

### **Budgetary Effects of the Policy Approaches**

The policy approaches examined in this report would alter federal outlays and, in some cases, revenues. CBO assessed four key types of budgetary effects.

- *Initial effects* of the policies on spending for OUD treatment and overdose reversal medications. Such effects would depend mainly on the cost of those services and on changes in their use paid for by federally subsidized health insurance programs. Initial effects also would include funding provided for grant programs related to opioids.<sup>4</sup>
- *Subsequent effects* on health care spending as a result of the policies, which would typically result in averted health care spending because of, for example, fewer emergency department visits for opioid overdoses. In a few cases, policies could have negligible effects on spending or could increase spending through offsetting costs. A share of the changes in health care spending would accrue to the federal government.
- *Population-change effects* from reductions in opioid-involved mortality. Such effects would increase income and payroll tax revenues as more people remained in the workforce and would also raise outlays for federal programs, including Medicaid, the Supplemental Nutrition Assistance Program (SNAP), Medicare, and Social Security retirement and disability benefits, as more people received those benefits or collected them for longer.

- *Dynamic effects*, which include initial effects, subsequent effects on health care spending, population-change effects, and all other effects on spending and revenues stemming from changes in the size of the economy. Dynamic effects would encompass the broader economic impact of policies, including more labor force participation, increased wages, and greater investment.

Those effects are broader than what CBO usually includes in its cost estimates. Initial effects and subsequent effects on health care spending would typically be included in conventional cost estimates. Those estimates generally reflect the expectation that the size of the economy remains unchanged under a legislative proposal. When practicable, CBO derives budgetary estimates of population-change effects primarily from the effects on labor income and on eligibility for benefits. CBO would conduct dynamic analysis (which examines the effects on the total output of the economy) if the legislation was projected to have a major effect on gross domestic product (GDP) or if the analysis was requested and practicable. Cost estimates generally focus on a 10-year projection period, but CBO sometimes provides information on longer-term effects.

## The Opioid Crisis in the United States

Opioids are a class of drugs that interact with opioid receptors in the brain and body to relieve pain, slow certain bodily functions (such as breathing), and, in some cases, produce a sense of euphoria. Synthetic opioids, such as fentanyl, are produced and used both legally (when prescribed to treat severe pain) and illegally. Heroin, a highly addictive opioid, is illicitly produced and has no accepted medical use in the United States. Opioid use and misuse (the use of a prescription drug without a prescription or in a different way than prescribed) can lead to dependence, addiction, overdose, and death.

From 2015 to 2024, annual drug overdose deaths involving any opioid increased by 65 percent (from 33,100 to 54,700) in the United States, contributing to an accumulated total of more than 850,000 opioid-involved deaths since 2000.<sup>5</sup> Beginning in 2023, annual opioid-involved overdose deaths declined; from 2023 to 2024, they dropped by about 30 percent. Use of synthetic opioids with and without other types of drugs (including alcohol) has contributed to the current crisis, which has become particularly severe among Black

people, Native Americans, and men ages 25 to 64. An estimated 7 million to 8 million people in the United States were living with opioid use disorder in 2019.<sup>6</sup>

The opioid crisis has profoundly affected health, economic factors, and social outcomes. The health consequences of chronic opioid use can be severe. That use is associated with cognitive impairments and, over time, injecting opioids can cause organ damage and infection with hepatitis B and C, HIV, and other blood-borne viruses.<sup>7</sup> The economic and social effects of the crisis are widespread. Opioid-involved deaths have contributed to the decline in U.S. life expectancy that began in 2015.<sup>8</sup> In addition, the opioid crisis has negatively affected family structure, children's well-being, and labor force participation.<sup>9</sup>

To address the many facets of the crisis, lawmakers have enacted several laws spanning supply, demand, and harm reduction. Most provisions of laws enacted from 2016 to 2018 that authorized funding for opioid and drug-related interventions have expired or will expire in the next few years. More recently enacted opioid-related laws focus on enforcement to reduce the supply of illicit opioids. In addition to federal funding, a \$26 billion settlement was finalized in 2022 between the attorneys general of nearly all states and pharmaceutical opioid distributors and one manufacturer to resolve legal claims against those companies for their roles in perpetuating the opioid crisis.<sup>10</sup> State and local governments have started to receive funds from the settlement. Those funds are intended to support efforts to mitigate the adverse effects of the opioid crisis.<sup>11</sup>

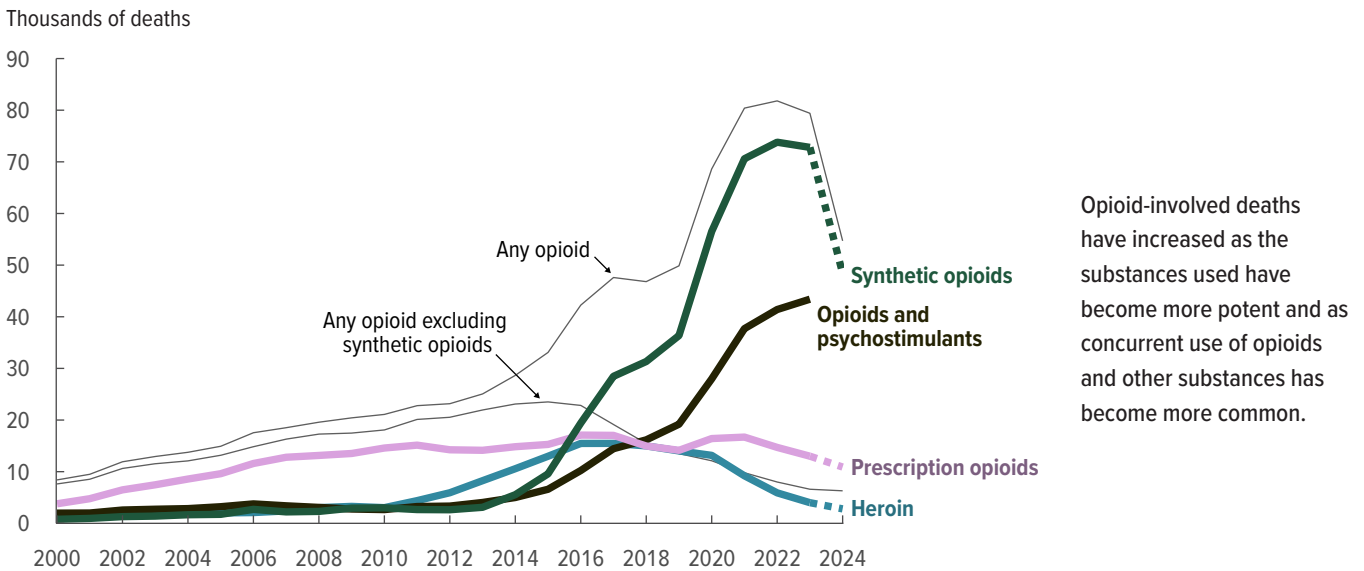
## Trends in Overdose Deaths Involving Opioids

Recent increases in overdose deaths have been driven by deaths involving synthetic opioids, largely fentanyl (see Figure 1). Over the past 10 years, overdose deaths involving synthetic opioids increased by 780 percent and, as of 2024, deaths involving synthetic opioids accounted for 89 percent of all opioid-related overdose deaths.<sup>12</sup> In 2023, annual deaths involving synthetic opioids decreased for the first time since 2018, declining by 1.5 percent from 2022. The most recent provisional data about drug overdose deaths show that from 2023 to 2024, deaths involving synthetic opioids declined by 37 percent.<sup>13</sup>

Synthetic opioids have been driving the recent surge in overdose deaths mainly because of their potency,

Figure 1.

### Overdose Deaths Involving Opioids, by Type of Opioid



Opioid-involved deaths have increased as the substances used have become more potent and as concurrent use of opioids and other substances has become more common.

Data source: Congressional Budget Office, using information from the CDC WONDER database, Centers for Disease Control and Prevention, National Center for Health Statistics, “About Multiple Cause of Death, 1999-2020,” <https://wonder.cdc.gov/mcd-icd10.html>; and “About Multiple Cause of Death, 2018-2023, Single Race,” <https://wonder.cdc.gov/mcd-icd10-expanded.html> (all accessed May 20, 2025). See [www.cbo.gov/publication/60889#data](http://www.cbo.gov/publication/60889#data).

Dashed lines are 2024 values from National Center for Health Statistics, “12 Month-ending Provisional Number of Drug Overdose Deaths by Drug or Drug Class,” [www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm](http://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm).

Psychostimulants include cocaine and psychostimulants with abuse potential, such as methamphetamine, 3,4-methylenedioxy-methamphetamine (MDMA), dextroamphetamine, levoamphetamine, methylphenidate (Ritalin), and caffeine. Synthetic opioids include fentanyl and related substances. Because the subcategories of prescription opioids, heroin, and synthetic opioids (other than methadone) are not mutually exclusive, total deaths from any opioid can be fewer than the sum of the deaths from the subcategories of opioids. In addition, the category “any opioid” includes other subcategories of opioids—opium and other unspecified narcotics—not shown separately in the figure.

unintentional consumption, and increased availability. Fentanyl is commonly mixed with other illicit drugs, and many people may be unaware that their drugs contain fentanyl.<sup>14</sup> The use of synthetic opioids has also increased as their prices have fallen and as prescription opioids have become harder to obtain legally. The prices of fentanyl and related substances are low because fentanyl can be produced in a laboratory at low cost and because sales are facilitated by the internet; at the same time, federal and state interventions have reduced the availability of prescription opioids.<sup>15</sup> The pandemic further exacerbated the opioid crisis by disconnecting people with OUD from traditional treatments and by increasing the demand for opioids.

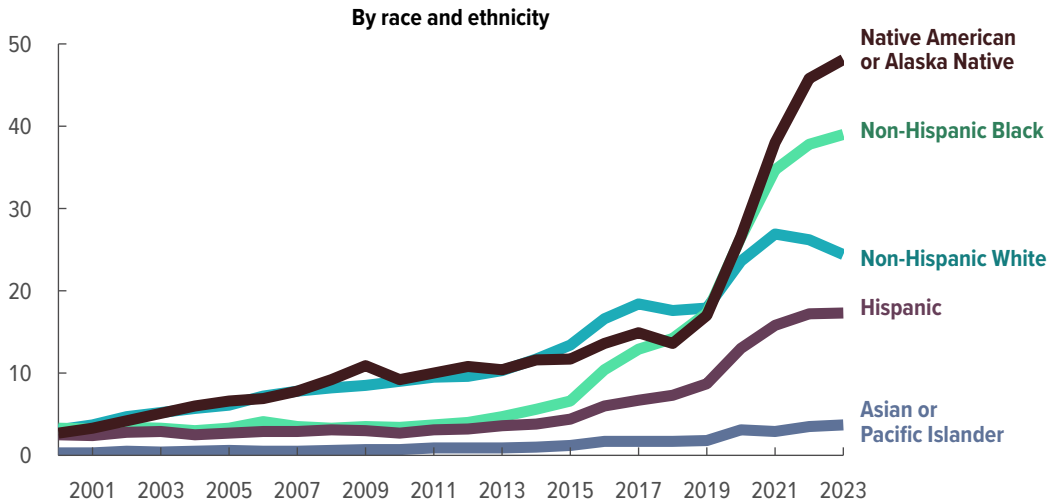
Moreover, the ongoing crisis is expanding beyond opioids, as seen in the recent trend of concurrent use of fentanyl and xylazine (a veterinary tranquilizer).<sup>16</sup> Over the past few years, more drug overdoses and deaths have involved opioids in combination with either other

opioids or nonopioid substances, including xylazine, benzodiazepines, and alcohol (all of which function as central nervous system depressants), as well as stimulants (a class of drugs that boosts alertness and energy, such as methamphetamine and cocaine).<sup>17</sup> For example, in 2020, approximately 40 percent of deaths involving illegally made fentanyl also involved stimulants; in 2023, methamphetamine was detected in 60 percent of fentanyl-positive urine drug test results, and cocaine was detected in 20 percent of those results.<sup>18</sup> Use of opioids with other substances has contributed to a higher risk of fatal overdoses and other adverse health outcomes recently because of the lack of effective treatment and because of lower rates of initiation of and shorter retention in OUD treatment among people who use multiple substances.<sup>19</sup>

Figure 2.

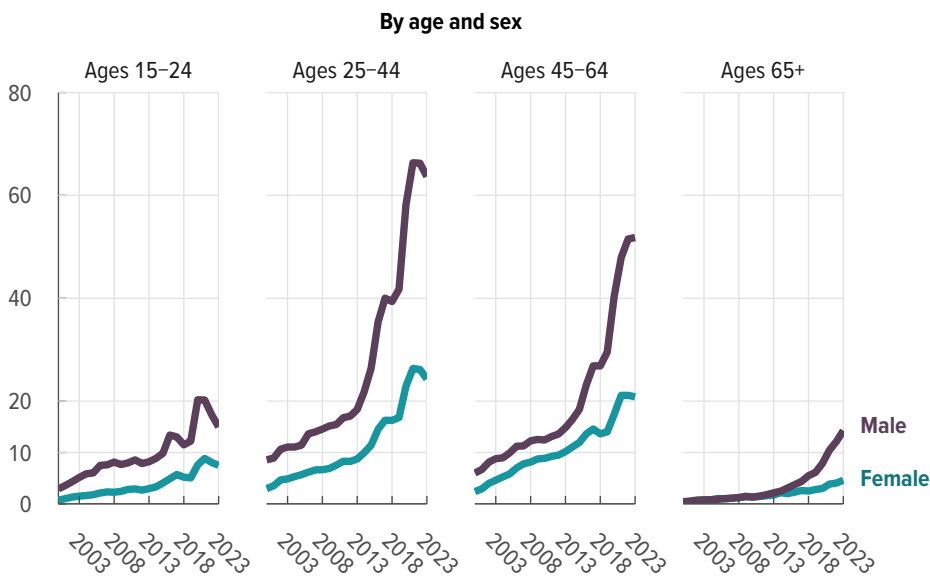
### Overdose Deaths Involving Opioids, by Race, Ethnicity, Age, and Sex

Deaths per 100,000 people



The number of opioid-involved deaths per capita for non-Hispanic White people, Native Americans, and Alaska Natives grew during the initial years of the opioid crisis. As the use of more potent synthetic opioids increased, the number of deaths also rose among people from other racial and ethnic groups.

The number of opioid-involved deaths per capita for men has been consistently higher than for women, and deaths per capita for people ages 25–44 grew rapidly in recent years.



Data source: Congressional Budget Office, using information from the CDC WONDER database, Centers for Disease Control and Prevention, National Center for Health Statistics, “About Multiple Cause of Death, 1999-2020,” <https://wonder.cdc.gov/mcd-icd10.html>; and “About Multiple Cause of Death, 2018-2023, Single Race,” <https://wonder.cdc.gov/mcd-icd10-expanded.html> (all accessed May 20, 2025). See [www.cbo.gov/publication/60889#data](http://www.cbo.gov/publication/60889#data).

The provisional 12-month-ending data shown in Figure 1 for 2024 are not available by demographic characteristics.

#### Demographic Breakdown of Overdose Deaths Involving Opioids

From the early 2000s until 2015, the rate of opioid-involved deaths rose fastest among non-Hispanic White and Native American or Alaska Native people, and through 2017 those two groups also had the highest rates of any racial group. Over the past decade, though, increases in opioid-involved deaths have

accelerated among non-Hispanic Black and Native American or Alaska Native people (see Figure 2, top panel), whereas growth among non-Hispanic White people has slowed. Since 2020, rates of opioid-involved deaths among non-Hispanic Black and Native American or Alaska Native people have exceeded deaths among non-Hispanic White people, and studies suggest that those trends are driven by higher rates of drug

## Box 1.

**A Review of the Labor Market Effects of the Opioid Crisis and Policy Approaches**

The opioid crisis and policies to mitigate it have influenced labor market outcomes and labor productivity. Those policies can affect the federal budget through changes in wages and total income in the economy.

Empirical evidence generally shows that opioid use has a detrimental effect on effective labor supply.<sup>148</sup> Opioid use can reduce the labor supply by decreasing work quality and increasing absenteeism, accidents, and fatalities. Several studies indicate that an increase in opioid prescriptions is linked to lower labor force participation, employment rates, labor income, work capacity, and job performance.<sup>149</sup> One study estimated that the surge in opioid prescriptions was responsible for 43 percent of the decline in men's labor force participation from 1999 to 2015.<sup>150</sup> A decline in labor force participation can lead to a reduction in the total labor income of the economy, decreasing the payment of income and payroll taxes and increasing eligibility for federally supported programs that provide benefits to people with lower income.

In assessing the effects of policies aimed at reducing opioid overdose, most of the literature has focused on policies to reduce the supply of prescription opioids. The results of those studies have been mixed. Some studies have shown that such policies led to overall increases in effective labor supply.<sup>151</sup> Other studies have shown that those policies can inadvertently

drive individuals toward the use of illicit opioids, leading not only to increases in overdoses involving illicit opioids but also to adverse labor market effects, such as decreased employment and labor force participation.<sup>152</sup>

Although medications for opioid use disorder (OUD) are effective at reducing opioid use and opioid overdoses, they have not been shown to have positive effects on labor market outcomes. Empirical evidence suggests no statistically significant differences in employment outcomes between patients who receive medications for OUD and those who do not.<sup>153</sup> That finding could stem at least in part from several factors: the limited number and quality of the studies, the short follow-up periods, or a lack of appropriate psychological and social services provided in conjunction with medication treatment.

In summary, the literature has not consistently shown positive labor market outcomes associated with reduced opioid use beyond the impact of that use on mortality (which generates an exit from the labor market). That finding does not necessarily imply that reducing opioid use does not improve labor market outcomes, however. Instead, it may suggest that some previously studied policies have not effectively reduced overall opioid use or that labor market improvements may take longer to materialize because individuals with OUD need time to recover from addiction.

overdose deaths involving fentanyl.<sup>20</sup> About 40 percent of the growth from 2010 to 2020 in opioid-involved deaths among non-Hispanic Black people, relative to non-Hispanic White people, can be attributed to the disproportionate spread of fentanyl in metropolitan areas in the eastern United States, where more than half of all non-Hispanic Black people lived in 2010.<sup>21</sup> From 2021 to 2023, the rate of opioid-involved deaths declined among non-Hispanic White people but increased in all other racial and ethnic groups.

The breakdown of opioid-involved deaths by sex and age follows a different pattern. Over the past two decades, the rate of opioid-involved overdose deaths among men has been consistently higher than the rate among women. In addition, death rates among people ages 25 to 44 have been consistently higher than rates for people at older ages (among men, for the entire period in Figure 2, and among women, for about half of the

period). During the pandemic, opioid-involved death rates surged across all age groups, particularly among men (see Figure 2, bottom panel). From 2019 to 2023, people ages 25 to 44 had the highest opioid-related death rates, and people ages 45 to 64 experienced the fastest growth in opioid-related death rates. Those figures suggest that the opioid crisis could have a large impact on the working-age population and, consequently, on labor market outcomes. (See Box 1 for a discussion about how the opioid crisis and related policies have affected labor market outcomes.)

**Legislation Enacted to Address the Opioid Crisis**

Lawmakers have enacted multiple pieces of legislation since 2016 to respond to the opioid crisis. Many authorizations of appropriations from those laws have expired or will expire over the next few years.<sup>22</sup> The actual amounts appropriated could differ from the amounts authorized.

- The Comprehensive Addiction and Recovery Act (CARA) of 2016 (Public Law 114-198, enacted in July 2016) encompassed approaches to reduce the supply of opioids, demand for opioids, and harm from those drugs. That law authorized appropriations for grants to improve state PDMPs and to expand access to opioid overdose reversal medications. In 2017, the first year after the enactment of CARA, lawmakers appropriated \$267 million pursuant to those authorizations. In 2021, authorizations of grants from CARA expired.
- The 21st Century Cures Act (P.L. 114-255, enacted in December 2016) authorized appropriations for grants to facilitate activities that reduce the demand for opioids and the harm caused by those drugs. The law established the State Targeted Response to the Opioid Crisis grant program. In 2017 and 2018, the Substance Abuse and Mental Health Services Administration (SAMHSA) awarded a total of \$971 million to states and territories to fund that program. Those authorizations of grants expired after 2018.
- The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act (P.L. 115-271, enacted in October 2018) included all three types of approaches but focused on reducing the demand for opioids by expanding access to treatment. Some authorizations in the SUPPORT Act were made permanent in 2024, including mandated Medicaid coverage for medications for OUD and a state plan option to cover services for Medicaid enrollees with SUD in eligible institutions for mental diseases (IMDs).<sup>23</sup> Other authorizations in the SUPPORT Act expired by 2023. Lawmakers appropriated \$1.2 billion for 2024 for activities related to substance use that have expired authorizations in the SUPPORT Act; the extent to which other authorizations in that law have been funded is unclear.<sup>24</sup>
- Several other laws were enacted between 2018 and 2020 to address the opioid crisis. The Synthetics Trafficking and Overdose Prevention (STOP) Act of 2018 (Title VIII of the SUPPORT Act), the International Narcotics Trafficking Emergency Response by Detecting Incoming Contraband with Technology (INTERDICT) Act (P.L. 115-112, enacted in January 2018), and the Fentanyl Sanctions Act, incorporated into the National Defense Authorization Act for Fiscal Year 2020 (P.L. 116-92, enacted in December 2019), focus on supply interdiction. Emergency appropriations of \$350 million for SAMHSA in the Coronavirus Aid, Relief, and Economic Security (CARES) Act (P.L. 116-136, enacted in March 2020) were intended to expand treatment for SUD.
- Since 2024, several laws have been enacted that aim to reduce the supply of illicit opioids and increase penalties for drug trafficking. The Eradicating Narcotic Drugs and Formulating Effective New Tools to Address National Yearly Losses (END FENTANYL) Act (P.L. 118-43, enacted in March 2024) directs Customs and Border Protection to update its inspection procedures for detecting fentanyl and related substances. Provisions of the Fentanyl Eradication and Narcotics Deterrence Off Fentanyl (FEND Off Fentanyl) Act, incorporated into the fiscal year 2024 emergency supplemental appropriations act (P.L. 118-50, enacted in March 2024), impose sanctions on individuals linked to cartels, authorize asset seizures, and target money laundering. The Halt All Lethal Trafficking of Fentanyl (HALT Fentanyl) Act (P.L. 119-26, enacted in July 2025) permanently classifies fentanyl analogs—synthetic opioids structurally related to fentanyl that can be even stronger and have unpredictable, dangerous effects—as Schedule I substances and increases criminal penalties for their possession and trafficking. Placement into Schedule I designates a drug as having no currently accepted medical use and a high potential for abuse under the Controlled Substances Act. Schedule I drugs are subject to the most restrictive controls on production and distribution, as well as more severe criminal penalties for trafficking.

## Details About the Policy Approaches That CBO Examined

CBO examined a variety of policy approaches that could be used to reduce the supply of illicit opioids, the demand for opioids, and the harm that can ensue from opioid use.

### Types of Policy Approaches

This report examines six main policy approaches and five additional approaches that seek to address the multiple dimensions of the opioid crisis. Of the six approaches examined in detail, one would reduce the supply of illicit opioids, four would lower the demand for opioids by preventing and treating OUD, and one

Table 1.

## The Impacts and Effectiveness of Policy Approaches to Address the Opioid Crisis

Policy approach	Outcomes studied	Policy effectiveness
<p>Reduce supply of opioids</p> <p>Interdict the supply of illicit opioids</p>	<p><b>Admission:</b> SUD treatment and inpatient  <b>Crime:</b> Drug-possession related and property  <b>Mortality:</b> Opioid-related and overall</p>	<p>Somewhat consistent evidence on reducing hospital and treatment admissions, crime rates, and mortality, though effects were temporary in some cases.</p>
<p>Reduce demand for opioids</p> <p>Expand the scope of Medicaid coverage for OUD treatment</p>	<p><b>Admission:</b> OUD treatment  <b>ED visits:</b> Opioid-related  <b>Mortality:</b> Opioid-related  <b>Retention in treatment:</b> OUD-related  <b>Treatment utilization:</b> OUD-related and MOUD</p>	<p>Consistent evidence on increasing OUD treatment use, MOUD use, treatment admissions, and treatment retention and on decreasing ED visits, but mixed results on mortality.</p>
<p>Expand access to telehealth for OUD treatment</p>	<p><b>Opioid overdose</b>  <b>Retention in treatment:</b> OUD-related  <b>Treatment utilization:</b> MOUD and SUD-related</p>	<p>Consistent evidence on decreasing opioid overdose rates and increasing treatment use, MOUD use, and retention.</p>
<p>Support treatment for individuals with OUD who are involved in the criminal justice system</p>	<p><b>Crime:</b> Overall, recidivism  <b>Mortality:</b> Opioid-related  <b>Retention in treatment:</b> SUD-related  <b>Treatment utilization:</b> SUD-related (in prison and postrelease)  <b>Use:</b> Opioids and other drugs</p>	<p>Consistent evidence on increasing treatment use and retention, and decreasing opioid and other drug use, crime and recidivism rates, and mortality rates.</p>
<p>Fund the enhancement of state PDMPs</p>	<p><b>Admission:</b> SUD treatment and inpatient shopping behavior  <b>Crime:</b> Illicit-opioids related and doctor shopping behavior  <b>ED visits:</b> Opioid-related  <b>Mortality:</b> Opioid-related and heroin-related  <b>Opioid prescription rate:</b> Overall and new users  <b>Use and misused opioids:</b> Heroin</p>	<p>Consistent evidence on reducing opioid prescriptions, opioid misuse, the amount of opioids dispensed to new users, treatment and hospital admissions, opioid-related ED visits, and opioid-related mortality rates. However, reductions in access to prescription opioids could shift some opioid use to illegal and riskier opioids, leading to increases in heroin use, related crime, and heroin-related death rates.</p>
<p>Reduce the harm from the use of opioids</p> <p>Increase access to opioid overdose reversal drugs</p>	<p><b>ED visits:</b> Opioid-related  <b>Mortality:</b> Opioid-related</p>	<p>Consistent evidence on reducing opioid overdose deaths, but mixed results on ED visits.</p>

Data source: Congressional Budget Office.

ED = emergency department; MOUD = medications for opioid use disorder; OUD = opioid use disorder; PDMPs = prescription drug monitoring programs; SUD = substance use disorder.

would mitigate the harm associated with opioid use. For details about those approaches—including outcomes and CBO’s assessment of the empirical evidence about the approaches’ effectiveness—see Table 1.

### How CBO Selected the Approaches

To examine the opioid crisis and policies that could be used to address its many facets, CBO reviewed the academic and policy literature and searched for related

legislation. The six main approaches that CBO examined have a lot of interest from Congress and substantial evidence about how they would affect relevant outcomes. The additional five approaches have received some interest from policymakers or have less empirical evidence to support them. For the main policy approaches, CBO gauged Congressional interest through their inclusion in legislative actions and proposals. For the additional approaches that are discussed more briefly, the agency



defined interest more broadly to also include actions and policies of executive branch agencies and general discussion by policymakers, stakeholders, and researchers.

For this analysis, CBO defined substantial evidence as at least six studies in total, consisting of three or more studies examining the effectiveness of a given policy—regardless of whether the results were positive, negative, or close to zero and thus null—that used randomized controlled trials or credible quasi-experimental designs and three or more correlational studies; both types of studies must have been published in peer-reviewed journals.<sup>25</sup> Those criteria tended to filter out policies that were less amenable to treatment-control comparisons (such as more targeted international drug-control agreements) and policies that have only recently been introduced in the United States and have not yet been assessed (such as the establishment of sites that are meant to allow people to consume opioids and other drugs under supervision).

## A Policy Approach to Reduce the Supply of Opioids

Strategies to reduce the supply of opioids aim to limit the supply of illegally produced opioids. Efforts by law enforcement to interrupt the supply chain of illegal drugs have been shown to reduce drug-related hospital inpatient admissions and overall mortality, although two studies found that the impact was temporary in the case of supply interdiction of methamphetamine (a powerful and highly addictive central nervous system stimulant) in the United States.<sup>26</sup> Those findings are based on past interdiction efforts; they may not apply directly to the current opioid crisis (which is fueled by synthetic opioids) because of differences in production and distribution.

### Reduce the Supply of Illicit Opioids Through Information Sharing and Counterdrug Efforts

Fentanyl and its analogs are the primary synthetic opioids associated with the rise in drug overdose deaths during the past decade. Fentanyl is often shipped to the United States by mail; Mexico and China are the main source countries for fentanyl and fentanyl-related substances trafficked directly into the United States.<sup>27</sup> The supply and delivery methods used by illicit suppliers and traffickers are constantly evolving, and novel synthetic drugs continue to emerge.

**Recent Legislation.** Lawmakers have enacted several policies that intend to reduce the amount of fentanyl

entering the United States. One policy leverages advance electronic data about parcels to identify illicit opioids from international shippers; that provision is part of the STOP Act of 2018. Another policy supports the capacity-building of foreign law enforcement agencies to reduce international drug trafficking; that provision is part of the Fighting Emerging Narcotics Through Additional Nations to Yield Lasting (FENTANYL) Results Act.<sup>28</sup> The END FENTANYL Act and provisions of the FEND Off Fentanyl Act included in the fiscal year 2024 emergency supplemental appropriations act aim to reduce the supply of illicit opioids by strengthening border inspections and targeting cartels and their assets.

In addition, the HALT Fentanyl Act automatically and permanently classifies all fentanyl-related substances (compounds that are structurally related to fentanyl) as Schedule I drugs without any additional administrative action from the Drug Enforcement Administration (DEA) or the Food and Drug Administration (FDA).<sup>29</sup> The recent permanent classification of fentanyl-related substances as Schedule I drugs is expected to strengthen supply interdiction efforts, but producers could respond by creating new synthetic opioids, dampening the intended effects on supply.

**Examples of Potential Policy Approaches.** Monitoring markets continuously, facilitating data collection, and additional interdiction efforts could reduce the supply of illicit opioids. Those approaches would include federal activities—for example, additional direct efforts by federal law enforcement agencies—and state and local activities.

Support for alternative methods of surveillance, data collection, and drug identification could improve the monitoring of markets for illicit opioids.<sup>30</sup> To facilitate data collection, lawmakers could expand efforts to analyze and track the emergence of new illicit opioids, including quantitative analyses of drug seizures by the DEA and state crime laboratories. Expanded information and data sharing among jurisdictions could improve local drug surveillance.

Interdiction activities in the drug supply chain could include more investigation of online vendors by federal agencies to identify transnational criminal groups. For example, the FEND Off Fentanyl Act provides additional authority to the Department of the Treasury to address money laundering associated with the trafficking

of illicit opioids. Another way to bolster counterdrug efforts—in addition to laws that increase monitoring of international mail shipments, such as the STOP Act of 2018, or that enhance border enforcement, such as the END FENTANYL Act—would be to incentivize state and local governments to share interdiction and investigation information with multiagency, multijurisdictional task forces that are focused on disrupting drug trafficking networks.<sup>31</sup>

**Evidence of Effectiveness.** Past interdiction efforts by law enforcement agencies have been shown to increase drug prices, reduce mortality and hospital admissions, and reduce crime rates, although two studies found that supply interdiction of methamphetamine in the United States had only a temporary impact. In the case of methamphetamine, regulation of wholesale and retail distribution of its ingredients in the United States in the 1990s led to an increase in prices and a reduction in adverse health outcomes, but those changes dissipated over time, possibly because producers found substitute ingredients.<sup>32</sup> In contrast, the interdiction of large quantities of imported heroin in Australia in 2001 was associated with a persistent reduction in opioid-involved and overall mortality.<sup>33</sup>

Those results may not apply to the current fentanyl crisis in the United States because there are multiple points of production and greater distribution capacity for that drug. The inputs to manufacture fentanyl are more easily obtained than were inputs for other drugs during previous crises, and small quantities can be produced without specialized facilities or highly technical skills.<sup>34</sup> Furthermore, the internet provides a broader distribution network for importers and distributors who traffic wholesale quantities of fentanyl and other synthetic opioids. As a result, traditional law enforcement and regulatory approaches that shut down production and disrupt drug trafficking networks may be less effective in combating the current crisis.

## Policy Approaches to Reduce the Demand for Opioids

Strategies to lower the demand for opioids aim to treat and prevent opioid use disorder. The standard of care for treating OUD is ongoing maintenance medication in combination with psychosocial treatment, which refers to any nondrug, professionally delivered intervention (such as counseling or talk therapy) provided to individuals, families, or groups.<sup>35</sup> Treatment for OUD is underused: In 2022 and 2023, only 34 percent of

adults with OUD reported receiving any treatment for substance use in the previous year, and only 19 percent received medications for OUD.<sup>36</sup> Barriers to receiving treatment include affordability, lack of access, and the stigma associated with the disorder.<sup>37</sup>

State Medicaid programs are generally required to cover all medications for OUD that have been approved by the FDA, but they are permitted to apply utilization management controls (such as prior authorization requirements) to that coverage.<sup>38</sup> The three FDA-approved medications for OUD are methadone, buprenorphine, and naltrexone. Those medications reduce opioid cravings and help to disconnect opioid use from established situational or emotional triggers. A substantial body of research has shown that treatment with medication is effective for reducing opioid use and retaining patients in care.<sup>39</sup> (See Box 2 for a discussion of the effectiveness of MOUD.)

Access to OUD treatment could be strengthened in several ways:

- By expanding the scope of Medicaid coverage,
- By expanding access to telehealth services, and
- By supporting treatment for people involved in the criminal justice system.

Those approaches have been shown to increase treatment utilization and to reduce rates of opioid use and overdose.

Some approaches to reduce the demand for opioids aim to prevent people from developing OUD. For example, prescription drug monitoring programs, which are available in all states and the District of Columbia in 2025, are state-run electronic databases that track the prescribing and dispensing of controlled substances. As of 2016, 18 states required prescribers to check the PDMP before prescribing controlled substances. Mandating or facilitating the use of PDMPs by providers tends to reduce the use of prescription opioids and the amount of opioids dispensed to new users, which can help prevent new cases of OUD and opioid overdose. Although PDMPs have also been used to curb overprescribing among existing opioid users, this report focuses on new users and the programs' preventive role, given that most opioid-related overdose deaths now originate from synthetic opioids.

## Box 2.

**Effectiveness of Medication in Treating Opioid Use Disorder**

In most cases, medication is part of a comprehensive strategy for treating opioid use disorder, or OUD—the compulsive use of opioids despite harmful consequences—that also includes counseling, social supports, or behavior change strategies.<sup>154</sup> Relative to psychosocial treatment alone, medication treatment for OUD is more effective in reducing many adverse health outcomes (including rates of relapse and overdose mortality) and in increasing retention in treatment. (Psychosocial treatment refers to any nondrug, professionally delivered intervention, such as counseling or talk therapy, provided to individuals, families, or groups.)

Evidence shows that treatment with methadone, buprenorphine, or naltrexone (the three medications approved by the Food and Drug Administration, or FDA, to treat OUD) can make a person 1.2 to 3 times more likely to remain in treatment than people treated without medication.<sup>155</sup> Those medications have been shown to reduce OUD-related symptoms, overdose mortality, the risk of infectious disease transmission, and criminal behavior associated with drug use.<sup>156</sup> People with OUD who are not treated with medication are more likely to return to using opioids than people who are treated with medication.<sup>157</sup> Finally, relative to those receiving psychosocial treatment only, people taking medication are at lower risk of having an overdose-related inpatient or emergency department stay, inducing self-harm, or having a prescription opioid filled after initiating treatment.<sup>158</sup>

Although all three medications have been shown to be effective, each is used in different settings and has different clinical requirements.<sup>159</sup> With few exceptions, treatment with methadone is limited to opioid treatment programs (OTPs), which are federally certified facilities that may also offer other forms of medication treatment.<sup>160</sup> Before the COVID-19 pandemic, people would take methadone daily, typically at an OTP, for a minimum of 12 months.<sup>161</sup> New regulations implemented during the COVID-19 public health emergency (policy changes that took effect on March 13, 2020, to allow the government to help provide free COVID-19 testing and vaccination) and were subsequently made permanent allow stable patients to take methadone at home for up to a month.<sup>162</sup> Buprenorphine, which research has found to be about as effective as methadone for treating OUD when given with sufficient dose and duration, can be prescribed and administered outside of specialty treatment facilities.<sup>163</sup> Naltrexone requires prior detoxification, so it is not used for initial treatment. Once detoxification is complete, naltrexone is about as effective as buprenorphine.<sup>164</sup>

In the context of increasing concurrent use of opioids with other substances, the use of medication for the treatment of OUD has some limitations. For example, patients taking opioids and the tranquilizer xylazine may require more intensive treatment to increase the likelihood of a successful outcome, as observed in those using multiple substances.<sup>165</sup> There are no FDA-approved medications for xylazine overdose or withdrawal.

Another existing program is Screening, Brief Intervention, and Referral to Treatment (SBIRT), which aims to prevent inappropriate opioid use that can lead to OUD by identifying people at risk for substance misuse, providing brief counseling on the dangers of opioid use, and connecting those in need with appropriate treatment resources. SBIRT is unevenly implemented across states and health care settings. Federal activities could support increased access to SBIRT, including by promoting integration into electronic health records (EHRs) and potentially enhancing Medicaid coverage of SBIRT services.

The approaches examined here primarily focus on Medicaid rather than Medicare or private health insurance for several reasons. First, Medicaid is the single largest payer for behavioral health services (including

mental health and substance use services), accounting for about one-fourth of all behavioral health spending.<sup>40</sup> Second, the rate of SUD is higher among Medicaid enrollees, at 21 percent, than among people with private health insurance (16 percent) or elderly Medicare beneficiaries (2 percent).<sup>41</sup> Those rates by payer are consistent with working-age adults' having the highest and fastest-growing opioid-related death rates in recent years.

**Expand the Scope of Medicaid Coverage for Treatment of OUD**

Medicaid is the largest payer for OUD treatment services, and Medicaid enrollees with OUD make up roughly 22 percent of the entire population with OUD as of 2019.<sup>42</sup> The scope of Medicaid coverage for OUD treatment and services varies across states, partly because

coverage for many of those services is optional under Medicaid law.<sup>43</sup> As of 2022, nearly all states covered all three FDA-approved medications for OUD and outpatient treatment services, but coverage of residential and inpatient services was more limited. For instance, 37 states covered medium- to high-intensity residential SUD treatment, which includes a highly structured environment with 24-hour oversight combined with at least 20 hours per week of counseling and other behavioral interventions.<sup>44</sup> Coverage of other levels of care, such as intensive inpatient services and partial hospitalization, also varied across states in 2022.<sup>45</sup>

**Recent Legislation.** Several provisions in the SUPPORT Act of 2018 temporarily expanded Medicaid coverage of OUD treatment.<sup>46</sup> Under the Consolidated Appropriations Act of 2024, some of those provisions were made permanent, including requiring Medicaid coverage of medications for OUD and allowing federal matching funds (through a new Medicaid state plan option) for services for Medicaid enrollees with SUD in eligible institutions for mental diseases.<sup>47</sup> Most states (37 as of October 2024) provide SUD services in IMDs through section 1115 waivers rather than through the state plan option created by the SUPPORT Act; only two states have adopted the state plan option.<sup>48</sup> Take-up of that option has been low, partly because section 1115 waivers offer more flexible length-of-stay limits.<sup>49</sup>

**Examples of Potential Policy Approaches.** Lawmakers could motivate or mandate state Medicaid programs to cover additional forms of OUD treatment. Those approaches might include expanding coverage of approved treatment settings in which medication for OUD is delivered, such as opioid treatment programs and federally qualified health centers, or offering additional types of treatment, such as intensive inpatient services and residential treatment.<sup>50</sup> Lawmakers could also facilitate state innovations in services to treat OUD through section 1115 waivers and other demonstration programs by establishing frameworks for new demonstration opportunities and by providing guidance to states. For example, the SUPPORT Act authorized a demonstration project to help states increase the capacity of their Medicaid providers to treat SUD and through which participating states receive an enhanced federal medical assistance percentage (the federal government's share of most spending for the Medicaid program) for SUD treatment services.<sup>51</sup>

**Evidence of Effectiveness.** Expanding Medicaid coverage of OUD treatment is associated with a higher likelihood that providers will offer those covered services (including MOUD) and greater use of treatment.<sup>52</sup> Removing Medicaid coverage of treatment could have opposite effects: When Oregon removed SUD treatment coverage from its Medicaid plan in 2003, admissions to opioid treatment programs dropped by more than half among Medicaid enrollees with OUD who sought treatment, and patients who left treatment experienced declines in health.<sup>53</sup>

In some settings, expansions of Medicaid eligibility and covered benefits have reduced opioid-related hospital admissions and mortality rates, but those effects are not consistent across studies.<sup>54</sup> Section 1115 SUD-IMD waivers increased acceptance of Medicaid at residential treatment facilities and may have moderately improved the use of medication treatment for Medicaid enrollees with OUD who had an inpatient or residential care stay.<sup>55</sup>

### **Expand Access to Telehealth Services for OUD Treatment**

Broadening access to telehealth services could reduce people's barriers to receiving OUD treatment by removing the need for time off from work, transportation, and childcare. Before the pandemic, telehealth was effectively used in other areas of medicine but was not used widely for mental health and SUD services.<sup>56</sup> During the pandemic, broader access to telehealth services for OUD treatment—facilitated by changes to Medicare and Medicaid rules—was linked to increases in OUD treatment.

The drugs used to treat OUD were subject to certain restrictions before the pandemic. First, because those drugs are controlled substances, their prescribing and dispensing required an in-person medical evaluation. Second, Medicaid and Medicare restricted the coverage of telehealth for OUD treatment based on various factors, including the locations of the patient and the provider (referred to as originating and distant sites, respectively), the modality (for instance, audio-only telehealth visits versus video plus audio), and whether a patient had an established relationship with a provider.

Some of those restrictions were waived temporarily during the COVID-19 public health emergency (PHE), which was in effect from March 13, 2020, to

May 11, 2023. (The PHE allowed the government to change specific policies to help provide services that were needed during the height of the pandemic, such as free COVID-19 testing and vaccination.) For example, buprenorphine prescribers were allowed to remotely initiate medication treatment for new patients in opioid treatment programs, stable patients were allowed to take methadone at home for up to a month, and Medicare covered telehealth services for behavioral or mental health care provided to beneficiaries in their home.<sup>57</sup>

Since then, some of the telehealth flexibilities implemented in Medicare during the PHE, including all of the examples mentioned above, have been made permanent.<sup>58</sup> In addition, 32 states plan to or have implemented additional expansions to telehealth policies under Medicaid's fee-for-service program. Those expansions include permanently adopting measures introduced during the PHE (such as allowing audio-only telehealth visits), expanding the range of services and providers accessible via telehealth services, and permitting patients to receive services from home.<sup>59</sup>

**Examples of Potential Policy Approaches.** Telehealth access for OUD treatment could be increased by expanding coverage in Medicare and Medicaid and by supporting the infrastructure that enables that technology. Lawmakers could broaden access to treatment for Medicare beneficiaries with OUD by making permanent certain telehealth flexibilities, most of which expired at the end of fiscal year 2025. (Some remaining provisions are set to expire by December 31, 2025.) Those flexibilities include allowing federally qualified health centers and rural health clinics to serve as distant-site providers of telehealth services and waiving the usual requirement for an in-person visit within six months of an initial behavioral or mental health telehealth visit and annually thereafter.<sup>60</sup>

For Medicaid, lawmakers could expand telehealth for OUD by encouraging or incentivizing state Medicaid programs to extend or make permanent PHE telehealth flexibilities for OUD treatment services. For example, continuing to cover the audio-only modality in Medicaid for OUD treatment services could help beneficiaries without access to high-speed broadband obtain treatment. That flexibility could especially benefit people who have lower income and who live in rural areas, because those people are less likely to have access to internet speeds that facilitate an audio-visual connection.<sup>61</sup> If

expansions were optional for states, existing state legislation or policies that limited MOUD prescribing via telemedicine could constrain take-up rates.<sup>62</sup>

The effectiveness of expanding Medicare or Medicaid coverage of telehealth services for OUD treatment would depend on the technological infrastructure and knowledge among providers and patients. Federal support could enable wider use of telehealth services by improving that technological infrastructure and training.

**Evidence of Effectiveness.** Expanding telehealth access for OUD treatment in Medicare and Medicaid would affect people with OUD who are enrolled in at least one of those programs. In 2019, those populations accounted for more than one-third of the total population with OUD.<sup>63</sup>

Research suggests that telehealth expansions could increase access to MOUD without compromising the effectiveness of treatment. Studies using prepandemic data suggest that telehealth for OUD treatment is about as effective as in-person treatment. Patients who were prescribed MOUD or received MOUD-related counseling via telehealth had treatment retention rates and subsequent reductions in opioid use that were comparable to those of patients who were treated in person.<sup>64</sup> During the pandemic, expanded use of telehealth services to prescribe MOUD in Medicare was associated with an increase in MOUD use and a lower likelihood of opioid overdose (relative to overdose rates among patients not receiving MOUD).<sup>65</sup>

### **Increase Access to Treatment for People With OUD Who Are Involved in the Criminal Justice System**

The rate of OUD among people who are incarcerated is estimated to be about 15 percent, compared with 2 percent among people ages 12 or older in the general population.<sup>66</sup> People who are recently released from correctional facilities have a risk of death from opioid overdose that is 40 times higher than that of the general population.<sup>67</sup>

Although MOUD is the standard of care to treat opioid addiction, fewer than half (44 percent) of jails offered medication treatment of OUD in 2022, and only 10 percent of the federal prison population needing medication treatment received MOUD.<sup>68</sup> One of the reasons cited by jail and prison administrators for not offering MOUD is a lack of funding, stemming in part

from the prohibition against the use of federal Medicaid funds to pay for health care services for incarcerated people. In states that have expanded Medicaid coverage under the Affordable Care Act, most incarcerated adults may be eligible for Medicaid.<sup>69</sup> Another commonly cited reason for not offering MOUD is a lack of licensed staff to dispense them.

**Recent Legislation.** Lawmakers enacted the First Step Act in 2018, which required the federal prison system to expand access to medications for inmates with OUD.<sup>70</sup> The federal Bureau of Prisons (BOP) began implementing a medication treatment program in 2019 in response to that requirement and planned to expand the program nationwide, but the Government Accountability Office found that BOP lacked key planning elements to complete the expansion in a timely manner.<sup>71</sup> Legislation introduced in recent years would allow Medicaid to cover behavioral health services, potentially including OUD treatment, for people who are incarcerated and nearing their release date, typically for a limited period.<sup>72</sup> That coverage of OUD treatment prerelease is currently being implemented through Medicaid on a limited state-by-state basis using section 1115 waivers.<sup>73</sup>

Programs that divert people from the criminal justice system and toward support services have been used to increase access to OUD treatment as well. In those diversion programs, people who commit low-level drug offenses are offered a variety of support services, including SUD treatment, instead of arrest and prosecution for criminal charges. One example is the Law Enforcement Assisted Diversion (LEAD) program, which was developed in 2011 and now operates in 73 jurisdictions in 23 states; that program allows law enforcement officers to redirect low-level offenders engaged in drug or prostitution activity to community-based services instead of jail and prosecution.<sup>74</sup>

Another type of diversion program is drug courts, which are specialized court docket programs designed to reduce drug relapse and criminal recidivism through judicial interaction, graduated sanctions and incentives, and treatment and rehabilitation services.<sup>75</sup> As of 2019, more than 1,600 adult drug courts were in operation, with a total of about 90,000 participants.<sup>76</sup>

**Examples of Potential Policy Approaches.** Lawmakers could increase access to OUD treatment in jails and prisons. One way to do that would be to expand OUD

treatment services via telehealth in those settings. That approach could help incarcerated people with OUD more easily access substance use treatment practitioners and other providers who may be in short supply. Access to OUD treatment for incarcerated people could also be expanded through Medicaid coverage. Using proposed legislation that amends Medicaid's exclusion of payments for inmates as a starting point, lawmakers could modify Medicaid coverage of OUD treatment services provided to inmates and thus reduce the administrative burden for reimbursement of OUD treatment in correctional facilities. Federal support could also be directed to existing or new diversion programs, drug courts, and other initiatives that offer treatment, including medications, as an alternative to incarceration for people with OUD who engage in low-level drug-related criminal activities.<sup>77</sup>

**Evidence of Effectiveness.** People with OUD who are involved in the criminal justice system—the population potentially affected by these policies—accounted for roughly 4 percent to 5 percent of the total population with OUD in 2019.<sup>78</sup> Medication programs to treat OUD in correctional facilities tend to reduce injection drug use and opioid-involved overdose deaths.<sup>79</sup> Those programs also led to increased treatment utilization after release and cost-effective reductions in recidivism.<sup>80</sup>

Diversion programs and drug courts are associated with lower rates of recidivism.<sup>81</sup> Drug courts have also been found to reduce people's probability of testing positive for illegal drugs.<sup>82</sup> Among adults in Indiana who were sentenced for substance-related crimes and who applied to participate in a drug court treatment program, participants were less likely to die and less likely to use emergency medical services than people who were accepted into a program but chose not to participate.<sup>83</sup>

### **Enhance State Prescription Drug Monitoring Programs**

Enhancing the effectiveness of PDMPs might reduce the use of prescription opioids and prevent new cases of OUD by changing the prescribing behavior of providers. PDMPs enable providers to check patients' prescription history and limit access to controlled substances for patients who are misusing opioids or who are opioid naïve (in other words, have not had an opioid prescription in the recent past). Those programs can also be used to monitor the behavior of providers who prescribe opioids in significantly larger quantities or doses than their peers. Because the current crisis is driven

by illegally manufactured opioids, this report emphasizes how PDMPs can prevent new cases of OUD and classifies them as a demand reduction approach. (In a 2022 report, CBO characterized PDMPs as a strategy to primarily reduce the supply of prescription opioids that could be misused.)

PDMPs that monitor more types of controlled substances and that update their data more frequently are associated with greater reductions in opioid-involved overdose deaths.<sup>84</sup> In 2024, all but eight states monitored controlled substances under Schedules II, III, IV, and V, and all but two states updated their data daily.<sup>85</sup> The SUPPORT Act of 2018 mandated several additional changes: It required all states to establish a PDMP that meets certain federal requirements, required providers who participate in Medicaid and are permitted to prescribe controlled substances to query PDMPs before prescribing those substances to Medicaid enrollees, and provided federal funds to match state Medicaid spending on the design, development, and implementation of PDMPs.<sup>86</sup>

**Examples of Potential Policy Approaches.** The federal government could support further improvements to PDMPs to increase their effectiveness and simplify their use. One such improvement would be to encourage states to require prescribers to access PDMPs before prescribing opioids and other controlled substances to any patient. Mandatory-access PDMPs could be made more effective through technological enhancements that make those systems functional without delay and accessible in locations where prescriptions are being written and dispensed.

If such mandates were in place and operational, one way to facilitate compliance would be by making PDMPs easier for providers to use by integrating them with electronic health records. Incompatibilities between PDMPs and EHRs—such as differences in user authentication requirements and standards for data access, use, and disclosure—are a barrier to the effective use of PDMP data in the clinical workflow.<sup>87</sup> Federal lawmakers could support state activities to integrate PDMPs with EHRs across health care settings. For example, SAMHSA funded projects to integrate PDMPs into health information technology systems in nine states from 2012 to 2016.<sup>88</sup> PDMP integration into EHR systems could reduce the time burden on providers and make it more

likely that they would comply with requirements to check the PDMP.

The interoperability of PDMPs across states could be improved by supporting cross-state collaborations to exchange data and by providing federal guidance on data content and exchange standards. Furthermore, the federal government could consider ways to improve the coordination of state PDMPs with federal health programs' own PDMPs, including those of the Department of Defense and the Department of Veterans Affairs, so that state residents who are receiving prescriptions through federal programs are also recorded in state PDMPs. Finally, more education and training for providers, payers, and patients on the use and benefits of PDMPs could enhance their effectiveness.

**Evidence of Effectiveness.** The available evidence suggests that requiring providers to query PDMPs and providing enhancements that facilitate greater use of PDMPs reduce the use of prescription opioids and the amount of opioids dispensed to new users, which can help prevent new cases of OUD and opioid overdose. Mandatory-access PDMPs reduce rates of opioid prescriptions, opioids dispensed to new users, opioid-related emergency department visits, and SUD treatment admissions.<sup>89</sup> Among PDMP enhancements, integration with EHRs and health information technology systems is associated with reductions in the amount of opioids prescribed and opioid-related inpatient discharges.<sup>90</sup> In contrast, evidence about the effectiveness of PDMP interoperability, which facilitates data sharing across states, is mixed.<sup>91</sup>

The benefits of improving PDMPs are offset by some amount of substitution from prescription opioids to illegal opioids (such as heroin and illicitly manufactured fentanyl). PDMPs may unintentionally cause some people who use prescription opioids nonmedically to switch to illegal opioids in response to reductions in the supply of prescription opioids and increases in the cost of obtaining prescription opioids. Evidence about the extent to which PDMPs increase heroin use and heroin-involved death rates is mixed.<sup>92</sup> Illicitly manufactured opiates (such as heroin) are more harmful than legally prescribed opioids because of greater uncertainty about the types of drugs that are present and the potency of their doses.<sup>93</sup>

### Three Additional Policy Approaches to Reduce the Demand for Opioids

Compared with the four main approaches to reduce demand, these three approaches have received less interest from lawmakers or have less empirical evidence of their effectiveness. In particular, evidence about the policies' effects is either mixed or is obscured by other concurrent policies. Nonetheless, CBO has included them to present a broader range of options to lawmakers. These three approaches would expand prevention programs—such as Screening, Brief Intervention, and Referral to Treatment programs—in health care settings, reduce barriers to prescribing buprenorphine, and expand Medicaid coverage of services that support recovery.

**Expand SBIRT Programs in Health Care Settings.** In 2003, SAMHSA launched SBIRT, awarding grants to six states and one tribal council to encourage adoption of the program across various health care settings.<sup>94</sup> The program's goals include expanding treatment for all substance use disorders, integrating early intervention into health care, and offering brief treatment options along with referrals for more intensive care when needed.

Evidence shows that SBIRT programs effectively identify and reduce risky alcohol and drug use. Study participants assigned to SBIRT groups have reported fewer days of heavy drinking and stimulant use than people in control groups.<sup>95</sup> SBIRT receipt was also associated with lower odds of substance-related diagnoses, hospitalizations, and drug use at follow-up.<sup>96</sup> In another study, people receiving SBIRT services had higher abstinence rates for cocaine and heroin and showed more substantial reductions in levels of cocaine in their bodies than people in the control group.<sup>97</sup> SBIRT is widely used, but evidence that it reduces opioid misuse or prevents progression to OUD is limited and mixed, especially compared with the evidence base for alcohol use.

States, health care organizations, and community programs could expand SBIRT services to prevent opioid use, potentially with federal support. In addition, states could be encouraged to increase Medicaid coverage of SBIRT services targeting opioid use in various health care settings, incentivizing providers to screen for opioid-related risks and intervene when necessary. Integration into EHRs could also expand SBIRT; that integration could include embedding validated screening tools, automated prompts, and referral tracking directly into routine clinical workflows.<sup>98</sup>

**Reduce Barriers to Prescribing Buprenorphine.** The Drug Addiction Treatment Act of 2000 instituted a federal requirement for health care providers to apply for a waiver to prescribe buprenorphine for the treatment of OUD and limited the number of patients that a waived provider could treat.<sup>99</sup> (Differences between buprenorphine and the other FDA-approved medications regarding the settings where they can be prescribed are explained in Box 2 on page 12.) The Consolidated Appropriations Act of 2023 eliminated that requirement and the limits on the number of patients. To make that policy more effective, lawmakers could address the inconsistencies across states in the scope-of-practice laws that govern the prescribing of certain medications by licensed nurse practitioners or physician assistants.<sup>100</sup> Increases in a county's share of providers who are eligible to prescribe buprenorphine are associated with greater use of MOUD and reductions in the rate of drug-related emergency department visits.<sup>101</sup>

Other barriers to prescribing buprenorphine are a lack of training and resources for providers and health insurers' prior authorization policies.<sup>102</sup> Expansion of innovative service delivery models, such as the hub-and-spoke model for OUD treatment, potentially with federal support, could help address the lack of training and resources.<sup>103</sup> In that model, hub sites provide more intensive treatment and management services for MOUD, particularly buprenorphine, and patients can be connected to spoke sites located within their communities for ongoing treatment and monitoring.<sup>104</sup>

Lawmakers could also encourage state Medicaid programs to limit the use of prior authorization requirements for buprenorphine, as has been done in Medicare.<sup>105</sup> One study found that between November 2020 and March 2021, 32 state Medicaid programs required prior authorization for at least one formulation of buprenorphine.<sup>106</sup> Evidence about whether removing Medicaid's prior authorization requirement increases buprenorphine provision and improves opioid-related health outcomes is mixed.<sup>107</sup>

**Expand Medicaid Coverage of Services That Support Recovery.** Recovery support services include a broad range of nonclinical services that assist people in initiating and sustaining recovery from an SUD. Those services encompass comprehensive community support, peer support, skills training, supported employment, and supportive housing (transitional housing for people

in recovery from an SUD). Although many states cover comprehensive community and peer support services, only four states covered some form of supportive housing as of 2018.<sup>108</sup> Some researchers have proposed expanding Medicaid coverage of such support services to help people recover from an SUD.<sup>109</sup>

Assessing the effects of such an expansion is difficult for two reasons. First, there are few rigorous studies on the subject. Second, such changes in coverage often occur at the same time as other changes in Medicaid coverage, and separating the effects can be problematic. For example, a program that added Medicaid coverage of peer recovery supports in Virginia was associated with a 20 percent increase in the probability of MOUD treatment and an 11 percent reduction in the probability of an inpatient admission. However, the program also increased reimbursement rates for addiction treatment, so the effects cannot be attributed solely to coverage of recovery support services.<sup>110</sup>

## Policy Approaches to Reduce the Harm From Opioid Use Disorder

Harm-reduction strategies aim to minimize the negative health, social, and legal impacts associated with drug use for people who use opioids (or other substances) and for their communities. Several federal laws have supported greater access to opioid overdose reversal medications as a harm-reduction approach. Expanding access to those medications has been shown to reduce opioid-involved overdose deaths.

Legislation has also supported syringe service programs, which are community-based initiatives that provide access to sterile syringes and safe disposal of needles. Those programs aim to reduce overdoses and transmission of diseases such as hepatitis C and HIV, but evidence about their effectiveness is mixed. Fentanyl test strips, one of several drug checking devices that allow people to analyze the chemical content of their drug samples, have also been supported by federal law.<sup>111</sup> Evidence is emerging that fentanyl test strips are associated with behaviors that lower the risk of overdose and that other drug checking devices can be used to monitor the supply of illicit opioids. (An association between two variables means that they tend to move together, but it does not necessarily imply that one causes the other.)

### Increase Access to Opioid Overdose Reversal Medications

Expanding access to naloxone and nalmefene, fast-acting opioid antagonists, could reduce the harm associated

with OUD. Those drugs rapidly counteract the effects of opioid overdose by binding to the same central nervous system receptors that opioids bind to. Their primary function is to reverse the respiratory depression caused by an opioid overdose and thus prevent death.

Naloxone, available in either injectable or nasal spray form, can be administered by medical providers and laypeople. The survival rate for people who are administered naloxone by a layperson is as high as 96 percent, and higher doses of naloxone are considered effective for individuals overdosing on fentanyl.<sup>112</sup> Nalmefene works similarly to naloxone and has stronger and more durable effects. The first nalmefene nasal spray was approved by the FDA in May 2023.<sup>113</sup>

Increased use of opioid overdose reversal medications faces several barriers, particularly among opioid users. One barrier is price. From 2016 to 2018, average out-of-pocket costs for Narcan, the dominant naloxone product, were \$74 per claim among the uninsured, a population that makes up 14 percent of adults with SUD, compared with \$14 per claim among the insured.<sup>114</sup> Other barriers to increased use of those medications that have been identified in interviews with opioid users include a lack of availability in their region, misunderstandings about the drugs' use and efficacy, the fear of legal consequences for seeking medical attention for a person who is overdosing, and the concern about being stigmatized by medical professionals.<sup>115</sup>

The FDA approved a nasal spray version of Narcan for over-the-counter (OTC) use in March 2023, a development that is expected to increase access to naloxone.<sup>116</sup> The price of OTC naloxone is higher than the out-of-pocket cost for insurance-paid prescriptions but lower than the out-of-pocket cost for uninsured people before OTC availability.<sup>117</sup>

**Examples of Potential Policy Approaches.** Lawmakers could increase access to opioid overdose reversal medications by taking various actions. First, they could encourage states to pass certain forms of naloxone access laws (NALs), which directly allow pharmacists to prescribe naloxone or dispense it without a prescription, because NALs that enable that type of direct authority have been shown to be more effective at reducing opioid overdose deaths. Second, lawmakers could encourage or require coprescribing of opioid overdose reversal medications (when a doctor writes a prescription for such a medication for a patient at the same time as the opioid

prescription). Third, they could support overdose education and naloxone distribution (OEND) programs.

- NALs make naloxone easier to obtain by expanding how the medication can be distributed to patients beyond traditional prescriptions. Those laws vary by state and can take several forms, including providing pharmacists with direct authority to prescribe naloxone to patients (also called prescriptive authority) or to dispense naloxone without a prescription; giving pharmacists indirect authority to provide naloxone to a large group of people meeting certain criteria, typically using a standing order or statewide protocol; or providing legal protection to those administering naloxone to people experiencing overdoses.<sup>118</sup> By 2016, nine states had NALs that provided pharmacists with direct authority to prescribe or dispense naloxone.
- For patients who receive opioid prescriptions and are at risk of opioid overdose, coprescribing could broaden access to opioid overdose reversal medications and potentially save lives. In 2016, the Centers for Disease Control and Prevention (CDC) issued a “Guideline for Prescribing Opioids for Chronic Pain,” which recommended that patients who were at risk of opioid overdose, including those receiving opioid prescriptions of 50 morphine milligram equivalents or more per day or those receiving both opioid and benzodiazepine prescriptions, receive a prescription for naloxone along with their opioid prescription. Coprescribing could be encouraged through the distribution of educational materials for prescribers and the inclusion of coprescribing prompts in electronic health records. As of July 2022, 12 states required the coprescribing of naloxone in certain situations when patients are at risk of opioid overdose.<sup>119</sup>
- OEND programs train laypeople to respond during overdoses and provide access to naloxone. Participating organizations include homeless shelters, libraries, and syringe exchange programs.<sup>120</sup> OEND programs do not require people to have a prescription to receive naloxone. Even though the FDA’s recent approval of OTC Narcan makes a prescription unnecessary, OEND programs may reduce other barriers to access, such as cost. Previously, states have used federal grants to purchase and distribute naloxone to first responders (such as emergency medical technicians, police officers, and firefighters) and to train them to administer the drug as part of OEND programs.<sup>121</sup>

**Evidence of Effectiveness.** Research suggests that broadening access to naloxone through NALs reduces opioid overdose deaths by 9 percent to 27 percent.<sup>122</sup> Among those laws, ones that grant pharmacists direct authority to prescribe naloxone appear to be the most effective at reducing opioid overdose deaths.<sup>123</sup> Additionally, states with direct authority NALs have had significantly higher naloxone dispensing rates and lower opioid-involved mortality rates following Narcan’s introduction, surpassing the effects of the laws alone.<sup>124</sup> Other policies to increase access—naloxone coprescribing, OEND programs, and distribution to first responders—are associated with reductions in opioid-involved emergency department visits and overdose deaths, but more evidence is needed to assess the causal effects of those policies.<sup>125</sup>

Concerns have been raised that increasing access to naloxone could result in users engaging in more risky behavior because they believe that naloxone provides them with a “safety net,” a phenomenon known as moral hazard. However, empirical evidence does not support that hypothesis.<sup>126</sup>

### Two Additional Policy Approaches to Reduce the Harm From OUD

Policies that support syringe service programs or expand the availability of drug checking devices and services could reduce opioid-related harm. The existing evidence base for these policies did not meet CBO’s criteria for substantial evidence, but the policies are included here because they have received some interest from lawmakers.

Syringe service programs, which provide a range of services to people who inject drugs, have been shown to increase treatment utilization but have had mixed effects on users’ health, possibly driven by increased use of heroin and fentanyl. Drug checking devices, which allow users or others to check the safety of drugs before consuming them, could be used by drug testing services and for monitoring the supply of illegal drugs. The use of some devices is associated with behaviors that lower the risk of opioid overdose.

**Support Syringe Service Programs.** Syringe service programs provide access to injection equipment and safe disposal of syringes. The programs are designed to reduce the spread of infectious conditions that can be transmitted through injection drug use, including hepatitis C,

HIV, methicillin-resistant *Staphylococcus aureus* (MRSA), and endocarditis. Most syringe service programs also offer referrals to treatment. Among injection drug users, those who use syringe service programs are more than five times likelier to enter treatment than those who have never used them.<sup>127</sup> However, a recent study that examined openings of syringe service programs found that even though they decreased HIV diagnosis rates, they were associated with three additional opioid-involved deaths per county per year, driven by new users of more potent opioids, such as heroin and fentanyl.<sup>128</sup>

Syringe service programs have been supported through federal grants in recent legislation. In the American Rescue Plan Act of 2021, for example, funding for those programs was included in the \$30 million appropriated for community-based funding of harm-reduction services.

**Expand the Availability of Drug Checking Devices and Services.** Drug checking devices and drug checking services are harm-reduction strategies that promote product safety in the illicit drug market by allowing people to check drug samples themselves or submit those samples for chemical analysis. By providing crucial information to users before they consume drugs, the services enable users to make more informed decisions and thus reduce their risks. Although well established in several European countries, drug checking is still emerging in the United States.<sup>129</sup>

Drug checking devices include fentanyl test strips (FTS) and spectrometers (devices that use light to identify the presence of substances by analyzing their chemical signatures).<sup>130</sup> FTS can be distributed to people who use drugs and can be used wherever drugs are being consumed. By contrast, spectrometers and other advanced testing devices usually require people to go to a specific site and submit their drugs for testing. Those devices detect fentanyl, its analogs, and other potential contaminants in the drug supply. The Massachusetts Drug Supply Data Stream (MADDS), the nation's first statewide community drug checking program, detected fentanyl in 47 percent of samples tested in 2020.<sup>131</sup> By early 2021, MADDS identified changes in cocaine purity, warned communities of a new toxic fentanyl analog and synthetic cannabinoid contaminant, and confirmed an increase in xylazine in Massachusetts.<sup>132</sup>

Although the distribution of fentanyl test strips has increased in the United States recently, their adoption

has been hindered by the stigma associated with people who use drugs and by existing laws that may discourage states and organizations from applying for grants to acquire test strips or from establishing distribution programs.<sup>133</sup> In April 2021, the CDC and SAMHSA began allowing federal funding to be used to purchase FTS for research, clinical, or public health purposes.<sup>134</sup> As of July 2023, 31 states and territories and the District of Columbia had legalized the use of FTS.<sup>135</sup>

Despite those measures, access to drug checking services remains limited for vulnerable populations.<sup>136</sup> Lawmakers could expand access to drug testing programs by supporting community organizations carrying out harm-reduction initiatives that include drug testing services.

Evidence shows that drug users who were given access to FTS and confirmed the presence of fentanyl reduced their overdose risk by using drugs more slowly, consuming less, discarding the batch, or using substances in the presence of another person.<sup>137</sup> However, a lack of peer-reviewed evidence about the effectiveness of self-testing in preventing fentanyl overdoses has led some researchers to question those findings.<sup>138</sup>

## Budgetary Effects of the Policy Approaches

If adopted, the six main policy approaches examined in this report would change federal outlays (and some of them would also change revenues), largely by altering spending in federally subsidized health insurance programs or by appropriating funds for federal grants.<sup>139</sup>

To assess the impact of the policies on the federal budget, CBO would track up to four types of effects: initial effects, subsequent effects on health care spending, effects stemming from changes in the total population, and dynamic effects. CBO would undertake dynamic analysis (which considers the effects on the total output of the economy) when practicable if opioid-related policies were part of a large set of policies that would have a major effect on GDP.

In general, CBO's estimates cover a 10-year period. When assessing the potential impacts of a policy on outcomes and how those impacts might affect the federal budget, CBO considers whether adequate evidence exists to make those determinations and whether estimates of outlays and revenues are calculable for the 10-year

period. To assess budgetary effects beyond the 10-year period, CBO could use present-value estimates (which summarize a series of projected values in the future as a single value in the present) in certain instances.

### Initial Effects of the Policy Approaches

The policies that CBO examined in this report have initial effects that would occur regardless of whether the policies caused people's health to change. Such initial effects are included in CBO's conventional estimates, which reflect the long-standing convention (used in most of the agency's cost estimates) that the size of the economy does not change. For example, the costs of OUD treatment are included in initial effects.

Most of the policy approaches that aimed to reduce the demand for opioids would affect either the scope of health coverage in Medicaid or Medicare or health care utilization by enrollees in those programs without coverage changes. Additionally, policy approaches that sought to reduce the supply of opioids or the harm from opioids would influence utilization in federally subsidized health insurance programs, including Medicaid, Medicare, employment-based health insurance, and nongroup coverage under the Affordable Care Act. If legislation authorized the appropriation of funds for opioid-related grants without directly providing the funding, the initial effects would be limited to the amounts authorized to be appropriated, and other subsequent effects would generally not be included in cost estimates.<sup>140</sup>

**Policies Affecting the Scope of Coverage.** Policies that affected the scope of coverage in Medicaid and Medicare would alter mandatory spending. Among the policies that would increase mandatory spending are ones that would expand Medicaid coverage of OUD treatment services (for example, by expanding coverage for approved treatment settings in which medication for OUD was delivered or by covering additional types of treatment, such as intensive inpatient services and residential treatment), policies that would allow federal Medicaid funding to cover treatment for OUD provided to incarcerated people, and policies that would make permanent certain telehealth flexibilities (which are set to expire at the end of 2025) for Medicare beneficiaries.

The size of those policies' effects would depend on many factors, including the range of services, modalities, or settings included in any Medicaid or Medicare coverage expansion; the price of services; the size of affected

populations; and the availability of providers. For Medicaid, the spending effects would also depend on the structure of any federal financial participation, whether the proposed coverage changes were required or optional, and, if optional, each state's likelihood of choosing to take up the expansion.

CBO has previously estimated the budgetary impacts of policies that would increase mandatory spending on treatments for OUD.<sup>141</sup> A policy requiring Medicaid to cover medications for OUD and behavioral health services was estimated to increase mandatory spending by \$273 million over a 10-year period. A policy allowing Medicaid to pay for services provided to enrolled inmates during the last 30 days of their incarceration was estimated to increase mandatory spending by \$3.7 billion over a 10-year period. Differences in the size of the effects on mandatory spending were driven in part by the extent of changes in coverage (and the share of Medicaid enrollees that would be affected by such changes) under the policy relative to coverage under current law.

**Policies Affecting Health Care Utilization Without Coverage Changes.** Federal outlays for Medicaid and Medicare could change if policies affected the health care utilization of enrollees in those programs without altering the scope of coverage. For example, making prescription drug monitoring programs more effective could decrease federal spending by reducing the number of opioid prescriptions paid for by Medicaid and Medicare. Outlays would rise, however, if policies were implemented that increased the use of opioid overdose reversal medications—for example, by allowing pharmacists to prescribe naloxone or encouraging doctors to coprescribe naloxone along with an opioid.

Changes in health care utilization among people enrolled in employment-based health insurance or nongroup coverage could affect federal subsidies for that insurance. Policies that increased the use of opioid overdose reversal medications could raise spending on those drugs for some individuals with employment-based or nongroup coverage, resulting in higher premiums. For enrollees with employment-based insurance, higher premiums would decrease the share of compensation that took the form of taxable wages and salaries and increase the share provided as nontaxable health benefits, in CBO's estimation, which would lower federal revenues. Changes in premiums for enrollees with nongroup coverage would affect federal revenues and outlays for premium

tax credits under the Affordable Care Act. The precise budgetary effects would depend on the size of those responses and the prices of the affected services and drugs.

### **Policies Funded Through Spending on Federal Grants.**

Many grant programs that address the opioid crisis have been funded in appropriation acts. Federal grants are used by federal agencies to carry out activities; the grants are also disbursed to state and local governments. Legislation authorizing those grants has authorized amounts ranging from \$90 million to \$1.1 billion in total over five years.<sup>142</sup> The actual amounts appropriated may have differed from the amounts authorized.<sup>143</sup> According to one estimate, from 2017 to 2020, total annual appropriations for the opioid crisis nearly tripled, rising from \$2.1 billion to \$6.1 billion.<sup>144</sup>

### **Subsequent Effects on Health Care Spending**

In addition to their initial effects, policies aimed at addressing the opioid crisis could lead to subsequent changes in health care spending that arise because of changes in people's health. When policy approaches improve people's health, those changes can yield savings later through averted health care spending. Such averted spending includes fewer emergency department visits related to opioid overdoses or less need for treatment of conditions such as neonatal abstinence syndrome (NAS), which occurs in newborns as a result of prenatal exposure to certain substances, most often opioids. Other changes in people's health could offset those savings, or health care costs could even increase. For instance, studies have found that when the supply of prescription opioids decreases, some people who had been misusing those drugs switch to heroin, resulting in no net change in opioid-involved mortality.<sup>145</sup> Additionally, newborns of mothers who took medication treatment for OUD during their pregnancy may develop NAS, which would tend to increase costs.<sup>146</sup>

The magnitude of subsequent effects on health care spending related to OUD and opioid overdoses would depend on a policy's effectiveness, as well as the health insurance status and coverage types of the people affected by the policy. Among adults with substance use disorder in 2020, 58 percent were privately insured, 21 percent were covered by Medicaid, 14 percent were uninsured, and the remaining 7 percent had other types of coverage.<sup>147</sup> CBO has not estimated whether any particular policy would increase or decrease spending on net, because the budgetary effects would depend on

the policy's details. In its conventional cost estimates, CBO typically includes subsequent effects on health care spending when the agency can determine the magnitude of such effects on the federal budget.

### **Effects of Changes in the Total Population**

Policies that reduced opioid-involved overdose deaths would extend people's longevity and, in turn, increase outlays for various federal programs and boost revenues. Reducing opioid-involved mortality would expand the population of the United States and probably lead to an increase in the number of people who were working, because people in their prime working years (ages 25 to 44) have the highest rates of death from opioid overdose. If more people were working, the federal government would collect additional payroll and income taxes from an increase in labor income. Reducing opioid-involved mortality would also increase outlays for federal programs, including Medicaid, SNAP, Medicare, and Social Security, as more people collected those benefits or as people collected them for longer. Whether the changes resulted in budgetary savings or costs would depend on factors such as the amount of additional income earned by people who were affected by the policy and the amount of additional federal benefits they collected. Because overdose deaths are concentrated among younger people, greater spending on Medicare and Social Security retirement benefits from averted deaths would mostly occur beyond the typical 10-year period used for CBO's budget analyses.

### **Dynamic Effects**

Dynamic effects include the effects discussed above, as well as all other effects on spending and revenues stemming from changes in the size of the economy. The policy approaches examined in this report could affect the economy through improved health—resulting in more total hours worked, higher hourly wages, increased labor force growth, and greater business investment—which, in turn, could boost total income across the economy. The research literature has not consistently shown positive labor outcomes associated with reduced opioid use, beyond the impact of that use on mortality (see Box 2 on page 12). Higher income would reduce the federal deficit in two primary ways: through more payment of income and payroll taxes and through less eligibility for federally supported programs that provide benefits to people with lower income. Higher income would boost interest rates as well, pushing up the government's net interest costs and partially offsetting the increase in revenues.

1. Centers for Disease Control and Prevention, National Center for Health Statistics, “National Vital Statistics System: Provisional Drug Overdose Death Counts” (accessed on May 20, 2025), [www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm](http://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm).
2. By contrast, a recent randomized controlled trial evaluating evidence-based practices encompassing several policy approaches—such as overdose education and naloxone distribution, the use of medications for the treatment of opioid use disorder, and prescription opioid safety—found similar death rates in both the intervention and control groups over a 12-month multimodal intervention. That null effect may indicate that the benefits of those practices take longer to materialize or that the pandemic disrupted their effectiveness. For more information, see HEALing Communities Study Consortium, “Community-Based Cluster-Randomized Trial to Reduce Opioid Overdose Deaths,” *New England Journal of Medicine*, vol. 391, no. 11 (September 19, 2024), pp. 989–1001, <https://doi.org/10.1056/NEJMoa2401177>.
3. Coprescribe means to prescribe two or more medications together for the same person, usually at the same time. In March 2023, the Food and Drug Administration approved Narcan, a naloxone nasal spray, for over-the-counter use without a prescription, which is expected to enhance access to the drug. Several barriers may impede its widespread adoption, however, including pharmacy stocking decisions, cost, lack of awareness about how to obtain the drug in pharmacies, and confusing insurance reimbursement policies. See Heather Saunders and Robin Rudowitz, “Will Availability of Over-the-Counter Narcan Increase Access?” (KFF, September 19, 2023), <https://tinyurl.com/ymk9x5te>.
4. For legislation that authorized the appropriation of funding for such grants but did not provide the funding directly, CBO would estimate the amounts authorized to be appropriated but would not attribute any subsequent effects from the grants to that legislation.
5. Centers for Disease Control and Prevention, National Center for Health Statistics, “Mortality Data on CDC WONDER” (December 10, 2025), <https://wonder.cdc.gov/mcd.html>, and National Center for Health Statistics, “National Vital Statistics System: Provisional Drug Overdose Death Counts” (accessed on September 17, 2025), [www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm](http://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm). The number for 2024 is the provisional count of opioid-involved drug overdose deaths for the 12-month period ending on December 31, 2024.
6. Katherine M. Keyes and others, “What Is the Prevalence of and Trend in Opioid Use Disorder in the United States From 2010 to 2019? Using Multiplier Approaches to Estimate Prevalence for an Unknown Population Size,” *Drug and Alcohol Dependence Reports*, vol. 3 (June 2022), article 100052, <https://doi.org/10.1016/j.dadr.2022.100052>.
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8. Steven H. Woolf and Heidi Schoomaker, “Life Expectancy and Mortality Rates in the United States, 1959–2017,” *JAMA*, vol. 322, no. 20 (November 2019), pp. 1996–2016, <https://doi.org/10.1001/jama.2019.16932>.
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12. See endnote 5.
13. See endnote 1.

14. Centers for Disease Control and Prevention, “Fentanyl Facts” (April 2, 2024), <https://tinyurl.com/542t6v7j>.
15. Congressional Budget Office, *The Opioid Crisis and Recent Federal Policy Responses* (September 2022), [www.cbo.gov/publication/58221](http://www.cbo.gov/publication/58221).
16. A study from 10 U.S. cities revealed that xylazine’s involvement in drug overdose deaths increased from less than 1 percent in 2015 to nearly 7 percent in 2020. See Joseph Friedman and others, “Xylazine Spreads Across the U.S.: A Growing Component of the Increasingly Synthetic and Polysubstance Overdose Crisis,” *Drug and Alcohol Dependence*, vol. 233 (April 2022), article 109380, <https://doi.org/10.1016/j.drugalcdep.2022.109380>.
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139. Discretionary spending stems from authority provided in appropriation acts; direct (or mandatory) spending and revenues (tax receipts and other collections that arise from the federal government’s use of its sovereign power) are generally controlled by laws other than appropriation acts.
140. Programs that are funded in appropriation acts can affect mandatory spending (because of changes in health care utilization) and spending paid for by federally subsidized health insurance. Effects on mandatory spending and revenues stemming from changes in a discretionary federal grant would not be included in cost estimates prepared for budget enforcement purposes because of scorekeeping guidelines. When providing budgetary information to Congress, CBO follows a set of principles that include 16 scorekeeping guidelines. In estimating the cost of appropriation bills prepared for budget enforcement purposes, CBO is directed by guideline 3 to exclude anticipated changes to mandatory spending or revenues that may result if the bill only increases or decreases discretionary funding for related activities (rather than making substantive changes to the way a program operates). For more information, see Congressional Budget Office, *CBO Explains Budgetary Scorekeeping Guidelines* (January 2021), [www.cbo.gov/publication/56507](http://www.cbo.gov/publication/56507).

141. Examples are illustrative and do not imply that future cost estimates will fall within that range. Permanently extending a provision in the SUPPORT Act, which requires Medicaid coverage of medications for OUD and behavioral health services, would increase spending by \$273 million over 10 years; see Congressional Budget Office, cost estimate for Consolidated Appropriations Act, 2024 (March 5, 2024), [www.cbo.gov/publication/60058](http://www.cbo.gov/publication/60058). Creating a five-year exception to the Medicaid inmate exclusion, which would allow Medicaid to pay for services to enrolled inmates during the last 30 days of their incarceration, would increase mandatory spending by \$3.7 billion over 10 years; see Congressional Budget Office, cost estimate for Reconciliation Recommendations of the House Committee on Energy and Commerce (February 12, 2021), [www.cbo.gov/publication/57002](http://www.cbo.gov/publication/57002). Nearly all state Medicaid programs already cover buprenorphine and naltrexone, and three-quarters cover methadone, contributing to the lower cost of permanently extending a requirement for Medicaid to cover medications for OUD. For more information, see Medicaid and CHIP Payment and Access Commission, “Access to Substance Use Disorder Treatment in Medicaid,” Chapter 4 in *Report to Congress on Medicaid and CHIP* (June 2018), <https://tinyurl.com/2bx9rc6h>. In contrast, federal Medicaid reimbursement for services provided to incarcerated people is generally prohibited in nearly all states, contributing to the higher cost if lawmakers enacted an exception to this prohibition. As of August 2024, eleven states have approved section 1115 waivers to provide pre-release services to certain incarcerated, Medicaid-eligible people. See Elizabeth Hinton, Akash Pillai, and Amaya Diana, “Section 1115 Waiver Watch: Medicaid Pre-Release Services for People Who Are Incarcerated” (KFF, August 19, 2024), <https://tinyurl.com/rxj6m89s>.
142. CARA authorized the appropriation of \$90 million for grants for expanding access to opioid overdose reversal medications, devices, and education. See Congressional Budget Office, *The Opioid Crisis and Recent Federal Policy Responses* (September 2022), [www.cbo.gov/publication/58221](http://www.cbo.gov/publication/58221). In the middle of the range, S. 2789, the Substance Abuse Prevention Act of 2018, would authorize the appropriation of \$300 million over four years for the Office of National Drug Control Policy’s Drug Court Program. See Congressional Budget Office, cost estimate for S. 2789, Substance Abuse Prevention Act of 2018 (August 14, 2018), [www.cbo.gov/publication/54380](http://www.cbo.gov/publication/54380). On the higher end of the range, the same bill would authorize \$1.1 billion over four years to coordinate drug control efforts among local, state, and federal law enforcement agencies.
143. Quantifying how much of the funds that were authorized in opioid-related laws were later appropriated is challenging for two reasons. First, appropriation acts may not clearly identify the legislation that authorized the funding. For instance, the legislative text may be sufficiently broad to support a range of activities related to opioids, including ones authorized by the laws discussed in this report, but also those from other authorizations. Second, appropriation acts may identify specific authorizing legislation but provide one amount of funding for multiple programs, making it impossible to identify the appropriated amounts related to specific authorizing legislation.
144. Michele Gazda, G. William Hoagland, and Arnand Parekh, *Combating the Opioid Crisis: Smarter Spending to Enhance the Federal Response* (Bipartisan Policy Center, April 2022), Figure 10, <https://tinyurl.com/93dcwb7w>.
145. William N. Evans, Ethan M. J. Lieber, and Patrick Power, “How the Reformulation of OxyContin Ignited the Heroin Epidemic,” *Review of Economics and Statistics*, vol. 101, no. 1 (March 2019), pp. 1-15, [https://doi.org/10.1162/rest\\_a\\_00755](https://doi.org/10.1162/rest_a_00755); and Abby Alpert, David Powell, and Rosalie Liccardo Pacula, “Supply-Side Drug Policy in the Presence of Substitutes: Evidence From the Introduction of Abuse-Deterrent Opioids,” *American Economic Journal: Economic Policy*, vol. 10, no. 4 (November 2018), pp. 1–35, <https://doi.org/10.1257/pol.20170082>.
146. Karen McQueen and Jodie Murphy-Oikonen, “Neonatal Abstinence Syndrome,” *New England Journal of Medicine*, vol. 375, no. 25 (June 21, 2016), <https://doi.org/10.1056/NEJMra1600879>.
147. Heather Saunders and Robin Rudowitz, “Demographics and Health Insurance Coverage of Nonelderly Adults With Mental Illness and Substance Use Disorders in 2020” (KFF, June 6, 2022), <https://tinyurl.com/2vvyhz9z>.
148. Effective labor supply refers to the combined measure of the number of workers and their productivity. The measure is used to assess labor’s overall contribution to economic output.

149. Alan B. Krueger, “Where Have All the Workers Gone? An Inquiry Into the Decline of the U.S. Labor Force Participation Rate,” *Brookings Papers on Economic Activity* (Fall 2017), pp. 1–87, <https://doi.org/10.1353/eca.2017.0012>; Matthew C. Harris and others, “Prescription Opioids and Labor Market Pains: The Effect of Schedule II Opioids on Labor Force Participation and Unemployment,” *Journal of Human Resources*, vol. 55, no. 4 (October 2020), pp. 1319–1364, <https://doi.org/10.3368/jhr.55.4.1017-9093R2>; Dionissi Aliprantis, Kyle D. Fee, and Mark E. Schweitzer, *Opioids and the Labor Market*, Working Paper 18-07R (Federal Reserve Bank of Cleveland, March 2019), <https://doi.org/10.26509/frbc-wp-201807r>; Abby E. Alpert, Steve Schwab, and Benjamin D. Ukert, *Opioid Use and Employment Outcomes: Evidence From the U.S. Military*, Working Paper 30110 (National Bureau of Economic Research, June 2022), [www.nber.org/papers/w30110](http://www.nber.org/papers/w30110); and Eric Goplerud, Sarah Hodge, and Tess Benham, “A Substance Use Cost Calculator for U.S. Employers With an Emphasis on Prescription Pain Medication Misuse,” *Journal of Occupational and Environmental Medicine*, vol. 59, no. 11 (November 2017), pp. 1063–1071, <https://doi.org/10.1097/JOM.0000000000001157>.
150. Alan B. Krueger, “Where Have All the Workers Gone? An Inquiry Into the Decline of the U.S. Labor Force Participation Rate,” *Brookings Papers on Economic Activity* (Fall 2017), pp. 1–87, <https://doi.org/10.1353/eca.2017.0012>.
151. Claudio Deiana and Ludovica Giua find that some state-level laws aimed at reducing the supply of prescription opioids were associated with an increase in the employment rate. David Beheshti shows that rescheduling hydrocodone, a potent prescription opioid pain medication, to a more restrictive schedule under the Controlled Substances Act, which reduced the amount of hydrocodone distributed, was associated with an increase in labor force participation driven by increases in employment. See David Beheshti, “The Impact of Opioids on the Labor Market: Evidence From Drug Rescheduling,” *Journal of Human Resources*, vol. 58, no. 6 (November 2023), pp. 2001–2041, <https://doi.org/10.3368/jhr.0320-10762R1>; and Claudio Deiana and Ludovica Giua, *The U.S. Opioid Epidemic: Prescription Opioids, Labour Market Conditions, and Crime*, MPRA Paper 85712 (University Library of Munich, Germany, March 2018), <https://ideas.repec.org/p/pral/mprapa/85712.html>.
152. David Cho and others discovered that in 2010, after the reformulation of OxyContin resulted in a nationwide reduction in the supply of oxycodone, states with a higher reliance on that prescription opioid experienced substantial surges in heroin use and related mortality rates, contributing to a decrease in employment and labor force participation. Similarly, Sujeong Park and David Powell found that a shift toward illicit opioids, prompted by the same 2010 policy, resulted in diminished labor market participation and an increase in applications for Social Security Disability Insurance and Supplemental Security Income. The policy was also associated with reductions in retail sales and firms’ revenues. See David Cho and others, *Labor Market Effects of the Oxycodone-Heroin Epidemic*, Finance and Economics Discussion Series 2021-025 (Federal Reserve Board, April 12, 2021), <https://doi.org/10.17016/FEDS.2021.025>; Sujeong Park and David Powell, “Is the Rise in Illicit Opioids Affecting Labor Supply and Disability Claiming Rates?” *Journal of Health Economics*, vol. 76 (March 2021), article 102430, <https://doi.org/10.1016/j.jhealeco.2021.102430>; and Bokyung Kim, Minseog Kim, and Geunyoung Park, *The Opioid Crisis and the Role of Employers* (Stanford Institute for Economic Policy Research, January 2024), <https://tinyurl.com/yuj8wprj>.
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154. Alan I. Leshner and Michelle Mancher, eds., *Medications for Opioid Use Disorder Save Lives* (The National Academies Press, 2019), <https://doi.org/10.17226/25310>.

155. Richard P. Mattick and others, “Methadone Maintenance Therapy Versus No Opioid Replacement Therapy for Opioid Dependence,” *Cochrane Database of Systematic Reviews*, vol. 2 (2003), <https://tinyurl.com/hhxmv45r>; Richard P. Mattick and others, “Buprenorphine Maintenance Versus Placebo or Methadone Maintenance for Opioid Dependence,” *Cochrane Database of Systematic Reviews*, vol. 2 (2014), <https://doi.org/10.1002/14651858.CD002207.pub4>; and Moein Zangiabadian and others, “The Effects of Naltrexone on Retention in Treatment and Being Opioid-Free in Opioid-Dependent People: A Systematic Review and Meta-Analysis,” *Frontiers in Psychiatry*, vol. 13 (September 2022), article 1003257, <https://tinyurl.com/4e6duhux>.
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# About This Document

This report by the Congressional Budget Office was prepared at the request of the Ranking Member of the House Committee on Energy and Commerce. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Claire Hou and Grace Hwang wrote the report with guidance from Aditi Sen and Tamara Hayford. Carrie H. Colla (a consultant to CBO) and Ryan Mutter (formerly of CBO) contributed to the report. Molly Dahl, Elizabeth Cove Delisle, Noelia Duchovny, Sean Dunbar, Ryan Greenfield, Justin Humphrey, Sarah Masi, John McClelland, Aaron Pervin, Lara Robillard, Emily Stern, Robert Sunshine (a consultant to CBO), and Chapin White provided useful comments. Julianna Mack (formerly of CBO), Kaylee Nielson, and Joyce Shin fact-checked the report.

Rosalie Pacula of the University of Southern California and Keith Humphreys of Stanford University commented on an earlier draft. The assistance of external reviewers implies no responsibility for the final product; that responsibility rests solely with CBO.

Mark Doms (formerly of CBO) and Jeffrey Kling reviewed the report. Christine Bogusz edited it, and Casey Labrack created the graphics and prepared the text for publication. The report is available at [www.cbo.gov/publication/60889](http://www.cbo.gov/publication/60889).

CBO seeks feedback to make its work as useful as possible. Please send comments to [communications@cbo.gov](mailto:communications@cbo.gov).



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January 2026