Chapter 6:

Substance Use Disorder and Maternal and Infant Health

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Key Points

- Substance use can have serious consequences for maternal and infant health, including preterm labor and complications related to delivery.
- Infants born to women using opioids or other substances may experience neonatal abstinence syndrome (NAS), a postnatal withdrawal syndrome. Infants with NAS are more likely to be delivered preterm, have longer hospital stays and higher readmission rates, and receive care in the neonatal intensive care unit.
- Although pregnant women covered by Medicaid are more likely than pregnant women with other forms of insurance to misuse substances or have substance use disorder (SUD), they are also more likely to have received treatment for their SUD in the past year. Medicaid also covers a disproportionate share (more than 80 percent) of infants with NAS.
- There are many barriers to treatment for pregnant women with SUD. Relatively few pregnant women with SUD seek treatment, in part due to obstacles such as balancing caregiver roles and fear of losing custody of their newborns as a result of their SUD.
- Many specialty SUD treatment facilities do not offer special programming for pregnant women with SUD. Few provide child care services or residential beds for clients' children.
- State Medicaid programs can use multiple authorities, including those under the state plan and waivers, to tailor benefits for pregnant women with SUD and infants with NAS. However, few states are using all of the available authorities to do so.
- Many states are expanding the continuum of services offered to individuals with SUD, including pregnant women; however, states generally do not have a separate SUD benefit for pregnant women. Rather, pregnant women with SUD receive the same benefits as the general Medicaid population.
- State systems are highly fragmented, with no single agency responsible for addressing the range of needs of pregnant and postpartum women with SUD. In addition to health services, these needs include food, housing, and transportation. As such, providing comprehensive services to pregnant women with SUD requires connecting women and their children with multiple state agencies.
- New models of care that seek to improve access to well-coordinated, evidenced-based care for pregnant women and their children are currently being tested. These models include the Maternal Opioid Misuse model and the Integrated Care for Kids model.

CHAPTER 6: Substance Use Disorder and Maternal and Infant Health

High rates of substance use disorder (SUD), including opioid use disorder (OUD), are taking their toll on families and communities across the United States. For the first time in nearly two decades, however, the rate of drug overdose deaths in the United States is beginning to drop, declining by 4.1 percent between 2017 and 2018. The largest declines are related to opioids that are commonly available by prescription, such as oxycodone and hydrocodone, and there are slight declines in overdose deaths due to heroin as well. However, the rate of overdose deaths for synthetic opioids such as fentanyl, psychostimulants, including methamphetamines, and cocaine continue to rise. Specifically, in 2018 the rate of drug overdose deaths involving synthetic opioids other than methadone increased by 10 percent over the previous year.[1] From 2012 to 2018, the rate of drug overdose deaths involving cocaine more than tripled and the rate for deaths involving psychostimulants, such as methamphetamines, increased nearly five-fold. Some drug overdose deaths may involve multiple drugs (Hedegaard et al. 2020).[2]

MACPAC has previously reported on the opioid epidemic and its disproportionate effect on the Medicaid program (MACPAC 2017). Medicaid beneficiaries have a higher rate of SUD than privately insured individuals, and they also receive treatment at higher rates. In 2018, Medicaid beneficiaries were more than twice as likely as individuals with private coverage to report illicit drug dependence or abuse.[3] At the same time, they were nearly three times more likely than individuals with private coverage to be in treatment (SHADAC 2020).[4] Even so, only about 12.1 percent of Medicaid beneficiaries with any SUD indicated that they were currently receiving treatment (SHADAC 2020).

State Medicaid programs are responding to the opioid epidemic by providing clinical services, including residential treatment and medications to treat opioid use disorder (MOUD), and non-clinical recovery supports, such as peer supports, skills training and development, and case management services. Gaps in coverage, however, persist in many states (MACPAC 2019a, 2018a).

In this chapter, the Commission focuses specifically on the effects of SUD on pregnant and postpartum women and their infants. Substance use can have serious consequences for both maternal and infant health. Pregnant and postpartum women who misuse substances are at risk for poor maternal outcomes, including preterm labor and complications related to delivery (CMS 2019a). Although our lens is broad, some of the policy responses discussed in this chapter are specific to misuse of opioids and may not be relevant to the misuse of other substances. Where possible, we note whether the data or program designs are broadly relevant to SUD or targeted to the opioid epidemic.

Although pregnant women covered by Medicaid are more likely than pregnant women with other forms of insurance to misuse substances or have SUD, they are also more likely to have ever received treatment for their SUDs. A small percentage of beneficiaries with SUD, however, are receiving treatment; from 2015 to 2018, only one in five (19.9 percent) pregnant women enrolled in Medicaid with SUD received alcohol or drug treatment in a health care setting in the previous year (SHADAC 2020). Barriers to treatment include stigma both within and outside the health care system, fear of punitive repercussions, and limited access to providers, as few SUD treatment facilities offer specialized programming for this population (SAMHSA 2019, GAO 2017). In some regions, a high percentage of providers do not participate in Medicaid and accept only cash payments (Patrick 2020a).

High rates of SUD have also affected the lives of infants and children covered by Medicaid. Infants born to women using opioids or other substances

may experience neonatal abstinence syndrome (NAS), which is a drug withdrawal syndrome that occurs in infants after they are exposed to certain drugs in utero. Notably, use of medications to treat OUD can also result in NAS; however, such medications can prevent more severe neonatal complications, such as preterm birth. Given that Medicaid pays for 43 percent of all U.S. births, it is not surprising that NAS disproportionately affects the Medicaid program; over 80 percent of infants with NAS are covered by Medicaid (Martin et al. 2018, Winkelman et al. 2018).[5] In addition, emerging evidence suggests that rising rates of overdose deaths have coincided with an increase in the number of children entering foster care (ASPE 2018). Low-income children currently or formerly served by the child welfare system are generally eligible for Medicaid (MACPAC 2015).

This chapter begins by describing the prevalence of SUD among pregnant women enrolled in Medicaid and the rates at which these women seek treatment. Next, we discuss the continuum of care for pregnant and postpartum women with SUD, the extent to which state Medicaid agencies cover SUD treatment services, and the availability of specialty SUD treatment for this population. The chapter then describes the incidence of NAS among Medicaid-covered infants as well as emerging models of care to treat infants with NAS. Then the chapter outlines the various Medicaid authorities that can be used to provide treatment services to pregnant women with SUD and infants with NAS, including summaries of relevant federal guidance and examples from selected states.

State Medicaid programs can use multiple authorities, including those under the state plan and waivers, to tailor benefits for pregnant women with SUD and infants with NAS. However, few states are using all the authorities available to them to do so. Moreover, in many states, additional work is needed to engage providers to treat pregnant women with SUD and ensure adoption of evidence-based care for infants with NAS. New models of care are being piloted that seek to improve access to well-coordinated, evidence-based care for pregnant women and their children.

Although many states are expanding the continuum of services offered to individuals with SUD, including pregnant women, state systems remain highly fragmented. This is especially problematic for pregnant women who face unique obstacles when seeking treatment, including balancing caregiver roles with seeking treatment and fear of losing custody of their newborns, and possibly other children, as a result of their SUD. The chapter concludes by describing the roles of the criminal justice and child welfare systems, as well as other social service agencies, in the lives of pregnant women with SUD. Two new models of care that seek to reduce this fragmentation and improve access to care for pregnant women with SUD and their infants are also discussed.

SUD among Pregnant Women

Women of childbearing age may be more susceptible than the general population to substance use dependence and disorders for several reasons. Opioids are widely prescribed to women of childbearing age, with over one-third of Medicaid-enrolled women filling an opioid prescription annually (Ailes et al. 2015). Of women reporting non-medical use of a prescription opioid, pregnant women are more likely to receive an opioid from a doctor (46 percent) than non-pregnant women (28 percent) (Kozhimannil et al. 2017). Women also develop SUD and health-related problems in less time than do men (SAMHSA 2009).

Below, we describe the prevalence of SUD among pregnant women and the rates at which they receive treatment, comparing, where possible, the experience of pregnant women enrolled in Medicaid to those with other sources of coverage. This analysis is based on the National Survey on Drug Use and Health (NSDUH), a federal survey conducted annually in all 50 states and the District of Columbia.[6] Our analysis, conducted by the State Health Access Data Assistance Center (SHADAC)

under contract to MACPAC, combined data from 2015 to 2018 (SHADAC 2020). Due to issues with sample size, we are unable to report on additional demographic information (e.g., race and ethnicity, age), state-level estimates, or information on the settings in which women receive treatment. We are also unable to look at treatment rates for specific SUDs, such as alcohol, amphetamine, cocaine, or opioids.[7]

From 2015 to 2018, pregnant women enrolled in Medicaid were more likely to abuse or have a substance use dependency in the previous year than pregnant women with other sources of coverage (Table 6-1). Pregnant women enrolled in Medicaid were more likely to report ever using methamphetamines. They were also more likely to have ever used heroin and misused a prescription pain reliever. However, pregnant women enrolled in Medicaid were less likely to report alcohol use in the previous year than pregnant women with other forms of coverage.

TABLE 6-1. Substance Misuse, Abuse, and Dependence in Pregnant Women Age 12–44, by Insurance Status, 2015–2018

Type of use	Number of pregnant women age 12–44	Percentage of all pregnant women age 12–44	Percentage of pregnant women age 12–44 in each coverage category	
			Medicaid	All other forms of coverage
Illicit drug dependence, past year	63,478	2.7%	4.5%	1.6%*
Illicit drug dependence or abuse, past year	77,560	3.4	5.7	1.9*
Illicit drug or alcohol abuse, past year	61,714	2.7	2.9	2.6
Pain reliever dependence, past year	17,895	0.8	–	–
Misused pain reliever, past 30 days	25,881	1.1	–	–
Ever misused pain reliever	273,161	11.8	12.0	11.8
Misused OxyContin, past year	19,736	0.9	–	–
Ever used heroin	50,137	2.2	3.6	–
Ever used heroin and ever misused pain reliever	43,437	1.9	3.2	–
Ever used methamphetamines	112,727	4.9	7.2	3.5*
Methamphetamine use, past year	22,611	1.0	1.9	–
Alcohol use, past year	1,498,081	64.7	52.9	72.7*
Alcohol dependence or abuse, past year	119,795	5.2	5.7	4.8

Notes: We used the following hierarchy to assign individuals with multiple coverage sources to a primary source: Medicare, private, Medicaid, other, or uninsured. Coverage source is defined as of the time of the most recent survey interview. All other forms of coverage include Medicare, private insurance (excluding plans that pay for only one type of service, such as accident coverage or dental care), military, or other types of insurance.

* Difference from Medicaid is statistically significant at the 0.05 percent level.

– Dash indicates that the estimate is based on too small a sample or is too unstable to present.

Source: SHADAC 2020.

Obtaining SUD treatment services during pregnancy increases the number of prenatal visits and improves birth outcomes. Delaying prenatal care and SUD treatment, however, can lead to worse outcomes for both mother and baby (Mee-Lee et al. 2013). Women may be reluctant to seek prenatal care or disclose drug use to providers for many reasons, including the fear of severe consequences, such as losing their jobs, social services interventions, possible loss of child custody, and in some instances, criminal charges for abuse and neglect (GAO 2017, Mee-Lee et al. 2013).

Pregnant women with SUD enrolled in Medicaid are more likely to have received treatment for their SUD than pregnant women with SUD with other forms of coverage. Treatment services, however, remain substantially underutilized. From 2015 to 2018, one in five (19.9 percent) pregnant women with SUD enrolled in Medicaid received alcohol or drug treatment in a health care setting in the previous year (Table 6-2).[8]

TABLE 6-2. Treatment for Substance Use Disorder among Pregnant Women, Age 12–44 with Past Year Substance Use Disorder, by Medicaid and Other Insurance Coverage, 2015–2018

Treatment characteristics	Percentage of pregnant women age 12–44 with past year substance use disorder	Percentage in each coverage category	
		Medicaid	All other forms of coverage
Ever received alcohol or drug treatment	29.0%	37.0%	21.8%
Received alcohol or drug treatment in a health care setting, past year	11.9	19.9	–*

Notes: We used the following hierarchy to assign individuals with multiple coverage sources to a primary source: Medicare, private, Medicaid, other, or uninsured. Coverage source is defined as of the time of the most recent survey interview. All other forms of coverage include Medicare, private insurance (excluding plans that pay for only one type of service, such as accident coverage or dental care), military, or other types of insurance. Health care settings include: an inpatient hospital overnight; an outpatient drug or alcohol rehabilitation facility; an outpatient mental health center; an emergency room; a private doctor's office.

* Difference from Medicaid is statistically significant at the 0.05 percent level.

– Dash indicates that the estimate is based on too small a sample or is too unstable to present.

Source: SHADAC 2020.

Medicaid Coverage of SUD Treatment Services

A continuum of care includes early identification of substance use using tools such as screening, brief intervention, and referral to treatment (SBIRT) which may be used during prenatal visits. Use of such tools can ensure women are referred to appropriate treatment services. Because the severity of an individual's SUD influences the type and intensity of services needed, providing access to SUD treatment services along a continuum of care that offers progressive clinical services, ranging from residential treatment to outpatient treatment with MOUD, and that includes non-clinical supports, such as recovery services and case management services, is important for effective treatment and recovery (Box 6-1) (MACPAC 2019a, 2018a).

Generally, states do not have a separate SUD benefit for pregnant women; rather, pregnant women with SUD receive the same benefits as the general Medicaid population. As discussed later in this chapter, a minority of states have taken additional steps to tailor SUD treatment benefits for pregnant and postpartum beneficiaries. In addition, new models of care are being tested in a few states to improve access to care for these populations.

BOX 6-1. Components of the Substance Use Disorder Continuum of Care

Clinical services. As defined by the American Society of Addiction Medicine, clinical services include early intervention, outpatient services, intensive outpatient services, partial hospitalization, residential and inpatient treatment at varying intensities, and medications to treat opioid use disorder. Substance use disorder (SUD) treatment also should be offered in non-specialty settings such as primary care (Mee-Lee et al. 2013).

Residential treatment may be more common among pregnant women when compared to the general population. For postpartum women who are not in residential treatment, intensive outpatient treatment appears to have higher completion rates than traditional outpatient services. Pregnant women who benefit from outpatient care tend to have some stability in their lives, including housing and employment (SAMHSA 2009).

Recovery support services. These are non-clinical services that address psychosocial factors in an individual's environment and provide emotional and practical support to maintain remission from a behavioral health condition. They include peer support, supportive housing, supported employment, and skills training and development.

Case management. The Substance Abuse and Mental Health Services Administration describes case management for beneficiaries with SUD as a coordinated approach to the delivery of physical health, SUD, mental health, and social services (SAMHSA 2015). With the wide array of services that pregnant women may need, comprehensive case management that involves medical and social case management is an essential component for women in treatment (CMHS National GAINS Center 2007).

Case management may be also be needed to help coordinate transitions from more intensive to less intensive treatment settings (SAMHSA 2015). Such transitions tend to be challenging for all individuals; however, pregnant and postpartum women are more likely to encounter obstacles across the continuum of care as a result of caregiver roles and gender expectations. For example, after pregnancy, women often assume many caregiver roles, and these roles can interfere with treatment engagement and regular attendance at treatment services. Evidence suggests that women will continue services if they stay within the same agency or if an effort is made to connect them to the new service prior to the transition (SAMHSA 2009).

As of 2018, MACPAC found that most states have gaps in SUD coverage, covering on average six of the nine levels of care described by the American Society of Addiction Medicine (ASAM), with the largest gaps in coverage for partial hospitalization and residential treatment. (As discussed later in this chapter, many states are increasingly addressing these gaps in coverage through SUD demonstration waivers under Section 1115 of the Social Security Act (the Act)). Forty-nine states and the District of Columbia covered some form of outpatient treatment for SUD; all states covered some form of buprenorphine (a medication used to address OUD); and the majority of states (41 states and the District of Columbia) also paid for opioid treatment program (OTP) services, which is the only setting in which methadone can be dispensed to treat OUD.[9] Fewer states cover partial hospitalization and residential treatment. In addition to coverage of clinical services, many states cover recovery support services such as peer support (38 states) and comprehensive community supports (29 states).

However, fewer states offer services such as skills training and development (15 states), supported employment (13 states), or supportive housing (4 states) for beneficiaries with SUD (Appendix 6A) (MACPAC 2019a, 2019b, 2018a).

Availability of SUD Treatment for Pregnant Women

Access to treatment for pregnant women depends upon having a sufficient supply of appropriate providers. Generally, maternity providers, including obstetrician-gynecologists and certified nurse-midwives, are not trained in addiction medicine. Similarly, SUD treatment providers are rarely equipped to provide prenatal care. There are a limited number of treatment facilities with programs tailored to pregnant or postpartum women (Moore et al. 2018). In 2018, less than 25 percent of specialty SUD treatment facilities reported offering special treatment programs for these populations (SAMHSA 2018). Access to services is also affected by provider participation in Medicaid, the distribution of providers, state coverage policies, including those related to utilization management (e.g., prior authorization and quantitative treatment limits), and providers' responses to those policies.

Below, we describe the availability of specialized SUD treatment for pregnant or postpartum women in various settings and states, including outpatient, intensive outpatient, partial hospitalization, and residential treatment. We also examine specialty SUD treatment facilities that report offering specialized programming for pregnant or postpartum women, including the extent to which they participate in Medicaid, the degree to which they offer child care for their clients' children or residential beds for clients' children, and whether these facilities offer MOUD.

Provider supply

Few specialty SUD treatment facilities are able to meet the unique needs of pregnant and postpartum women. In 2018, less than one-quarter (23 percent) of specialty SUD treatment programs in the U.S. offered specialized programming for pregnant or postpartum women.[10] Only 20 percent of SUD treatment facilities offered both outpatient treatment and specialized programming for this group. A smaller proportion of facilities offered special programming as well as intensive outpatient treatment (11 percent); partial hospitalization (3 percent); long-term residential treatment (4 percent); or short-term residential treatment (3 percent). In some states, there are no facilities offering partial hospitalization and specialized programming for pregnant or postpartum women (SAMHSA 2019).

For pregnant or postpartum women with SUD, access to providers offering MOUD is also limited. Eight percent of specialty SUD facilities offer both specialized programming for pregnant or postpartum women and at least one of the three medications approved by the U.S. Food and Drug Administration (FDA) for treating OUD (methadone, buprenorphine, or naltrexone). Moreover, as of December 2019, only about 6 percent of all active physicians, nurse practitioners, and physician assistants had obtained a waiver to prescribe these medications (KFF 2020). Of these, 74 percent were certified to prescribe buprenorphine to up to 30 patients, 18 percent were certified to prescribe to up to 100 patients, and 7 percent were certified to prescribe to up to 275 patients. It is worth noting that practitioners generally prescribe well under their patient limits (Varghese et al. 2019, Thomas et al. 2017).

Congress has taken a number of steps to address concerns about limited treatment capacity. First, the Comprehensive Addiction and Recovery Act of 2016 (CARA, P.L. 114-198) expanded prescribing authority for buprenorphine to nurse practitioners and physician assistants. This action helped expand access to buprenorphine for Medicaid beneficiaries

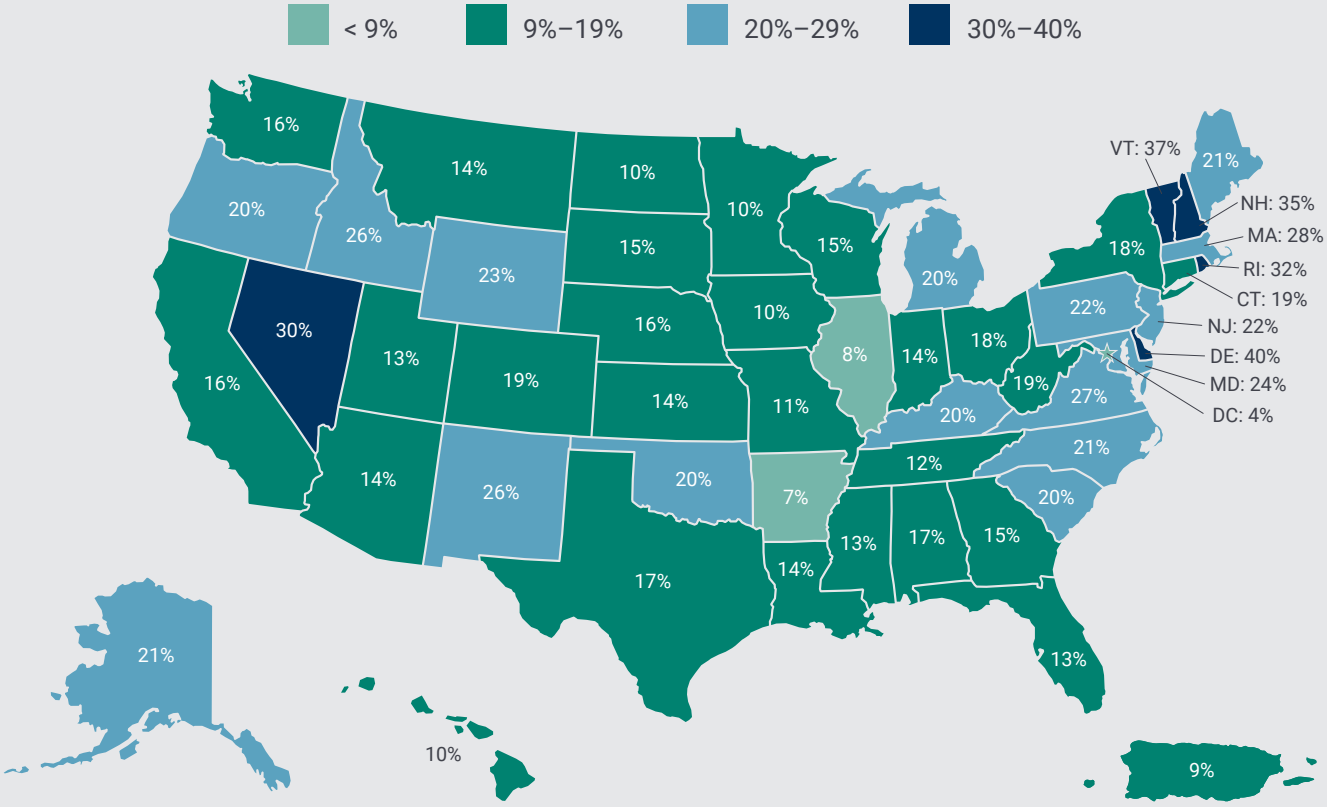
(Johnson et al. 2019).[11] In 2018, the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (SUPPORT Act, P.L. 115-271) expanded the list of eligible practitioners to include clinical nurse specialists, certified nurse-midwives, and certified registered nurse anesthetists, allowing them to prescribe through October 2023. However, few practitioners have obtained a waiver to prescribe buprenorphine under this SUPPORT Act provision; as of December 2019, waivers had been obtained by a total of 18 clinical nurse specialists, 21 certified nurse-midwives, and 1 certified registered nurse anesthetist (Dugan 2020).

Provider participation in Medicaid

Access to treatment is also affected by low SUD provider participation in Medicaid. In 2018, fewer than one in five (17 percent) specialty SUD facilities that reported accepting Medicaid offered specialized treatment for pregnant or postpartum women. Medicaid participation among such facilities varies greatly by state, ranging from 4 percent in the District of Columbia to 40 percent in Delaware (Figure 6-1).

Pregnant and postpartum beneficiaries have limited access to specialized SUD treatment at certain levels of care. Approximately 15 percent

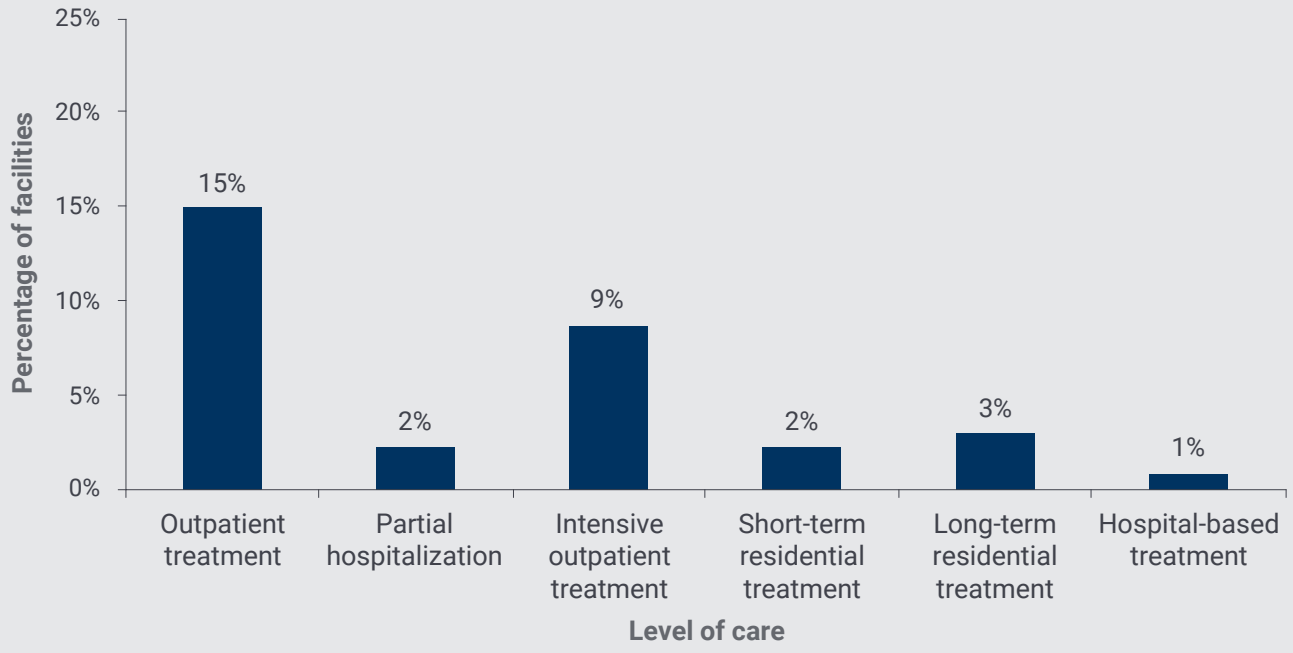
FIGURE 6-1. Percentage of Substance Use Disorder Treatment Facilities Offering Specialized Programming for Pregnant or Postpartum Women and Accepting Medicaid, 2018



Source: MACPAC, 2019, analysis of SAMHSA 2019.

of specialty SUD treatment facilities offer special programming for pregnant or postpartum women, accept Medicaid, and provide outpatient treatment services. But providers of more intensive services are much less likely to be available to pregnant or postpartum Medicaid beneficiaries (Figure 6-2).[12] Providers offering special programming for pregnant or postpartum women, as well as partial hospitalization and different intensities of residential services, accept Medicaid at a lower rate overall.

FIGURE 6-2. Percentage of Substance Use Treatment Providers Offering Specialized Services for Pregnant or Postpartum Women and Accepting Medicaid by Level of Care, 2018



Source: MACPAC, 2019, analysis of SAMHSA 2019.

Provision of services for clients' children. Women are more likely to enter, participate in, and stay in SUD treatment, and maintain abstinence, if they can have their children with them (SAMHSA 2016, CMHS National GAINS Center 2007). However, in 2018, 6 percent of SUD treatment facilities both provided child care for patients' children and accepted Medicaid. The rate varies considerably by state; in Delaware and the District of Columbia, no facilities accepted Medicaid and provided child care. In comparison, 19 percent of facilities in Wyoming did both. Moreover, only 2 percent of SUD treatment facilities provided residential beds for patients' children and accepted Medicaid. In six states and the District of Columbia, there are no specialty SUD treatment facilities that did both (SAMHSA 2019).[13]

Regulatory requirements may affect the ability of SUD treatment facilities to accommodate their patients' children. For example, these facilities may need to be separately licensed to provide child care services (Mee-Lee et al. 2013).

Access to SUD treatment in other settings. Pregnant women with OUD may receive medication as a part of outpatient treatment for their SUD by an office-based provider, such as a primary care physician or obstetrician-gynecologist; this is the standard of care and is recommended over medically supervised withdrawal (ACOG 2017,

Mee-Lee et al. 2013). Such treatment can stabilize the pregnant woman and protect the fetus from episodes of withdrawal. When initiating treatment with MOUD, providers must counsel the woman regarding NAS and ensure connections to prenatal care (MACPAC 2017).[14]

Obstetric providers may provide opioid treatment during pregnancy, but the current number of these physicians currently prescribing buprenorphine to pregnant women enrolled in Medicaid is unknown. A study from 2015 found that 1 percent of obstetrician-gynecologists had obtained the required certification to prescribe buprenorphine (Rosenblatt et al. 2015). Another study using Medicaid claims data from Pennsylvania found that 5 percent of pregnant women with OUD who received MOUD obtained their buprenorphine prescriptions from an obstetrician-gynecologist; in contrast, 63 percent received prescriptions from primary care physicians and 18 percent received prescriptions from psychiatrists or behavioral health providers (Hollander et al. 2019).

Other providers, including community health centers, play an important role in the provision of SUD treatment to Medicaid beneficiaries. In 2018, community health centers served one in five Medicaid beneficiaries. While these facilities generally provide primary care, a growing number of community health centers are providing behavioral health services. For example, in 2018 these health centers performed SBIRT services for more than 1 million patients; and nearly 5,000 prescribers employed by community health centers are authorized to prescribe MOUD (NACHC 2020).

Neonatal Abstinence Syndrome

NAS is a postnatal withdrawal syndrome that most commonly occurs after exposure to an opioid. NAS typically manifests in the first few days of life with symptoms such as difficulty with mobility and flexing; inability to control heart rate, temperature, and other autonomic functions; irritability; poor sucking reflex; impaired weight gain; and, in some cases, seizures. NAS is also an expected outcome of MOUD, but the use of MOUD improves other neonatal outcomes, such as reducing the risk of preterm birth (Patrick et al. 2015, Tolia et al. 2015). Nationally, approximately one infant is born every 15 minutes with opioid withdrawal (Patrick 2020a).

Not much is known about the long-term effects of NAS (Kocherlakota 2014). In one study of mothers and their infants in the Pennsylvania Medicaid program, infants diagnosed with NAS had a probability of a diagnosis of a pediatric complex chronic condition (e.g., cardiovascular, neurologic or neuromuscular condition) of 24.2 percent (Jarlenski et al. 2020).[15] A few observational studies have not found substantial differences in cognitive development between children (up to age five) exposed to methadone in utero and control groups. It has been suggested, however, that preventive interventions during early developmental years are likely to be beneficial for the infant and mother as well as other caregivers (ACOG 2017).

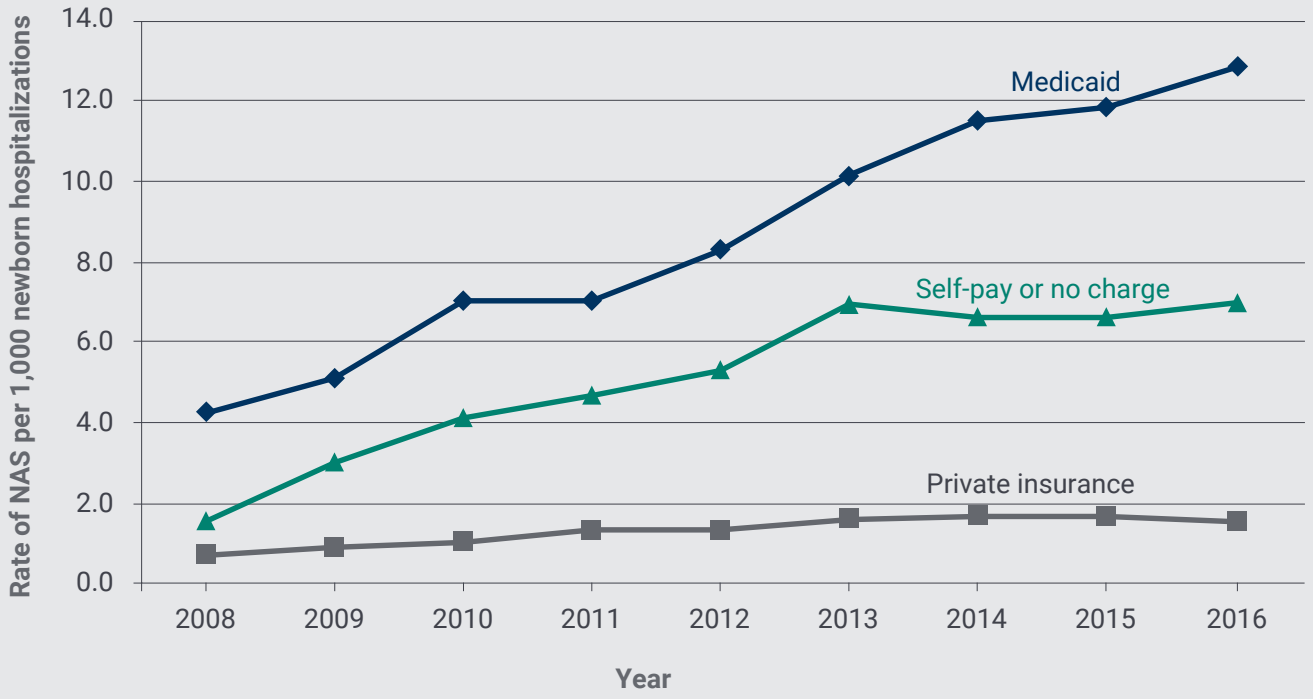
Infants with NAS are more likely to be delivered preterm, have longer hospital stays, higher readmission rates, and receive care in the neonatal intensive care unit (NICU) (Winkelman et al. 2018, Patrick et al. 2015). As such, the average hospital costs for infants with NAS is higher than for infants without NAS: between 2011 and 2014, the mean hospital cost for an infant with NAS was $19,340, compared to $3,700 for infants without NAS. In 2014, Medicaid hospital costs associated with NAS were estimated at $462 million, accounting for 6.7 percent of all birth-related hospital costs paid for by Medicaid. Between 2004 and 2014, NAS resulted in approximately $2.0 billion in additional costs to Medicaid (Winkelman et al. 2018).

Rates of NAS in Medicaid

Since 2004, the incidence of NAS, the share of NAS births covered by Medicaid, and associated hospital costs have all increased. The incidence of NAS has quadrupled since 2004. In 2016, 83 percent

of NAS-related births were paid for by Medicaid, an increase from 2004 when Medicaid covered 74 percent (Strahan et al. 2019, Winkelman et al. 2018). Compared to private insurance or those who pay cash, Medicaid pays for NAS at a much higher rate—13 per 1,000 newborn hospitalizations in 2016 (AHRQ 2019) (Figure 6-3).

FIGURE 6-3. Rate of Neonatal Abstinence Syndrome per 1,000 Newborn Hospitalizations by Expected Payer, 2008–2016



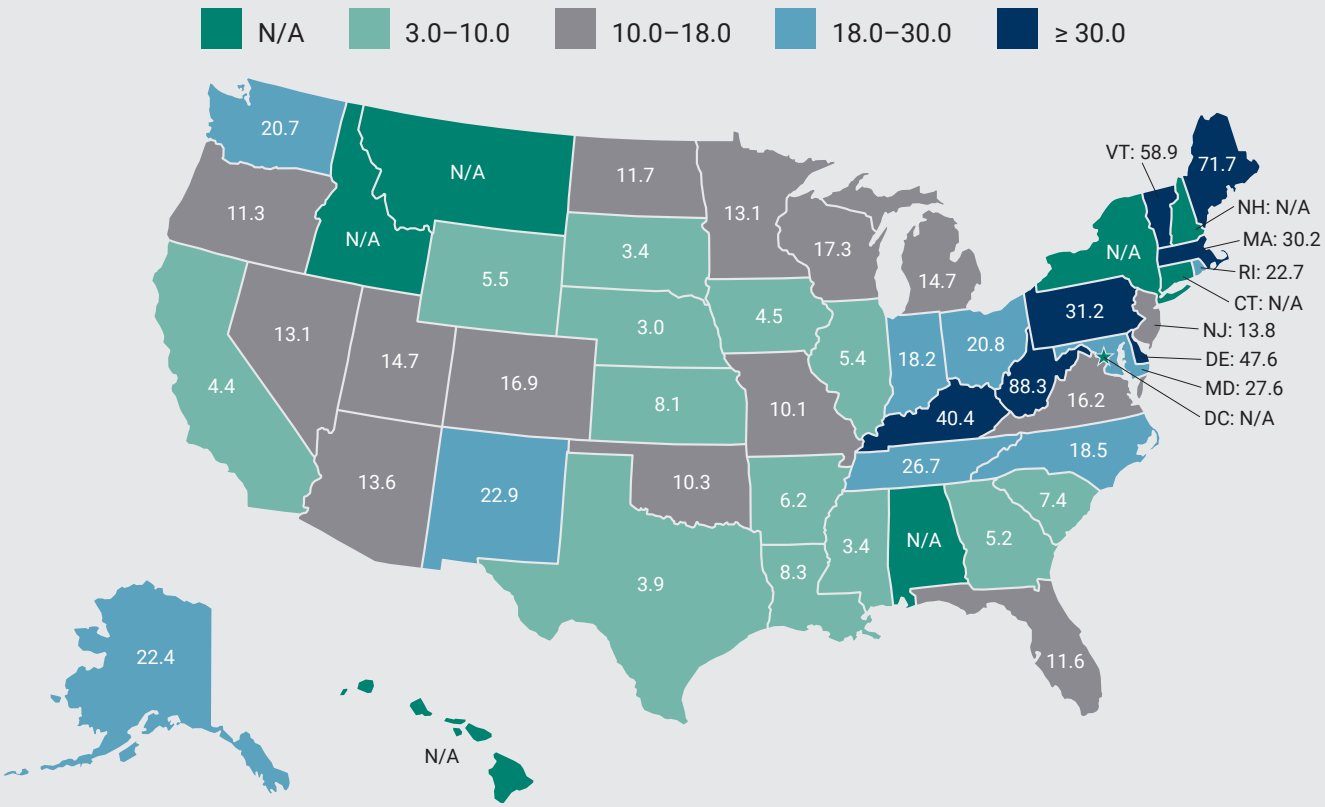
Notes: NAS is neonatal abstinence syndrome.

Source: AHRQ 2019.

Rates of NAS and the number of NAS births paid for by state Medicaid programs vary by state. In 2017, 3 babies were born with NAS per 1,000 hospital births in Nebraska, while 88 babies were born with NAS per 1,000 hospital births in West Virginia (Figure 6-4). Medicaid agencies, however, may not receive complete information on the incidence of NAS because the condition is not always reflected in hospital billing and coding (Becker 2020a, Patrick 2020a). Some states, such as Florida, Georgia, Kentucky, and Tennessee, have sought to increase data accuracy and timeliness by making NAS a reportable condition; West Virginia is also considering doing so (Becker 2020a, Ko et al. 2016). Other states have not done so due to concerns that reporting would foster distrust and harm the provider-patient relationship (ACOG 2011). Such fears are well founded. In 2018, 44 states prosecuted women for drug use during pregnancy (Moore et al. 2018). Twenty-three states and the District of Columbia categorize prenatal drug use as child abuse or neglect, and three states cite substance use during pregnancy as grounds for civil commitment. In addition, 25 states and the District of Columbia require providers to report suspected prenatal drug use, and 8 states require testing for

prenatal drug exposure if providers suspect drug use (Guttmacher Institute 2020). In one study of births in eight states, policies that criminalized substance use during pregnancy, or considered it grounds for civil commitment or child abuse or neglect, were associated with greater rates of NAS in the year after enactment and afterwards. Policies requiring reporting of suspected prenatal substance use, however, were not associated with rates of NAS (Faherty et al. 2019).

FIGURE 6-4. Rate of Neonatal Abstinence Syndrome per 1,000 Newborn Hospitalizations, Medicaid, 2017



Notes: N/A indicates no state-level data are available for Alabama, Connecticut, District of Columbia, Hawaii, Idaho, Montana, New Hampshire, and New York.

Source: AHRQ 2019.

Treatment of neonatal abstinence syndrome

There is no national standard of care for infants with NAS. Many of the tools used for screening and diagnosis were developed in the 1970s for full-term, heroin-exposed infants and have not been updated recently. In addition, these tools may not be well suited for infants exposed to other substances. As such, there is a lack of agreement on how to use screening tools in various settings and on the threshold for diagnosis (Patrick 2020a).

Emerging models of care for infants with NAS. The traditional model of care for infants with NAS is to separate the mother and child and place the infant in the NICU. Emerging models of care keep the mother and infant together outside of the NICU, with treatment being more inclusive of the

mother (Patrick 2020a). Although care protocols are not standardized, non-pharmacological care is recommended as the first option for mild and moderate signs of NAS, managing the condition by rooming-in (keeping the mother and infant together in a low-stimulus setting, such as a private hospital room) and monitoring with a standardized protocol for more severe symptoms (SAMHSA 2018). Rooming-in allows for a quieter, less disruptive environment; it may decrease length of treatment and length of hospital stay (Sanlorenzo et al. 2018). Other types of non-pharmacological care include demand feeding, avoidance of waking a sleeping infant, swaddling, continuous minimal stimulation, skin-to-skin contact, gentle rocking, and therapies such as music or massage therapy (Kocherlakota 2014). Breastfeeding is also encouraged, if appropriate, because evidence suggests that breastfeeding decreases NAS severity and length of hospital stay (Patrick 2020a).

Treatment with medications may be necessary for infants with severe NAS; there are no clinically agreed upon standards for pharmacological care, but treating with an opioid is generally recommended (Kocherlakota 2014). Morphine is the most commonly used medication, but evidence is emerging that buprenorphine may be a better option for infants (Kraft et al. 2017). Delays in the administration of necessary pharmacological treatment have been associated with higher morbidity and longer hospital stays (Kocherlakota 2014).

Limited adoption of emerging models of care for NAS. Research suggests that many hospitals have not adopted recommended approaches, such as reducing separation of mother and infant, as part of routine care (Patrick 2020a, Moore et al. 2018). The precise reason for slow adoption, however, is unclear and may be due in part to limited physical capacity to care for infants with NAS, who require frequent, personalized attention. It can be difficult to find spaces with low levels of stimulation where the mother and infant can stay together within a hospital setting (GAO 2017). Lack of funding may also be a contributing factor (GAO 2017, 2015).

Case management is also necessary to ensure effective care for infants with NAS and their mothers (CMS 2018a). However, there may be limited coordination of care for mothers and babies throughout the entire continuum of care, including follow-up care after discharge (GAO 2017). For example, in one study of Medicaid-enrolled children in Pennsylvania, children with in utero opioid exposure were less likely to attend the recommended number of well-child visits from birth through 15 months, at 42 percent, compared to 56 percent for children with neither in utero opioid nor tobacco exposure (Jarlenski et al. 2020).

Medicaid Authorities for SUD Services and Treatment of NAS

Numerous Medicaid authorities, including the state plan, waivers, and other demonstration programs, can be used to provide SUD treatment and recovery support services to pregnant women with SUD as well as specialized services for infants with NAS. The Centers for Medicare & Medicaid Services (CMS) has issued guidance related to the treatment of NAS in newborns and the role of the early and periodic screening, diagnostic, and treatment (EPSDT) benefit. Below we describe these and other Medicaid authorities and, where relevant, provide examples of how states are using these authorities to tailor benefits for pregnant women with SUD and infants with NAS.

State plan

States that pay for clinical SUD treatment or recovery support services using Medicaid state plan authority have several options to tailor services: the state plan rehabilitative services option, the health home state plan option, the Section 1915(i) state plan option, and a new state plan option, established by the SUPPORT Act, to pay for residential pediatric recovery centers.

State plan rehabilitative services option. Authorized under Section 1905(a)(13) of the

Act, this option allows states to pay for discrete rehabilitative services for beneficiaries with SUD, such as intensive outpatient treatment, residential treatment, supported employment, and skills training and development. Most states use this option to provide clinical SUD treatment and certain recovery support services, such as peer support.

A few states offer additional benefits to pregnant women with SUD that they do not offer to other Medicaid beneficiaries with SUD. For example, prior to implementing a Section 1115 SUD demonstration, California covered only outpatient SUD services, OTP services, and naltrexone services; however, additional services, including intensive outpatient care and perinatal residential services, were available under the Medicaid state plan for pregnant and postpartum women (CMS 2016a). Prior to July 1, 2018, South Dakota only offered SUD treatment to pregnant women (DSS 2018). Various SUD treatment services, including intensive outpatient and residential treatment, are now available to the general Medicaid population in South Dakota (CMS 2019b).

Some states are using state plan authority to specifically address the needs of infants with NAS. For example, West Virginia received approval of its state plan amendment (SPA) in 2018, making it possible for Lily's Place, a 12-bed, community-based residential treatment facility for infants with NAS, to be recognized as its own model of care and receive Medicaid funds through a prospective bundled payment (Box 6-2). As the only non-hospital based NAS treatment center in the state, Lily's Place provides medication management for withdrawal as well as a comprehensive focus on the mother and child and family supports (Becker 2020a). The payment bundle includes NAS treatment services provided by registered nurses, licensed counselors, and social workers (Normile and Hanlon 2018).

BOX 6-2. West Virginia's State Plan Amendment on Neonatal Abstinence Syndrome Treatment Services

West Virginia received approval for a state plan amendment (SPA) that defined both the services and rate methodology for neonatal abstinence syndrome (NAS) treatment services. Approved early in 2018, the SPA was retroactive to October 1, 2017.

NAS services are paid for via an all-inclusive prospective bundled payment based on the daily treatment of Medicaid beneficiaries. Direct services include payments to providers of:

- nursing services;
- targeted case management;
- evaluation and assessment;
- service planning;
- supportive counseling; and
- all non-physician early and periodic screening, diagnostic, and treatment services.

Additional indirect services for other salaries, administration, and supplies are also included. Room and board costs and physician treatment services are not included in payment rates (CMS 2018b).

Health home state plan option. States may choose to establish health homes as a state plan option under Section 2703 of the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended, Section 1945 of the Act). Health homes integrate and coordinate all primary, acute, behavioral health, and long-term services and supports to treat the whole person. States use this approach to pay for clinical, as well as recovery support services via bundled payments to health homes that coordinate care for beneficiaries with chronic conditions, including SUD. As of September 2018, 22 states had active health homes, of which 13 targeted beneficiaries with SUD (CMS 2018c). As discussed later in this chapter, some states are further tailoring their health homes to address the needs of pregnant women with SUD.

Section 1915(i). Section 1915(i) of the Act allows states to provide home- and community-based services (HCBS) under the state plan without obtaining a waiver, including for pregnant women.[16] Like the Section 1915(c) waiver, Section 1915(i) allows states to design service packages targeted to people with specific needs, including special services for those who have developmental disabilities, physical disabilities, mental illness, or SUD. States may offer benefits to a specific age group without regard to comparability of services for those who do not receive the Section 1915(i) services, although they must abide by the statewideness rule dictating that state Medicaid programs cannot exclude enrollees or providers because of where they live or work in the state. Unlike Section 1915(c) waivers, the Section 1915(i) SPA allows states to set the qualifying level for HCBS at an institutional level of care or lower (MACPAC 2016).

Under Section 1915(i) authority, states may offer a variety of HCBS services, such as case management or rehabilitative services, to beneficiaries. However, few states use this authority to pay for recovery support services for beneficiaries with SUD, including pregnant women. As of 2015, 16 states and the District of Columbia had a total of 23 approved Section 1915(i) SPAs, but only 7 targeted adults with behavioral health conditions (ASPE 2016).

Residential pediatric recovery centers. Section 1007 of the SUPPORT Act established a new state plan option to make Medicaid inpatient or outpatient services available to infants with NAS at a residential pediatric recovery center. Infants with NAS are most often treated in inpatient hospital settings, but other facilities that meet current Medicaid requirements can also receive payment for room and board (CMS 2018a). In July 2019, CMS issued guidance summarizing how residential pediatric recovery centers can be used to treat less severe cases of NAS or cases where the infant is not medically stable and ready to go home, but can be safely discharged to this lower level of care (CMS 2019c). As of April 2020, no state has submitted a SPA to pay for residential pediatric recovery centers.

Waivers

States may use several waiver authorities to pay for SUD treatment and supportive services, including those for pregnant women: Section 1115 demonstration waivers, Section 1915(c) waivers, and Section 1915(b) managed care waivers.

Section 1115 demonstration waivers. Beginning in 2016, more states began to pay for SUD treatment services through Section 1115 SUD demonstrations, using these waivers to reduce gaps in the clinical continuum of care, particularly for residential and inpatient treatment, and to pay for both recovery support services and SUD case management (MACPAC 2018a). As of January 2020, 26 states and the District of Columbia have approved demonstrations and another 5 states have waiver applications pending CMS review (MACPAC 2020).

Under these demonstrations, Medicaid beneficiaries, including pregnant women with SUD, have access to the full continuum of SUD treatment. However, few states are targeting pregnant women with SUD under these demonstrations. Massachusetts is an exception in that it provides

pregnant women specialized services to ensure coordination between acute SUD services, clinical supports, and obstetrical care (Mathematica 2020).

A few states also use Section 1115 authority to extend postpartum coverage, some specifically for women with SUD. (Extending postpartum coverage is discussed further in Chapter 5.) Illinois submitted a Section 1115 waiver on December 31, 2019 to extend coverage for all pregnant women enrolled in Medicaid from 60 days postpartum to one year (HFS 2020). South Carolina received partial approval of its Section 1115 demonstration waiver in December 2019. Although the state requested extending postpartum coverage for all eligible women, CMS only approved an additional 500 slots within the targeted adult group under the Palmetto Pathways to Independence demonstration, which will allow the state to extend postpartum coverage for women in need of SUD treatment (CMS 2019d). Missouri submitted an application to CMS for a new Section 1115 demonstration on February 13, 2020 that proposes to extend SUD and mental health treatment for an additional 12 months after the standard 60-days postpartum period that is currently covered by Medicaid pregnancy-related state plan coverage (MO Healthnet 2020). At the time of writing, Illinois and Missouri's applications were still pending approval with CMS.

Section 1915(c) waivers. Waivers under Section 1915(c) of the Act can be used to provide services that are not available through the state plan to certain beneficiaries who are at risk for institutionalization. Generally, states can use this authority to pay for discrete rehabilitative services such as supported employment and skills training and development for beneficiaries with SUD. However, states can limit HCBS to a specific number of individuals or limit services to a certain region of the state. Nearly all states and the District of Columbia offer services through HCBS waivers; however, few use this authority to provide recovery support services to beneficiaries with SUD.

Section 1915(b) waivers. States use 1915(b) waivers to create a specialized or targeted program that provides a limited set of benefits or services to beneficiaries. For example, Colorado contracts with behavioral health organizations to provide behavioral health services, including recovery support services, to beneficiaries across the state. Colorado's Special Connections program provides a comprehensive range of SUD treatment services for pregnant women and covers treatment services up to 12 months postpartum. Services include case management, group health education with other pregnant women, group substance use counseling with other pregnant women, in-depth risk screening, individual substance use counseling, referral to appropriate aftercare and ongoing support, urine screening and monitoring, and residential services (Mathematica 2020).[17]

North Carolina uses Section 1915(b) authority to provide intensive recovery supports to women with children returning home from SUD treatment programs. These include skills training, social skills training, pre-employment readiness, recovery education, and change readiness (RTI 2019). Virginia also operates a Section 1915(b) waiver, Virginia Medicaid MEDALLION 4.0, which has a high-risk maternity program that includes comprehensive care management and family planning services for women. The fully capitated program is available statewide to pregnant women, infants and children, and provides acute and primary health care services, prescription drug coverage, and behavioral health services for its members (Caminiti and Harrell 2019).

Early and periodic screening, diagnostic, and treatment services

All children under age 21 enrolled in Medicaid are entitled to EPSDT services, which requires states to provide access to any Medicaid-coverable service in any amount that is medically necessary, regardless of whether it is covered in the state plan. EPSDT benefits are intended to discover and treat childhood health conditions before they become serious or disabling. States must inform all Medicaid-eligible families about the benefit, screen

children at reasonable intervals, diagnose and treat any health problems found, and report certain data regarding EPSDT participation annually to CMS. In 2018, CMS issued guidance on identification and treatment of NAS that, among other things, discussed how EPSDT may be used to provide medically necessary services to infants with NAS (Box 6-3) (CMS 2018c).

Under certain circumstances, mothers who are ineligible for Medicaid may receive certain services via EPSDT that are directed at treating and promoting the health of a Medicaid-covered infant with NAS. Services such as counseling a parent on how to care for and interact with their infants, including how to breastfeed an infant with NAS, may be covered if the infant is present and the therapeutic intervention directly benefits the infant. For NAS treatment services to directly benefit the infant, the services must actively involve the infant, be directly related to the infant's individualized needs, and be delivered to the infant and mother jointly. Screening for maternal depression can also be done as part of a well-child visit (CMS 2018a). (Additional discussion of postpartum depression screening can be found in Chapter 5.)

BOX 6-3. Centers for Medicare & Medicaid Services Guidance on Neonatal Abstinence Syndrome, 2018

Guidance issued by the Centers for Medicare & Medicaid Services (CMS) offers possible strategies states may consider in designing Medicaid benefits to diagnose and treat infants with neonatal abstinence syndrome (NAS):

- **Treatment of NAS.** NAS services provided under the state plan must be available statewide and cannot be limited to certain geographic regions in a state. Children under the age of 21 enrolled in Medicaid are entitled to all medically necessary services under the early and periodic screening, diagnostic, and treatment benefit, which provides comprehensive and preventive health services.
- **Coverage for infants in hospital settings.** Potential covered services for infants with NAS include assessments, care planning, swaddling, feeding, and other specialized care. Services can be covered under a variety of Medicaid state plan benefits. Benefit categories can include, but are not limited to, physician and other licensed practitioner services, physical and occupational therapy, speech, hearing and language disorder services, respiratory care services, diagnostic and rehabilitative services, drugs, non-emergency medical transportation, and case management. States can pay for individual services or via bundled payments.
- **Coverage for infants in non-institutional settings.** Room and board is not reimbursed in facilities that do not meet the Medicaid standards for facility-based inpatient settings; however, services delivered in such facilities can be covered and paid for under Section 1905(a) of the Social Security Act as described in the state plan. The potential covered services are the same as those delivered in hospital settings, as described above.

BOX 6-3. (continued)

- **Case management.** Case management is a potential covered service for infants with NAS and their mothers. Case management predelivery, during treatment, and postdischarge can be critical services for providing and maintaining effective care and treatment for infants with NAS. Mothers may also benefit from an assessment of their behavioral health needs and case management services. Such services assist both the infant and the caregiver in gaining access to needed medical, social, educational, and other services.
- **Continued monitoring.** There is currently little data on the long-term effects of in utero exposure to opioids and other substances. While research progresses, home visiting and well-child visits are important monitoring tools for infants with NAS diagnoses (CMS 2018a).

Other Medicaid authorities

Two Medicaid authorities allow states to pay for residential and inpatient SUD treatment for pregnant women: a limited exception to the institutions for mental diseases (IMD) exclusion for services provided to pregnant women outside of an IMD and a time-limited state plan option to pay for residential and inpatient SUD treatment in an IMD.[18] The State Children's Health Insurance Program (CHIP) also requires behavioral health coverage to be provided to all individuals in the program. States can also cover pregnant women and unborn children in CHIP. As of January 2017, 5 states provided CHIP-funded coverage to pregnant women and 16 states provided coverage for unborn children (MACPAC 2018b).

Limited exception to the IMD exclusion for pregnant women. Section 1012 of the SUPPORT Act created a new limited exception to the IMD exclusion for certain pregnant and postpartum women who are eligible for Medicaid on the basis of pregnancy. Specifically, it allows states to claim federal financial participation (FFP) for non-IMD services delivered to women during pregnancy and up to 60 days postpartum who are patients in an IMD for the treatment of SUD. It is important to note that this provision only makes FFP available for items and services provided outside of an IMD.[19] CMS guidance issued in July 2019 encouraged states to implement this provision as quickly as possible to ensure that pregnant and postpartum women with SUD could receive services (CMS 2019e). States must be in compliance by October 1, 2020, with possible exceptions based on state legislative time frames.

State plan option for SUD treatment in an IMD. The SUPPORT Act created a new state plan option to allow states to pay for care for Medicaid beneficiaries age 21–64 with at least one SUD in certain IMD settings. Under this option, FFP is available to pay for services provided in IMD settings for a maximum of 30 days per 12-month period per eligible beneficiary, including pregnant women. States may use this option from October 1, 2019 through September 30, 2023 if they meet certain requirements.[20]

Behavioral health coverage under CHIP. Section 5022 of the SUPPORT Act amends Section 2103(c)(5) of the Act to make behavioral health coverage a required CHIP benefit, effective October 24, 2019. The statute specifically requires states to provide child health and pregnancy-related assistance that includes coverage of mental health services and SUD (CMS 2020a). Guidance from CMS published on March 2, 2020 indicates that states are now required to do the following:

- provide coverage of all the developmental and behavioral health-related screenings and preventive services recommended by the American Academy of Pediatrics Bright Futures periodicity schedule, as well as those with a grade A or B by the U.S. Preventive Services Task Force;
- use age-appropriate, validated screening tools;
- demonstrate that the CHIP benefits are sufficient to treat a broad range of behavioral health symptoms and disorders;
- cover MOUD and tobacco cessation benefits;
- identify a strategy for the use of validated assessment tools and specify tools in use; and
- deliver behavioral health services in a culturally and linguistically appropriate manner regardless of the delivery system (CMS 2020a).

States must submit a CHIP state plan amendment to demonstrate compliance with these new provisions. To obtain an effective date of October 24, 2019, as required under the SUPPORT Act, states must submit their SPAs no later than the end of the state fiscal year that includes this date (CMS 2020a).

The Role of the Criminal Justice System and Child Welfare Agencies in SUD Treatment for Medicaid Beneficiaries

SUD is widely stigmatized, and depending on the substance being used, may involve criminal behavior. For the general population, disclosure of SUD-related information can have serious consequences, including arrest, prosecution, and incarceration (MACPAC 2018c). Like many people with SUD, pregnant women often fear facing stigma from health care providers and the public if they seek care. Pregnant women may also fear that disclosing their SUD to a health care provider, testing positive for SUD, or giving birth to a child with NAS will result in loss of custody of their newborns and possibly other children. Depending on state law or health care provider policy, this may happen even if a woman is undergoing treatment with MOUD, which is considered the standard of care for treating OUD (Guttmacher Institute 2020, CMHS National GAINS Center 2007). In addition, rising rates of overdose deaths have increased the number of children entering foster care (ASPE 2018).

The criminal justice and child welfare systems are often involved when pregnant and postpartum women are initiating SUD treatment. In part, the involvement of these systems occurs because SUD treatment may be court-ordered. However, collaboration between child welfare agencies, the courts, and SUD treatment programs may be limited due to systemic barriers, including those related to data sharing; conflicting agency missions and priorities, including differing views on the perceived value of MOUD; and engaging parents in treatment given potential mistrust of child welfare agencies (ASPE 2018). MACPAC has previously noted poor interagency coordination and data sharing between child welfare and Medicaid agencies, with a lack of knowledge among program staff about each other's benefit programs (MACPAC 2015).

This section describes how pregnant and postpartum Medicaid beneficiaries with SUD may interact with the criminal justice system and child welfare agencies. We also examine the roles of Medicaid, the criminal justice system, and state agencies that oversee the child welfare system.

Criminal justice system

Women make up a small proportion of individuals who are incarcerated; however, three-quarters of them are of childbearing age. Two-thirds of these women are mothers and the primary caregivers to young children, and up to 84 percent have been pregnant at some point (Sufrin et al. 2019). Incarcerated pregnant women are more likely to have risk factors, including a history of SUD, limited

access to health care, and a history of trauma and abuse, that may lead to poorer perinatal outcomes when compared to pregnant women who are not incarcerated (Kozhimannil and Shlafer 2014). In a study of 22 state prison systems and federal prisons, 3.8 percent of newly admitted women were pregnant and 0.6 percent of all incarcerated women were pregnant in December 2016 (Sufrin et al. 2019).

Payment for services while individuals are incarcerated. Medicaid and the criminal justice system share responsibility for providing health care to justice-involved populations, including pregnant women. With a few exceptions, Medicaid is the payer of health care services for eligible and enrolled individuals who are subject to parole and probation, while correctional institutions, including federal and state prisons and local jails, must pay for health care costs while individuals are confined to their facilities.[21] SUDs, including OUD, are prevalent among criminal justice populations (MACPAC 2018c). However, in national surveys, utilization of MOUD is often low in criminal justice settings (e.g., drug courts, jails, and prisons). Thus, OUD goes largely untreated during periods of incarceration, and use of opioids and other drugs often resumes after release (NIDA 2018). As such, former inmates are at high risk for opioid overdose following prison release.

Federal law prohibits the use of federal Medicaid funds for most health care services for inmates of public institutions, except in cases of inpatient care lasting 24 hours or more (42 USC § 1393d(a)(29)(A)).[22] As such, states have an incentive to enroll individuals in Medicaid to claim federal funds for hospital stays longer than 24 hours, including those associated with pregnancy. However, the extent to which Medicaid is the payer of eligible hospital services varies by state—some states do not have written policies regarding Medicaid enrollment for incarcerated individuals; in other states, policies are inconsistent (MACPAC 2018c, McKee et al. 2015).

Prerelease services. Historically, most justice-involved adults were uninsured. In Medicaid expansion states, many are now eligible for Medicaid coverage upon release. For example, 80 percent and 90 percent of state prison inmates in New York and Colorado, respectively, are likely eligible for Medicaid. In North Carolina, which has not expanded Medicaid, only 2 percent of state prison inmates are eligible for Medicaid at any given time (MACPAC 2018c, GAO 2014). Pregnant inmates released before giving birth, or postpartum women leaving prison or jail, may benefit from being connected with Medicaid upon release. Among other things, this may improve access to family planning and preconception care, as well as SUD treatment following release from jail or prison (Kozhimannil and Shlafer 2014).

In Colorado, regional accountable entities, which are responsible for administering the state's Medicaid benefit, are required to provide care coordination for Medicaid-eligible individuals, including pregnant women with SUD, who are transitioning out of the criminal justice system. Care coordination services are meant to ensure continuity of care. The state Medicaid agency also shares data with the Colorado Department of Corrections to streamline Medicaid enrollment for criminal justice-involved populations in the prison system (Normile et al. 2018).

More states may begin to provide care coordination services to individuals leaving jail or prison under a new demonstration opportunity. Among other things, Section 5031 of the SUPPORT Act requires CMS to issue guidance based on best practices to improve care transitions for Medicaid-eligible individuals leaving jail or prison. Care transition services can be provided up to 30 days prerelease and may include providing education about and assistance with Medicaid enrollment, as well as providing health care services. Such guidance was due to states in October 2019; however as of March 2020, it had yet to be released.

Drug courts. Depending on the state, Medicaid agencies and managed care organizations may be required to pay for court-ordered SUD treatment (Regenstein and Nolan 2014).[23] However, in some states, general funds or local government dollars may be used to fund such services. Jail diversion

programs, including drug courts, have been developed with the goal of reducing or eliminating time individuals with behavioral health conditions spend in jail by redirecting them from the criminal justice system to community-based treatment (CMHS National GAINS Center 2007). Participation in drug court often occurs over months or years. Frequent urine drug screens, clinical treatment for SUD, case management, and appearances in court are required (NDCRC 2020).[24]

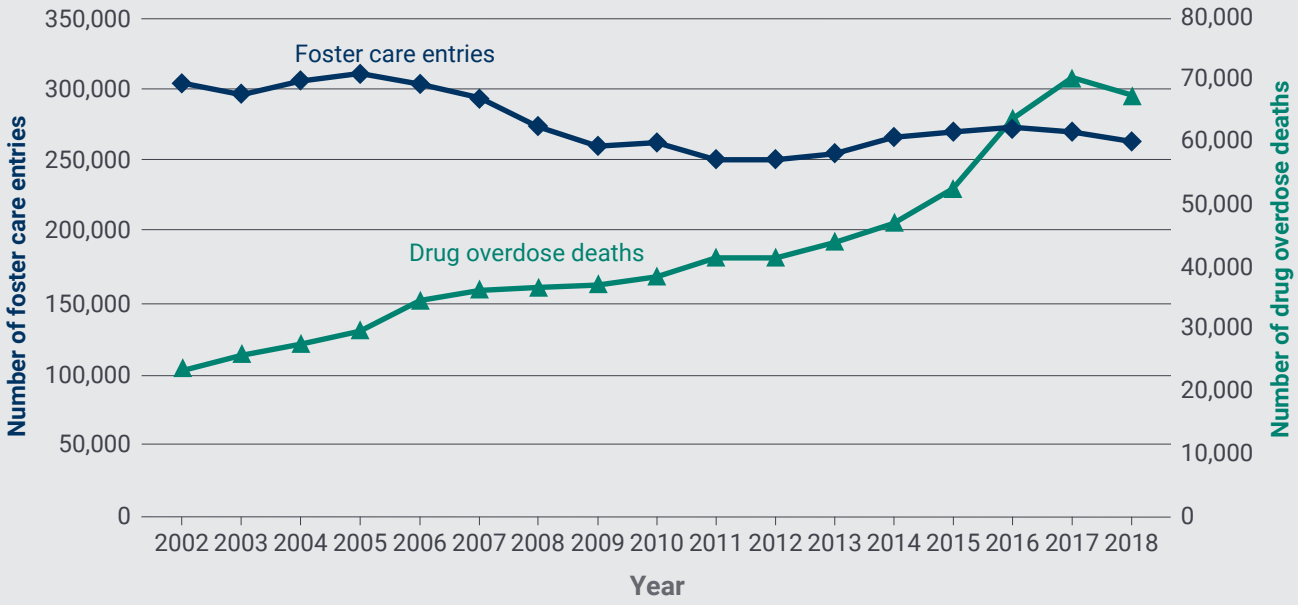
There are more than 4,100 drug court programs in the U.S.; this number includes family drug courts, which emphasize treatment for parents with SUD (NDCRC 2020). Family drug courts seek to reunify and stabilize families affected by parental drug use. Program goals include helping the parent to become emotionally, financially, and personally self-sufficient; promoting the development of parenting and coping skills adequate for serving as an effective parent on a day-to-day basis; and providing services to their children (DOJ 2020).

Child welfare agencies

Child welfare agencies are tasked with promoting the safety, permanency planning and placement, and well-being of children. They provide services to prevent the abuse and neglect of children and to ensure a child's safety within the home.[25] They also investigate allegations of abuse and neglect and, when necessary for a child's safety, remove the child from the home for placement in foster care (MACPAC 2015).

After declining for many years, the total number of children in foster care began increasing in 2012; 36 states experienced caseload increases from 2012 to 2016 (ASPE 2018). These increases are correlated with the increase in overdose deaths (Figure 6-5).

FIGURE 6-5. Number of Foster Care Entries and Drug Overdose Deaths in the United States, 2002–2018



Notes: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

Sources: Hedegaard et al. 2020; ACF 2019.

One study estimated that in the average U.S. county, a 10 percent increase in the overdose death rate corresponded to a 4 percent increase in the foster care entry rate. Similarly, a 10 percent increase in the average county's drug-related hospitalization rate corresponded to a 3 percent increase in its foster care entry rate (ASPE 2018).

Medicaid's role for child welfare-involved infants and children. Low-income children currently or formerly served by the child welfare system are generally eligible for Medicaid.[26] These children and youths have either been removed from their homes due to abuse or neglect or are receiving in-home child welfare services as the result of allegation of maltreatment.[27] These children often have substantial health, behavioral, social, and other needs for which a range of Medicaid-covered services, including mental health and SUD treatment, may be necessary and appropriate (MACPAC 2015).[28]

Generally, Medicaid is the payer of last resort and can only pay when third parties—including other public programs, private insurers, and certain other entities—do not have a legal obligation to do so (CMS 2014a, 2014b).[29] As a result, states may claim federal Medicaid funding only for services that are not the specific responsibility of a child welfare or other agency.

Role of Medicaid for parents with child welfare agency contact. Unlike their children, who are eligible for Medicaid if they receive services under Title IV-E of the Act, parents do not automatically become eligible for Medicaid when their children come in contact with the child welfare system.[30] Because eligibility for Medicaid as a parent requires the adult to be living with a dependent child, a parent would not be eligible if the child were removed from the home. However, the expansion of Medicaid to low-income adults may allow many parents in families whose children are in the custody of child welfare agencies to gain coverage and access to behavioral health or other Medicaid-covered services. Even if family members are not eligible for Medicaid, services such as family therapy or parenting education may be covered by the program if they are medically necessary for a Medicaid-enrolled child and are directed exclusively to the treatment of the child (MACPAC 2015).

Guidance on family-focused residential treatment. Section 8081 of the SUPPORT Act requires the Secretary of the U.S. Department of Health and Human Services (the Secretary) to develop and issue guidance to states identifying opportunities to support family-focused residential treatment for the provision of SUD treatment. This guidance may provide states with additional opportunities to further coordinate funding provided under Medicaid and Title IV-E. Before issuing the guidance, the Secretary must solicit input from states, various health care providers, health plans, and other relevant stakeholders. Among other things, the guidance must discuss:

- flexibilities under Sections 1115 or 1915 of the Act to provide family-focused residential treatment;
- how states can employ and coordinate funding from the state Medicaid program, Title IV-E, and other programs administered by the Secretary to support treatment and services provided by family-focused residential treatment facilities, including MOUD, family, group, or individual therapy, coordination of care for children, and transitional services and support for families leaving treatment; and
- how states can employ and coordinate funding from the state Medicaid program and Title IV-E to provide foster care payments for a child placed with a parent who is receiving treatment in a licensed residential family-based residential treatment program.

Guidance on opportunities to finance family-focused residential treatment was due 180 days after enactment of the SUPPORT Act; however as of April 2020, this guidance had not been issued.

Systems Fragmentation

No single agency is charged with addressing all the needs of pregnant and postpartum women with SUD, including food, housing, and transportation. The majority of public funding for these programs flows through state government, but state systems are generally fragmented (SAMHSA 2016, CMHS National GAINS Center 2007). As such, providing comprehensive services to pregnant women with SUD requires connecting women and their children with multiple agencies (CMHS National GAINS Center 2007). Below we describe the various programs that support pregnant and postpartum women with SUD and their infants, including:

- services provided by the state behavioral health authority;
- early intervention services, including those provided by the Program for Infants and Toddlers with Disabilities (Part C of the Individuals with Disabilities Education Act (IDEA)), and the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV); and
- other supports, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the Supplemental Nutrition Assistance Program (SNAP), housing, and transportation assistance.

Behavioral health authority

Historically, services for physical health and behavioral health (which includes both mental health and SUD) have been financed and delivered under separate systems (Sundararaman 2009). That means Medicaid beneficiaries with behavioral health conditions, including pregnant women, often find themselves interacting with multiple public and private agencies and receiving care from providers funded by different sources.

Behavioral health efforts are increasingly led by the state Medicaid agency through collaboration with other state and federal agencies, including SAMHSA and the state behavioral health authority. In most states, one behavioral health agency administers both mental health and SUD services, but in other states the two are separated. In most cases, the state behavioral health agency is its own entity, although some states include it in the state Medicaid agency because Medicaid is a major payer of behavioral health services (Sundararaman 2009).

When Medicaid does not pay for certain SUD treatment services, they are typically available through the state behavioral health authority.[31] The Substance Abuse Prevention and Treatment (SAPT) block grant is a noncompetitive formula grant awarded to all states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, the six Pacific territories, and one tribal entity to plan, implement, and evaluate activities that prevent and treat SUD and promote public health. The SAPT block grant affords certain protections for statutorily identified vulnerable populations, including pregnant women. Specifically, pregnant women receiving services under the SAPT block grant must be given priority in treatment admissions, and individuals referred to the state for treatment must be placed in a program or have interim arrangements made within 48 hours (42 USC § 300x-27). States are also required to allocate a dedicated portion of the SAPT block grant award to support pregnant and parenting women (NASADAD 2019).

In addition to the SAPT block grant, since 2004, SAMHSA has provided grants to treatment facilities under its Residential Women and Children and Pregnant and Postpartum Women programs (SAMHSA 2009). It also provides funding for various drug court programs, including family drug courts.

Early intervention services

The Program for Infants and Toddlers with Disabilities and MIECHV offer early intervention services to families of infants with NAS. (Additional discussion of home visiting programs is included in Chapter 5.) Both programs are federally funded and administered by state agencies and are

required to interact with state Medicaid programs to varying degrees.

Program for Infants and Toddlers with Disabilities. Part C of IDEA provides grants to states for early intervention services for infants and toddlers with disabilities or developmental delays, from birth through age two.[32] The program was created to minimize potential developmental delays, reduce educational costs, minimize the need for institutionalization, and improve the capacity of families to meet the needs of children with disabilities.[33] All states and territories participate in the Part C program and are required to designate a lead agency to administer the program and to ensure early intervention services are available to all eligible children, among other requirements.[34] Early intervention services may not be denied to a child based on the family's ability to pay, and Part C requires certain services to be provided at no cost. Other services may be covered by the parent's health insurance, by the Indian Health Service, or by Medicaid (Dragoo 2019).

Because exposure to substances in utero can affect newborn, infant, and childhood developmental outcomes, infants and toddlers born with NAS may require Part C services. As such, models of care that incorporate referrals for infants with NAS to lead agencies for screening and evaluation are necessary to identify potential developmental delays and improve outcomes (Patrick 2020a). Primary referral sources include hospitals, physicians, public health facilities, social service agencies, clinics or health care providers, and child welfare agencies (Dragoo 2019).

Maternal, Infant, and Early Childhood Home Visiting Program. Coordination between Medicaid and Title V agencies—states and non-profit organizations that promote maternal and child health—is required by law (§ 505(a)(5)(F)(ii) of the Act, 42 CFR 431.615). Medicaid and state Title V agencies and grantees care for many of the same populations and contract with many of the same providers. State Title V agencies have pursued coordination in various ways, such as assisting in the development of EPSDT provisions in managed care contracts, monitoring network adequacy, helping to develop EPSDT standards of care, and coordinating with Medicaid agencies to provide home visiting programs (CMS 2016b).

Home visiting can be instrumental in post-discharge care of pregnant women with SUD and infants with NAS. Under MIECHV, created under the ACA, federal grants are available to states, tribal organizations, and non-profit organizations to support evidence-based home visiting services for at-risk pregnant women and parents with young children up to kindergarten entry. Federal funding can be added to state and local funds to support a full array of services for pregnant women, families, infants, and young children. States may implement home visiting models that include services eligible for Medicaid coverage including the following: case management, preventive services, rehabilitative services, home health services, EPSDT, health homes, other licensed practitioner services, and extended services to pregnant women (CMS 2018c, CMS 2016b).

Every state has its own system for determining MIECHV eligibility, and Medicaid may pay for certain components if the infant or mother is Medicaid-eligible and the proposed services are coverable. Authorities that can be used to pay for home visiting services include state plan authority and Sections 1903(m), 1932, 1915(b), 1915(c), and 1115 of the Act (CMS 2016b).

Other social supports

Many social determinants of health, including nutrition, housing, and transportation, are critical for pregnant women with SUD. For example, proper maternal nutrition is critical for fetal development; use of illicit drugs, including opioids and methamphetamines, can contribute to nutritional deficiencies (Sebastiani et al. 2018). Housing is also a critical component in recovery, and experts view it as part of the continuum of care (CMHS National GAINS Center 2007). The various federal programs

that address these social determinants of health are described in greater detail below.

Special Supplemental Nutrition Program for Women, Infants, and Children. WIC is a federal grant program that provides supplemental nutritious foods, nutrition education and counseling, and screening and referrals to other health and social services to low-income pregnant and postpartum women, infants, and children up to the age of five. WIC emphasizes the importance of breastfeeding; breastfeeding women can receive benefits up to the infant's first birthday, while non-breastfeeding postpartum women can receive benefits for up to six months after giving birth (FNS 2013). In 2016, WIC served more than 7.5 million participants. Of this, more than 1.85 million were infants, representing 85.9 percent of all eligible infants (FNS 2019a).

WIC has multiple eligibility qualifications, including categorical, financial, and nutritional risk. Financial eligibility is met if a household has income that is 185 percent of the federal poverty level or less, or if the applicant receives benefits from Temporary Assistance for Needy Families, SNAP, Medicaid, or certain other state programs. Medicaid eligibility is frequently used to establish WIC eligibility. In 2014, 68.8 percent of WIC participants were also enrolled in Medicaid, and 25.7 percent of WIC participants were enrolled in both Medicaid and SNAP. WIC requires states to give information about Medicaid to participants who are income-eligible but not currently enrolled in Medicaid (42 USC § 1786(e)(4)) (Aussenberg 2017).

Supplemental Nutrition Assistance Program. SNAP is the largest federal nutrition assistance program, helping low-income individuals and families purchase groceries at authorized food retail outlets.[35] Beneficiaries of SNAP and Medicaid often overlap; in 2014, about three-quarters of SNAP households included one or more members enrolled in Medicaid or CHIP. Households with young children and households with children headed by single women experience food insecurity at 16.6 percent and 31.6 percent respectively (Coleman-Jensen et al. 2017). In 2017, more than one in five SNAP households included a child age zero to four (Schanzenbach and Alexander 2019).

Some states are aligning their SNAP and Medicaid eligibility systems in an effort to coordinate services and reduce churn. Strategies to coordinate renewals include: using SNAP income data for Medicaid renewals; aligning renewal processes so SNAP and Medicaid renewal dates, notices, and procedures coincide; using streamlined enrollment; and using express lane eligibility (Wagner and Huguelet 2016). Thirty-two states have combined online applications for Medicaid and SNAP (Code for America 2019).

Housing assistance. The relationship between housing and health is well-established. Poor housing conditions can worsen health outcomes related to infectious and chronic disease, injury, and mental health, and may also affect childhood development through exposure to harmful toxins such as lead. Individuals experiencing homelessness or housing instability (for example, difficulty paying rent or frequent moves) also have difficulty obtaining health care and managing complex health conditions (MACPAC 2018d). Pregnancy can increase a woman's risk of being homeless, and pregnant women face greater health risks when they do not have stable housing. Homelessness or housing instability during pregnancy is associated with low birthweight and preterm delivery (Clark et al. 2019).

Historically, programs addressing homelessness and housing instability have been financed through the U.S. Department of Housing and Urban Development (HUD) and administered by state and local governments.[36] Generally, families are eligible for HUD assistance if their incomes are below certain HUD-defined income thresholds.[37] But given that housing assistance programs are not structured as entitlements, they only serve roughly one in four eligible households. Families wishing to receive housing assistance are often placed on waiting lists (Perl and McCarthy 2017).

Pregnant and postpartum Medicaid beneficiaries with SUD may face additional challenges accessing safe and affordable housing. Federal statute imposes a time-limited ban against living in HUD-assisted housing for individuals evicted for drug-related activities. In addition, federal policies allow housing agencies to prohibit or limit housing assistance to individuals who have a past history of drug use or are considered at risk for engaging in illegal drug use (CBPP 2019).

Although Medicaid programs and HUD-funded entities serve many of the same individuals, federal, state, and local housing programs have not traditionally collaborated. Although Medicaid dollars cannot be used to cover room and board, states can cover some housing-related activities. This includes supportive housing services, which combine affordable housing (financed through non-Medicaid funds) with intensive coordinated services such as tenancy sustaining services to help individuals with chronic physical and behavioral health issues maintain stable housing and receive appropriate supports (MACPAC 2018d).

Transportation assistance. Pregnant and postpartum women with SUD enrolled in Medicaid may have trouble accessing care due to inadequate transportation. Federal Medicaid regulations require that states ensure transportation to and from medical appointments for Medicaid beneficiaries with no other means of accessing services; this benefit is known as non-emergency medical transportation (NEMT) (42 CFR 440.170). States must ensure necessary transportation and use of the most appropriate form of transportation for the beneficiary (42 CFR 431.53, CMS 2016c). States are also required to provide assistance with transportation for children and their families under the EPSDT benefit (42 CFR 441.62).

Although the scope of this benefit varies by state, NEMT generally covers a broad range of transportation services, including trips in taxis, vans, and personal vehicles belonging to the beneficiaries and their families or friends. Some states rely on public transportation to provide NEMT; however, this approach varies considerably both within and across states given that public transportation is not available in all areas. States may also use ride-sharing companies like Uber and Lyft to provide NEMT (MACPAC 2019c).

New Models of Care

In February 2019, CMS announced two new models of care: the Maternal Opioid Misuse (MOM) model, which aims to improve the coordination of care for pregnant women with an OUD and infants with NAS, and the Integrated Care for Kids (InCK) model, which aims to reduce expenditures and improve child health outcomes, including those related to the opioid crisis. Both aim to address fragmentation among systems and improve quality of care and access to services while creating sustainable coverage and payment strategies. These models began January 1, 2020, and will run for five and seven years respectively; thus, any findings from these models will not be available for some time.

Maternal Opioid Misuse model. The MOM model provides funding to state Medicaid agencies to target pregnant and postpartum beneficiaries with an OUD and their infants, addressing barriers to care, including:

- lack of access to comprehensive services during pregnancy and the postpartum period;
- fragmented systems of care; and
- shortage of maternity care and SUD treatment providers for pregnant and postpartum Medicaid beneficiaries (CMS 2019a).

The MOM model requires that pregnant and postpartum women with OUD receive a comprehensive set of services (e.g., maternity care, MOUD, mental health screening). Awardees can define a specific set of services within the model that satisfy five components: comprehensive care management, care coordination, health promotion, individual and family support, and referral to community and social services (CMS 2019a).

In December 2019, CMS issued cooperative agreements to 10 states, with awards totaling approximately $50 million for a five-year period.[38] In the first year of the model, awardees will receive implementation funding to address structural barriers to care.[39] In the second year, states will receive transition funding to cover wrap-around coordination, engagement, and referral activities. During full implementation of the model in the last three years of the agreement, state Medicaid agencies will access milestone funding to sustain care transformation based on their performance on a number of quality metrics (see Box 6-4 for state examples) (CMS 2019a).

BOX 6-4. Examples of State Implementation Plans under the Maternal Opioid Misuse (MOM) Model

Maine. Maine is seeking to establish a more integrated system of care that brings together all of a pregnant woman's providers, services, and supports. This could include providers such as obstetrician-gynecologists, prescribers of medications used to treat opioid use disorder, and substance use counselors; services such as contraceptive counseling and offering long-acting reversible contraceptives; and supports such as child protective services and the creation of plans of safe care, among many others. In particular, the state plans to build off its existing opioid health home program to establish a maternity opioid health home. Using bundled payments, this model will meet the specialized needs of pregnant women with opioid use disorder through a team-based approach to care.

Maine is also using its CradleME line, which is a specialized referral system for families to be connected to resources. The state plans on promoting the line and doing outreach to encourage access to treatment for pregnant women with substance use disorder (SUD) (Alford 2020).

Tennessee. Tennessee is focusing on providing evidence-based care and making connections to public resources (Patrick 2020a). The state is providing a targeted set of services for mothers and infants during the prenatal period, at the hospital, and in the postdischarge period:

- **Prenatal.** Provide evidence-based mental health, infectious disease, and addiction treatment for the pregnant woman, as well as well-woman care, and other pediatric, childlife, and lactation services.
- **Hospital.** Ensure rooming-in of mother and baby and provide consultations with addiction medicine and lactation specialists for the mother. For infants, use risk-appropriate care, minimize the use of morphine, and provide developmental screenings and preventive services.
- **Discharge.** Provide relapse prevention, home nurse visiting, contraceptive counseling, and addiction treatment for the mother. For infants, refer to early intervention services, monitor development, and do hepatitis C follow-up (Patrick 2020b).

Using patient navigators to coordinate care, developing plans of safe care, and ensuring that mothers are engaged with maternal addiction recovery programs will be essential throughout the three time periods (Patrick 2020b).

BOX 6-4. (continued)

West Virginia. West Virginia is using the MOM grant to build on its Drug Free Moms and Babies program, to increase the number of programs in the state from 12 to 16. The state plans to build services around its health home care coordination model and plans to fully integrate the model into West Virginia's maternity care system. The state will also extend postpartum coverage up to one year and transition to well-woman care (Becker 2020a). Ultimately, West Virginia hopes to increase access to treatment and expand accessibility to services by:

- developing comprehensive care for the mother and baby;
- increasing care coordination;
- recognizing specialized community resources in the treatment and recovery of SUD, healthy pregnancy, childbirth, lactation, infant bonding, and child development;
- continuing support to rural counties by health worker engagement in local communities; and
- addressing social determinants of health that cannot be as effectively addressed in a health care setting (Becker 2020b).

Integrated Care for Kids model. The InCK model targets all Medicaid and CHIP beneficiaries from birth to age 21, across multiple service systems. The model's goals are to improve child health, reduce avoidable inpatient stays and out-of-home placement, and create alternative payment models. By bringing together medical, behavioral, and community-based services, InCK expects to reduce fragmentation in service delivery and expand access to care. Lead organizations, which are state Medicaid agencies or HIPAA-covered entities (e.g., hospitals), will coordinate and integrate the following core child services, some of which may or may not be covered by Medicaid: clinical care (physical and behavioral health), schools, food, early care and education, housing, Title V agencies, child welfare, and mobile crisis response services (CMS 2019f).

InCK model participants can design interventions for their local communities that align health care delivery with child welfare support, educational systems, housing and nutrition services, mobile crisis response services, maternal and child health systems, and other relevant service systems; participants must integrate these services via care coordination and case management.[40] This model uses a tiered service-delivery model to provide increased services to children who may have multisector needs, functional impairments, and who are at risk or currently placed outside of their homes (CMS 2019f).

In December 2019, CMS announced that nearly $126 million would be awarded through eight cooperative agreements to states and lead organizations in seven states for a seven-year period.[41] The first two years cover the preimplementation period in which CMS will work with participants to provide technical assistance and establish or modify any needed Medicaid and CHIP authorities. The model will be fully implemented for the following five years (CMS 2019f).

Endnotes

[1] Opioids can be natural, synthetic, or semisynthetic. Morphine and codeine are examples of natural opioids. Synthetic opioids are designed to have a chemical structure that is similar to opioids naturally derived from the opium poppy. These include drugs such as fentanyl, fentanyl analogs, and tramadol. Semisynthetic opioids include prescription drugs such as morphine, hydrocodone, and oxycodone, as well as illicit drugs, such as heroin (CAMH 2020).

[2] Marijuana use is also increasing among pregnant women; however, use of marijuana during pregnancy is beyond the scope of this chapter.

[3] In 2018, 6.9 percent of Medicaid beneficiaries self-reported illicit drug dependence or abuse, compared to 2.7 percent of individuals with private coverage (SHADAC 2020).

[4] In 2018, 12.1 percent of Medicaid beneficiaries with SUD were currently receiving treatment, compared to 4.3 percent of individuals with private coverage (SHADAC 2020)

[5] Federal statute requires that all states provide Medicaid coverage for pregnant women with incomes at or below 138 percent of the federal poverty level (§ 1902(a)(10)(A)(i)(IV) of the Social Security Act). Most states provide coverage at levels above this (CMS 2019g).

[6] The NSDUH is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA).

[7] MACPAC did not develop estimates on marijuana use during pregnancy because it was outside the scope of this chapter.

[8] Health care settings include: an overnight stay in an inpatient hospital; an outpatient drug or alcohol rehabilitation facility; an outpatient mental health center; an emergency room; or a private doctor's office.

[9] Under the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (SUPPORT Act, P.L. 115-217), states must explicitly include MOUD as a Medicaid-covered service for a five-year period beginning October 1, 2020. States can be exempted from this requirement if before October 1, 2020, they can satisfactorily certify that covering all eligible individuals in the state is not feasible due to a shortage of qualified MOUD providers or treatment facilities willing to provide services under contract either with the state or with a managed care organization working with the state under Section 1903(m) or Section 1905(t)(3) of the Act (MACPAC 2019b).

[10] The National Survey on Substance Abuse Treatment Services does not further define what special programming for pregnant and postpartum women includes.

[11] Specifically, MACPAC found that buprenorphine prescriptions for Medicaid beneficiaries increased by 12 percent between July 2017 and June 2018, twice the rate of increase for all patients. In addition, nurse practitioners and physician assistants accounted for an increasing proportion of all buprenorphine prescribers during this period (MACPAC 2019b).

[12] Facilities may offer services across multiple ASAM levels of care; therefore, the percentage of facilities accepting Medicaid is not necessarily indicative of the percentage of facilities that accept Medicaid payment for a specific level of service. For example, a provider offering two services—partial hospitalization (ASAM level 2.5) and outpatient treatment (ASAM level 1.0)—may report accepting Medicaid, but the state Medicaid program may only cover one of the services. Facilities offering partial hospitalization and different intensities of residential services (ASAM level 3.0) accept Medicaid at a lower rate overall (MACPAC 2018a).

[13] Colorado, Delaware, Idaho, Indiana, Nevada, and Wisconsin do not have any SUD treatment facilities that also accept Medicaid with beds for the children of clients.

[14] There are currently no FDA-approved medications to treat marijuana, amphetamine, or cocaine use disorders (MACPAC 2019b).

[15] A pediatric complex chronic condition is a medical condition that is expected to last at least 12 months and involve either one organ system or several organ systems severely enough that it requires specialty pediatric care. Condition categories include cardiovascular, other congenital or genetic defect, hematologic or immunologic, metabolic, neurologic and neuromuscular, respiratory, premature and neonatal, gastrointestinal, malignancy, renal and urologic, technology dependence, and transplantation (Jarlenski et al. 2020).

[16] The Section 1915(i) state plan option was created in the Deficit Reduction Act of 2005 (DRA, P.L. 109-171) and updated by the ACA.

[17] Approval for Special Connections was granted under a SPA that allowed the state Medicaid program to provide extended services to pregnant women up to 60 days postpartum, and a Section 1915(b) waiver that allowed the state to continue to cover SUD treatment for 2 to 12 months postpartum. Historically, for women to be eligible to receive services postpartum, they had to be enrolled in Special Connections prior to delivery. Legislation passed in July 2019 allows postpartum enrollment. This is currently covered through non-Medicaid funds but will be covered through Medicaid by July 1, 2021 (Mathematica 2020).

[18] Since its inception in 1965, Medicaid has largely prohibited payments for services provided to beneficiaries in IMDs. This restriction is one of the few instances in the Medicaid program in which federal financial participation is not available for medically necessary and otherwise covered services based on the setting in which they are provided. Federal law broadly defines an IMD as a "hospital, nursing facility, or institution of more than 16 beds that is primarily engaged in providing diagnosis, treatment, or care of persons with mental diseases, including medical attention, nursing care, and related services" (§ 1905(i) of the Act). States may make Medicaid payments for services provided in IMDs under other authorities (e.g., Section 1115 demonstration waivers and time-limited state plan options) (MACPAC 2019d).

[19] This applies only to women who are enrolled under the state plan immediately before becoming a patient in the IMD or who become eligible to enroll while a patient in an IMD.

[20] For a state to be eligible for FFP, the following requirements must be met:

- States must cover services consistent with at least six levels of care; four of these services must be outpatient levels of care. The state must also cover at least two inpatient or residential levels of care.
- IMDs must follow reliable, evidence-based practices and offer at least two forms of MOUD on-site. For opioid use disorder, this must include one antagonist (e.g., naltrexone) and one partial agonist (e.g., buprenorphine). IMDs must also be able to provide care at a lower level of clinical intensity or have an established relationship with another facility or provider that can deliver a lower level of care and accepts Medicaid.
- States must maintain non-federal, non-Medicaid spending levels for services furnished to Medicaid beneficiaries age 21–64 with at least one SUD in IMDs that would qualify under this state plan option and for outpatient and community-based settings. Outpatient and community-based service spending includes all outpatient treatment as well as spending on drugs used to treat SUD, drug testing, monitoring for medication adherence, evidenced-based recovery support services, and other services designated by the Secretary of Health and Human Services (the Secretary). States must submit a report to the Secretary prior to state plan approval.
- Prior to approval of a state plan amendment, the state must notify the Secretary how the state will ensure that individuals receive appropriate evidenced-based clinical screenings before they receive services in an IMD, including the initial screening and periodic assessments to determine if care is appropriate.
- States must ensure appropriate transitions of care for individuals leaving IMDs and ensure that placement in an IMD will allow an individual to successfully transition to the community, considering factors such as proximity to an individual's support network.

[21] Criminal justice-involved individuals include adults serving sentences in prisons and jails, awaiting trial or sentencing, and fulfilling obligations under community supervision, such as in parole or on probation. They also include youths who may be served in a separate system; most youths are under community supervision through orders of probation and parole. Compared to the general population, those involved in the criminal justice system tend to have more complex and unmet health care needs. An estimated 65 percent of incarcerated individuals have SUD (MACPAC 2018c).

[22] To be considered an inmate of a public institution, an individual must be held involuntarily by law enforcement authorities. In 2015, CMS issued guidance further clarifying when an individual is considered an inmate of a public institution. Specifically, federal matching funds are available for individuals who are: on parole, probation, or released to the community pending trial; living in a halfway house where

individuals can exercise personal freedom; voluntarily living in a public institution; or on home confinement. Federal financial participation is not available for individuals living in: state or federal prisons, local jails, or detention facilities; federal residential reentry centers; residential mental health and substance use disorder treatment facilities for incarcerated individuals; or hospitals or nursing facilities that exclusively serve incarcerated individuals (MACPAC 2018c).

[23] Medicaid payment for services that are mandated by drug courts is affected by a number of factors, including whether Medicaid covers mandated services and if the person is eligible for Medicaid.

[24] Drug courts receive funding through a variety of federal and state funding mechanisms. In the past, some drug courts have resisted the use of MOUD. In 2015, the Office of National Drug Control Policy announced that state drug courts receiving federal grants must not: (1) deny any appropriate and eligible client for drug court access because of their use of FDA-approved medications that is in accordance with an appropriately authorized prescription; or (2) mandate that a drug court client no longer use medications as part of the conditions of the drug court if such a mandate is inconsistent with a medical practitioner's recommendation or prescription (DOJ 2015).

[25] Among other things, child welfare agencies are responsible for monitoring the work of local entities to determine whether and how plans of safe care are adopted for substance-exposed infants. A plan of safe care is a document, developed by a health care professional, that directs services and supports to ensure the safety and well-being of infants exposed to substances in utero, including opioids. The passage of CARA included amendments that changed the requirements for plans of safe care to be inclusive of the needs of the family or caregiver in instances when an infant experiences withdrawal symptoms or fetal alcohol disorder or is identified as being affected by substance use (Heisler and Duff 2018).

[26] For children eligible for Medicaid on the basis of child welfare assistance, Medicaid agencies accept child welfare determinations of eligibility (MACPAC 2015).

[27] Children who have been removed from their homes may be placed in temporary foster care but may also be permanently placed with an adoptive or kinship guardian family. Others may age out of foster care without having secured permanent placement but remain eligible for Medicaid until age 26 (MACPAC 2015).

[28] Among children eligible for Medicaid based on child welfare assistance, 49 percent had diagnoses of mental health disorders and 3 percent had diagnoses of SUD; for other children in Medicaid, the figures were 11 percent and less than 1 percent, respectively. Child maltreatment has also been associated with increased risk of other longer-term health and social problems. Specifically, childhood trauma can increase alcoholism, illicit drug use, risky sexual behavior, and mental health issues, including depression and attempted suicide, as well as cancer and heart, lung, and liver disease (MACPAC 2015).

[29] The Bipartisan Budget Act of 2018 (P.L. 115-123) allows states to use funding under Title IV-E to support certain SUD and mental health treatment services as well as skills-based programs for in-home parents. Such services may be provided to children at risk of entering foster care, youths in foster care who are pregnant and parenting, and parents or kin caregivers of these children. Prior to this action, Title IV-E funding was not available for these services to families involved in the child welfare system. Other federal funding may also be used to provide SUD and mental health treatment, including Medicaid funds (Heisler and Duff 2018). The SUPPORT Act (§§ 106(b)(2)(B)(ii)—(iii)) clarifies Medicaid's role in paying for Title IV-E prevention services when a child or adult may be eligible for services under more than one program. Specifically, it stipulates that Title IV-E prevention services are not intended to reduce Medicaid payment for services that would otherwise be available to a beneficiary.

[30] Title IV-E of the Act provides federal funding for child welfare assistance for low-income children who have been removed from their homes. Title IV-E is an entitlement program through which states are entitled to reimbursement for some of the costs of providing foster care, adoption assistance, or kinship guardianship assistance for eligible children. State child welfare agencies are responsible for the safety and well-being of children under their care and for connecting them to a permanent and safe home if they cannot be reunited with their biological parents. Agencies must also ensure that the health needs of these children are met but may not use federal funds under Title IV-E to do so (MACPAC 2015).

[31] SAMHSA has made funding available for SUD treatment services through other programs including Access to Recovery grants, the State Targeted Response to Opioid Crisis grant, and Bringing Recovery Supports to Scale Technical Assistance Center Strategy funding (MACPAC 2019a).

[32] In 2018, approximately 389,000 infants and toddlers received early intervention services, and in FY 2019, approximately $470 million was appropriated for Part C programs (Dragoo 2019).

[33] Part C of the IDEA uses a definition of disability in determining eligibility for early intervention services that hinges on a child experiencing a developmental delay or having a high probability of experiencing a developmental delay. This may include delays in physical, cognitive, communication, social, emotional, or adaptive development (Dragoo 2019). Eligibility for Part C services differs by state, and is determined based on each state's definition of developmental delay (ECTA 2020). This definition can include disorders secondary to exposure to toxic substances, such as neonatal abstinence syndrome (34 CFR 303.21).

[34] Under the Part C program, the governor is responsible for appointing members to an interagency coordinating council (ICC), including parents of infants and toddlers with disabilities, service providers, and employees of relevant state agencies, one of which must be from the state Medicaid agency (Dragoo 2019).

[35] SNAP benefits are loaded each month onto an electronic benefits transfer card which can be used to purchase eligible items. The SNAP benefits that a household receives are based on the U.S. Department of Agriculture's Thrifty Food Plan, which is an estimate of the cost to buy food for nutritious, low-cost meals (FNS 2019b).

[36] HUD administers five main rental assistance programs that subsidize rents for low-income families. These are: the Public Housing program, the Section 8 Housing Choice Voucher program, the Section 8 Project-Based Rental Assistance program, the Section 202 Supportive Housing for the Elderly program, and the Section 811 Supportive Housing for Persons with Disabilities program. In addition to these five main rental assistance programs, HUD also operates several grant programs including Homeless Assistance Grants, the Housing Opportunities for Persons with AIDS (HOPWA) grant, and the HOME Investment Partnerships Program (Perl and McCarthy 2017).

[37] HUD programs vary in some important ways (e.g., how assistance is provided, who administers the assistance, which populations may receive assistance), but they use similar standards when establishing tenants' income eligibility and minimum contributions toward rent. Unlike the poverty measurement used by some other federal benefits programs, income eligibility for HUD-assisted housing varies by locality and is tied to the median income of the area (Perl and McCarthy 2017).

[38] Ten states have been awarded MOM Model funding: Colorado, Indiana, Louisiana, Maine, Maryland, Missouri, New Hampshire, Tennessee, Texas, and West Virginia. These funds may not be used to supplant or duplicate Medicaid-funded services (e.g., well-woman care, OUD treatment, prenatal and postpartum care, or labor and delivery) (CMS 2019a).

[39] On April 16, 2020, as a result of the COVID-19 public health emergency, CMS announced a six-month postponement of the requirement that MOM model recipients begin to screen and enroll beneficiaries by January 2021, pushing the enrollment date to July 1, 2021. In addition to the enrollment delay, CMS is reviewing all requirements currently in place for years one and two of the MOM model (CMS 2020b).

[40] Each InCK model awardee must also incorporate six key service integration design characteristics into its model:

- population-wide approach;
- information sharing across provider and families and caregivers;
- mobile crisis response services;
- person- and family-centered service delivery;
- streamlined and coordinated eligibility and enrollment processes; and
- service accessibility (CMS 2019f).

[41] The InCK model is funding states and organizations in Connecticut, Illinois (two awards), New Jersey, New York, North Carolina, Ohio, and Oregon (CMS 2019f).

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APPENDIX 6A: Medicaid Coverage of Services for Substance Use Disorder

TABLE 6A-1. Number of States Offering Medicaid Coverage of Substance Use Disorder Treatment, Recovery Support Services, and Case Management, 2018

Service description	States with Medicaid coverage
Clinical services	
Early intervention services. Assessment and education for at-risk individuals who do not meet diagnostic criteria for SUD.	44
Outpatient services. Fewer than nine hours of service per week for recovery or motivational enhancement therapies or strategies.	50
Intensive outpatient services. Nine or more hours of service per week to treat multidimensional instability.	44
Partial hospitalization. Twenty or more hours of service per week for multidimensional instability not requiring 24-hour care.	33
Clinically managed low-intensity residential services. Twenty-four-hour structure with available trained personnel; at least five hours of clinical service per week or as step-down from more intensive care.	27
Clinically managed population-specific high-intensity residential services. Twenty-four-hour care with trained counselors to stabilize multidimensional imminent danger. Less intense milieu and group treatment for those with cognitive or other impairments unable to use full active milieu or therapeutic community.	22
Clinically managed high-intensity residential services. Twenty-four-hour care with trained counselors to stabilize multidimensional imminent danger and prepare for outpatient treatment. Able to tolerate and use full active milieu or therapeutic community.	34
Medically monitored intensive inpatient services. Twenty-four-hour nursing care with physician availability for significant problems in acute intoxication, withdrawal potential, or both; biomedical conditions and complications; above symptoms may or may not be accompanied by emotional, behavioral, or cognitive conditions and complications. Counselor availability 16 hours per day.	29
Medically managed intensive inpatient services. Twenty-four-hour nursing care and daily physician care for severe, unstable problems in acute intoxication, withdrawal potential, or both; biomedical conditions and complications; above symptoms may or may not be accompanied by emotional, behavioral, or cognitive conditions and complications. Counseling available to engage patient in treatment.	44

TABLE 6A-1. (continued)

Service description	States with Medicaid coverage
Medications to treat opioid use disorder	
Methadone, oral formulation. An opioid agonist that binds to and activates the brain's opioid receptors to treat opioid use disorder. It suppresses withdrawal symptoms, controls opioid cravings, and blunts or blocks euphoric effects of opioids. Methadone may only be dispensed in oral form, in accordance with federal opioid treatment program standards.	42
Buprenorphine. A partial opioid agonist that binds to and activates the brain's opioid receptors. It reduces withdrawal symptoms and cravings and blunts or blocks euphoric effects of other opioids. It comes in oral, injectable, and implantable formulations. Oral formulations commonly include naloxone, a drug that is used to reverse opioid overdose.	
Oral formulations of buprenorphine, including buprenorphine-naloxone	50
Implantable buprenorphine	37
Injectable buprenorphine	33
Naltrexone, oral and injectable formulations. An opioid antagonist that binds to opioid receptors but does not activate them. It is used to prevent relapses and comes in an oral formulation and an extended-release injectable formulation.	51
Recovery support services	
Comprehensive community supports. Services that address barriers that impede the development of skills necessary for independent functioning in the community.	29
Peer support services. Supportive services delivered by a person in recovery from SUD.	38
Skills training and development. Services that help a beneficiary with SUD acquire new skills, ranging from life skills to employment readiness and restoration to the community.	15
Supported employment. Helps individuals achieve competitive employment in community settings.	13
Supportive housing. Evidenced-based intervention that combines housing assistance with wrap-around support services for people experiencing homelessness, as well as other people with disabilities.	4
Case management services	
Recovery management. Case management or checkups to assess where an individual is in the recovery cycle and what additional recovery support services may be necessary.	10
Transitional case management. Care management services for a patient following a discharge from a hospital, or facility-based care.	17
Targeted case management. Case management services that assist individuals in gaining access to needed medical, social, educational, and other services.	41

Notes: SUD is substance use disorder. For the purposes of this table, the District of Columbia is counted as a state, for a maximum total of 51.

Sources: MACPAC 2019a, 2019b, 2018a.