



September 2018

ADOLESCENT AND YOUNG ADULT SUBSTANCE USE

Federal Grants for Prevention, Treatment, and Recovery Services and for Research

GAO Highlights

Highlights of [GAO-18-606](#), a report to congressional committees

Why GAO Did This Study

According to the Surgeon General, adolescence and young adulthood are critical at-risk periods for illicit substance use, and such use can harm the developing brain. Congress included a provision in law for GAO to review how federal agencies, through grants, are addressing substance use prevention, treatment, and recovery among adolescents and young adults.

Related to prevention, treatment, and recovery targeting adolescents (aged 12 to 17) and young adults (aged 18 to 25), this report describes (1) grant programs to provide services; (2) NIDA grant-funded research, and (3) gaps stakeholders identified in related services or research.

GAO selected four agencies to review—HHS, ONDCP, DOJ, and Education—the key agencies that fund grant programs for services for adolescents and young adults. GAO analyzed documents on grant programs and on research funded by NIDA. GAO interviewed officials from the four agencies and 20 stakeholder groups (including advocacy and education, and research organizations, as well as a non-generalizable selection of state substance abuse, education, and judicial agencies in four states) about gaps in services or research and agency efforts to help address them. States were selected for variation in geography and overdose rates.

HHS, DOJ, and ONDCP provided technical comments on a draft of this report, which GAO incorporated as appropriate.

View [GAO-18-606](#). For more information, contact John E. Dicken at (202) 512-7114 or dickenj@gao.gov.

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What GAO Found

GAO identified 12 federal grant programs within three federal agencies that funded substance use prevention, treatment, and recovery services in fiscal year 2017 and targeted adolescents' and young adults' use of illicit substances such as marijuana and nonmedical use of prescription opioids. The three agencies included the Department of Health and Human Services (HHS), the Office of National Drug Control Policy (ONDCP), and the Department of Justice (DOJ). While the Department of Education (Education) has grant programs that can fund prevention services for adolescents, they do not specifically target such services.

- Eight programs targeted substance use prevention. In total, they had 1,146 active grantees in fiscal year 2017 and provided about \$266 million in awards that year.
- Four programs targeted treatment and recovery services. In total, they had 57 active grantees in fiscal year 2017. Two of the 4 grant programs awarded about \$23 million in funding in that year (the other two awarded funding in prior years).

In addition, other grant programs beyond these 12 also fund substance use prevention, treatment, and recovery services across age groups, but are not specifically targeted to adolescents and young adults.

HHS's National Institute on Drug Abuse (NIDA)—the agency that is the primary funder of research on illicit substance use—also had 186 active grant-funded research projects focused on substance use prevention, treatment, and recovery among adolescents and young adults as of October and November 2017.

- Most of these research projects—126—were examining prevention, 45 were examining treatment, 4 were examining recovery, and 11 were examining a combination of research categories.
- In total, these 186 research projects received about \$61 million from NIDA in fiscal year 2017.

Most of the 20 stakeholders GAO interviewed identified gaps in services for adolescents and young adults, including insufficient access to recovery services and a shortage of treatment providers, and described financial and other reasons that likely contribute to these gaps. Federal agency officials GAO interviewed agreed that these gaps exist, and described grant programs and other efforts to help address them, such as a grant program that HHS established in 2018 to expand recovery services for these age groups. Stakeholders also identified gaps in research, such as too few treatment studies with adolescent participants, and described reasons for these gaps, including too few federal grants focused on adolescent research. NIDA officials agreed that these gaps exist, and stated that NIDA had eight grant opportunities (as of May 2018) that focused on these age groups or included them as a population of interest, three of which were new in 2018.

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Abbreviations

DOJ	Department of Justice
Education	Department of Education
HHS	Department of Health and Human Services
IHS	Indian Health Service
NIDA	National Institute on Drug Abuse
NIH	National Institutes of Health
OJJDP	Office of Juvenile Justice and Delinquency Prevention
ONDCP	Office of National Drug Control Policy
SAMHSA	Substance Abuse and Mental Health Services Administration

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September 4, 2018

The Honorable Charles E. Grassley
Chairman
The Honorable Dianne Feinstein
Ranking Member
Committee on the Judiciary
United States Senate

The Honorable Bob Goodlatte
Chairman
The Honorable Jerrold Nadler
Ranking Member
Committee on the Judiciary
House of Representatives

According to the Surgeon General, adolescence and young adulthood are critical at-risk periods for the misuse of substances, including the use of illicit substances such as marijuana and opioids.¹ In 2016, about 4 million adolescents aged 12 to 17 in the United States had used illicit substances within the past year, representing about 16 percent of all adolescents in the country. That same year, an estimated 13 million young adults aged 18 to 25 used illicit substances—about 38 percent of all young adults.² The repeated use of illicit substances among adolescents and young adults can result in substance use disorders, which are characterized by symptoms such as the inability to fulfill work, school, and family obligations. According to the Surgeon General, most people who develop a substance use disorder begin using substances during adolescence and develop a disorder by young adulthood, and the use of illicit

¹Substance use is the use of a psychoactive compound with the potential to cause health and social problems and includes tobacco, alcohol, and illicit drugs, such as marijuana, cocaine, heroin, hallucinogens, and inhalants, as well as the nonmedical use of prescription drugs, such as opioid pain relievers. See U.S. Department of Health and Human Services, Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health* (Washington, D.C.: November 2016). For the purposes of this report, we generally define adolescents as 12- to 17-year-olds and young adults as 18- to 25-year-olds. Illicit substances include prescription drugs that are used nonmedically.

²See Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, *Results from the 2016 National Survey on Drug Use and Health: Detailed Tables* (Rockville, Md.: September 2017).

substances can adversely affect the developing brain.³ In addition, the use of illicit substances can lead to death. In 2016 about 5,400 adolescents and young adults between the ages of 15 and 24 died as a result of a drug overdose—a rate that has increased nearly 300 percent since 1999.⁴

In fiscal year 2016 the federal government spent \$11.3 billion on substance use prevention, treatment, and recovery services and research.⁵ Out of this total amount, \$1.5 billion supported prevention services and research—for example, to help discourage the first-time use of substances, to educate individuals about the negative effects of substance use and to test the effectiveness of prevention interventions. Federal agencies used the remaining \$9.8 billion to support treatment and recovery services and research—for example, to help individuals discontinue the use of substances and improve health and wellness, and to test new strategies to effectively treat individuals with substance use disorders. Various federal agencies provide funding for such services or research through grant programs, including the Department of Health and Human Services (HHS), Department of Justice (DOJ), Department of Education (Education), and the Office of National Drug Control Policy (ONDCP). HHS funds the majority of substance use research through the National Institute on Drug Abuse (NIDA), an Institute within HHS's National Institutes of Health (NIH).

The Comprehensive Addiction and Recovery Act of 2016 included a provision for us to review federal grant programs that support substance use prevention, treatment, and recovery services and research

³U.S. Department of Health and Human Services, Office of the Surgeon General, *Facing Addiction in America* (Washington, D.C.: November 2016).

⁴The overdose death rate for persons aged 15 to 24 was 3.2 deaths per 100,000 people in 1999 and 12.4 deaths per 100,000 people in 2016. See Centers for Disease Control and Prevention, National Center for Health Statistics, *Drug Overdose Deaths in the United States, 1999-2016*, Data Brief No. 294 (December 2017), Data table for Figure 2, accessed May 23, 2018, https://www.cdc.gov/nchs/data/databriefs/db294_table.pdf.

⁵This amount reflects total federal spending, for all ages and substances. See Office of National Drug Control Policy, *National Drug Control Budget: FY2018 Funding Highlights* (Washington, D.C.: May 2017). The Office of National Drug Control Policy is responsible for overseeing and coordinating the formulation, implementation, and assessment of a national drug control policy, and supporting budget, to address use of illicit substances.

specifically for adolescents and young adults; and any gaps in such services and research.⁶ This report describes

1. federal grant programs that fund substance use prevention, treatment, or recovery services targeting adolescents and young adults;
2. NIDA grant-funded research projects focused on substance use prevention, treatment, or recovery among adolescents and young adults; and
3. gaps stakeholders identified related to services or research for substance use prevention, treatment, or recovery among adolescents and young adults.

To describe federal grant programs that fund substance use prevention, treatment, or recovery services targeting adolescents and young adults, we reviewed information about grant programs funded by four federal agencies—HHS, DOJ, Education, and ONDCP. We selected these agencies because our prior work and consultations with ONDCP identified them as key federal agencies that provide prevention, treatment, or recovery grant programs that support services for adolescents or young adults. We included in our review grant programs identified by these federal agencies that met the following criteria: (1) substance use prevention, treatment, or recovery was a primary purpose or goal; (2) adolescents and young adults ranging from anywhere between 12 to 25 years of age were the targeted population; (3) all or part of the grants were used for direct services (rather than only for infrastructure development, for example); and (4) the program addressed the use of illicit substances (including nonmedical use of prescription opioids). We excluded grant programs that focused solely on tobacco, alcohol, or e-cigarettes because the use of these substances is legal for certain young adults. We reviewed documentation and interviewed officials from each of the four agencies to obtain information about each of the grant programs, including the number of grantees, award amounts, and any planned evaluations. We did not identify grant programs administered by Education that met all of our criteria. While several of Education’s grant programs allow grantees to use funds for prevention services, they do not specifically target such services.

⁶Comprehensive Addiction and Recovery Act of 2016, Pub. L. No. 114-198, § 201(d), 130 Stat. 695, 714-15 (2016). For the purposes of this report, “substance use treatment and recovery” include treatment of, and recovery from substance use disorders.

In addition to the grant programs targeting adolescents and young adults, we analyzed data on HHS's Substance Abuse Prevention and Treatment Block Grant, which is the largest federal grant program that funds prevention, treatment, and recovery services across age groups. Specifically, we analyzed the Substance Abuse Prevention and Treatment Block Grant data included in HHS's 2017 annual report, which were the most current data available and reflected data pertaining to its 2014 grants. We analyzed these data nationally and by grantee—which included states, territories, and one federally recognized tribe—to determine the percentages of all persons provided prevention, treatment, and recovery services with grants who were adolescents and young adults.⁷ To assess the reliability of these data, we reviewed documentation about the data and interviewed knowledgeable agency officials and determined the data were sufficiently reliable for the purposes of our reporting objective.

To describe NIDA grant-funded research projects focused on substance use prevention, treatment, or recovery among adolescents and young adults, we examined applicable project information, which included research project abstracts and the 2017 funding received. The research projects were identified by NIDA through searches conducted in October and November of 2017 of active projects in the NIH RePORTER database.⁸ We included in our review research projects that (1) primarily focused on adolescent and young adult substance use prevention, treatment, or recovery research; (2) were not animal research; and (3) did not focus exclusively on tobacco, alcohol, or e-cigarettes. We reviewed the individual research abstracts for reference to brain imaging to count how many of those prevention, treatment, and recovery studies involved research on the physical brain. We also obtained from NIDA grant information for the Adolescent Brain Cognitive Development study, a large longitudinal study examining the effects of substance use and other factors on development of the adolescent brain. To verify the reliability of the information obtained from NIDA, we interviewed knowledgeable officials and reviewed relevant documentation. We determined that the data were sufficiently reliable for the purposes of our reporting objective.

⁷Federally recognized tribes have a government-to-government relationship with the United States and are eligible to receive certain protections, services, and benefits by virtue of their status as Indian tribes.

⁸NIH RePORTER is an online searchable database on NIH-funded research projects.

To describe gaps stakeholders identified related to services or research for substance use prevention, treatment, or recovery among adolescents and young adults, we interviewed 20 stakeholder organizations and agencies, in total, to obtain their perspectives on these topics. The organizations included 5 national advocacy and education organizations and 3 research organizations. We selected advocacy and education organizations that broadly represented the views of state substance abuse agencies, community coalitions, juvenile drug treatment courts, private foundations that fund substance use related services, and recovery community organizations. We selected stakeholders from the 3 research organizations because they had expertise in research in substance use prevention, treatment, or recovery among adolescents and young adults.⁹ We also interviewed 12 state substance abuse, education, and judicial agencies from four states. The four states included New Hampshire, West Virginia, Oregon, and Michigan, and were selected to achieve variation in geography, median family income, opioid overdose rates, and the percentage of all persons provided treatment and recovery services (funded by the Substance Abuse Prevention and Treatment Block Grant) that were adolescents and young adults. Finally, we interviewed federal officials from HHS's Substance Abuse and Mental Health Services Administration (SAMHSA), Indian Health Service (IHS), and NIDA; DOJ's Office of Juvenile Justice and Delinquency Prevention (OJJDP), within DOJ's Office of Justice Programs; ONDCP; and Education about any ongoing efforts they have to help address the gaps that stakeholders identified.

We conducted this performance audit from August 2017 to September 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁹The five advocacy and education organizations are the Community Anti-Drug Coalitions of America, the National Association of State Alcohol and Drug Abuse Directors, Grantmakers in Health, the National Association of Drug Court Professionals, and Faces and Voices of Recovery. The three research organizations are the Society for Prevention Research, the College on Problems of Drug Dependence, and the American Society of Addiction Medicine.

Background

Federal Grant Programs

The federal government uses grants to address national priorities—such as substance use prevention, treatment, and recovery—through nonfederal parties, including state and local governments, federally recognized tribes, educational institutions, and nonprofit organizations. While there is variation among different grant program goals and grant types, most federal grants follow a common life cycle that includes an award, implementation, and closeout stage for administering the grants. During the award stage, the federal awarding agency enters into an agreement with the grantee stipulating the terms and conditions for the use of grant funds including the period that funds are available for the grantee’s use. During the implementation stage, the grantee carries out the requirements of the agreement and requests payments, while the awarding agency monitors the grantee and approves or denies payments. The grantee and the awarding agency close the grant once the grantee has completed all the work associated with a grant agreement, the grant period of performance end date (or grant expiration date) has arrived, or both.

Federal grant programs may fund various types of grants, including discretionary grants, formula grants, and cooperative agreements.¹⁰ Discretionary grants are generally awarded on a competitive basis for specified projects that meet eligibility and program requirements. Formula grants are noncompetitive awards based on a predetermined formula, typically established in statute, and are provided to eligible applicants that meet specified criteria outlined by statute or regulation, such as a state. A cooperative agreement is a type of federal financial assistance similar to a grant, except the federal government is more substantially involved with the implementation.

Substance Use Prevention, Treatment, and Recovery Services

Substance use prevention programs and services (which we refer to collectively as “prevention services” in this report) are designed to prevent or delay the early use of substances and stop the progression from use to problematic use or to a substance use disorder. Prevention services generally focus on reducing a variety of risk factors and promoting a

¹⁰For the purposes of this report, we refer to both grants and cooperative agreements as grants.

broad range of protective factors through various activities that include, for example, setting policies that reduce the availability of substances in a community, teaching adolescents how to resist negative social influences, and communicating the harms of substances such as the nonmedical use of prescription opioids and marijuana through media campaigns. In addition, prevention services can be targeted at all members of a given population without regard for risk factors, such as all adolescents, or to particular subgroups of individuals or families, such as those who are at increased risk of substance use due to their exposure to risk factors. Targeted audiences for such services may include families living in poverty or children of substance-using parents.

When substance use progresses to a point that it is clinically diagnosed as causing significant impairments in health and social functioning, it is characterized as a substance use disorder.¹¹ Treatment services for substance use disorders are designed to enable an individual to reduce or discontinue substance use and to address health problems, and typically include behavioral therapy. Behavioral therapies use various techniques to modify an individual's behaviors and improve coping skills, such as incentives and reinforcements to reward individuals who reduce their substance use. For opioid use disorders, treatment may involve combining behavioral therapy with medications—an approach commonly referred to as medication-assisted treatment.¹² Some of these treatment services may be paid for by private insurers, public health coverage programs, nonprofit organizations, or consumers (out-of-pocket), but federal grant programs and various state and local programs also provide funding for these services.

Substance use recovery services are designed to help engage and support individuals with substance use disorders in treatment and provide ongoing support after treatment. There are a variety of recovery services

¹¹The diagnosis of a substance use disorder is made by a trained professional based on 11 symptoms defined in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The number of diagnostic symptoms present defines the severity of the disorder, ranging from mild to severe. See American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. (Arlington, Va.: 2013).

¹²For example, the medication buprenorphine is used to suppress withdrawal symptoms in detoxification therapy and to control the craving for opioids in maintenance therapy for individuals aged 16 or older. For more information about medication-assisted treatment, see GAO, *Opioid Use Disorders: HHS Needs Measures to Assess the Effectiveness of Efforts to Expand Access to Medication-Assisted Treatment*, [GAO-18-44](#) (Washington, D.C.: Oct. 31, 2017).

such as peer recovery coaching, which involves the use of coaches—peers who identify as being in recovery and use their knowledge and experience to inform their work—to help individuals who are transitioning out of treatment to connect with community services and address barriers that may hinder the recovery process. Other examples include recovery housing, which provides a substance-free environment and support from fellow recovering residents, and recovery high schools, which help students recovering from substance use disorders focus on academic learning. Some recovery services may be paid for through various sources, including Medicaid programs in certain states, some private insurers, and federal grant programs. In addition, some recovery services may be offered by member-led, voluntary associations that charge no fees, such as 12-step groups.¹³

Three Federal Agencies Operated 12 Grant Programs That Funded Services Specifically Targeting Adolescents and Young Adults in Fiscal Year 2017

Eight of the 12 Federal Grant Programs for Adolescents and Young Adults Funded Substance Use Prevention Services

We identified 12 federal grant programs within three of the four agencies in our review that funded substance use prevention, treatment, and recovery services in fiscal year 2017 and targeted adolescents' and young adults' use of illicit substances. Eight of these programs focused on prevention, and all 8 remain active in fiscal year 2018. The 8 grant programs have varying purposes and were administered by two entities

¹³A 12-step group provides individuals in recovery social fellowship and a specific pathway to recovery through 12 steps that are ordered in a logical progression.

Models of care may provide further granularity of prevention, treatment, and recovery services. For example, see Continuum of Care, accessed August 14, 2018, <https://www.samhsa.gov/prevention>.

within HHS—SAMHSA or IHS—or by ONDCP. For example, the Drug-Free Communities Support Program is funded and directed by ONDCP to support community coalitions in preventing and reducing substance abuse among youth aged 18 and younger.¹⁴ As another example, the Strategic Prevention Framework for Prescription Drugs program, administered by SAMHSA, is designed to raise awareness about the dangers of sharing prescription medications such as opioids, and to promote collaboration between states and pharmaceutical and medical communities to understand the risks of overprescribing to youth (aged 12 to 17) and adults (aged 18 and older). In addition, this program is intended to provide prevention activities and education to schools, communities, and parents.

In total, the 8 grant programs targeting the prevention of substance use among adolescents and young adults had 1,146 active grantees in fiscal year 2017.¹⁵ The Drug-Free Communities Support Program had the largest number of active grantees—713 community coalitions—and the other 7 programs had a combined total of 434 that included states and federally recognized tribes. The total number of active grantees in fiscal year 2017 includes those that received a single- or multi-year award in fiscal year 2017, as well as those that received a multi-year award in fiscal year 2016 for a project that was ongoing in fiscal year 2017.¹⁶ Grantees were awarded a total amount of about \$266 million in fiscal year 2017, with SAMHSA's Strategic Prevention Framework-Partnerships for Success program providing the largest amount of funding (about \$95 million).¹⁷ (See table 1.)

¹⁴SAMHSA provides grant award management and monitoring support services to ONDCP for the program. ONDCP also collaborates with other partners to provide support to community coalitions funded by the Drug-Free Communities Support Program.

¹⁵We refer to grantees as active grantees if their projects were ongoing in fiscal year 2017 (regardless of when grantees received awards).

¹⁶Multi-year awards refer to awards in which the administering agency provided funding for multiple years of the project all at once. In contrast, single-year awards are those for which only a single year of funding was provided at a time. Grantees who receive single-year awards may also receive single-year awards annually for each of several years.

¹⁷The total amount of awards in fiscal year 2017 includes single-year and multi-year awards that were awarded in fiscal year 2017. All eight prevention grant programs provided single-year awards to some grantees in fiscal year 2017, and two programs also provided multi-year awards to some grantees in fiscal year 2017 or 2016. The total award amount in fiscal year 2017 does not reflect about \$8 million in fiscal year 2016 multi-year

Table 1: Selected Federal Grant Programs Targeting Substance Use Prevention Services among Adolescents and Young Adults, Fiscal Year 2017

Grant program (and administering agency)	Purpose of grant program	Number of active grantees in fiscal year 2017 ^a	Total award amounts in fiscal year 2017 ^b	Ongoing or planned program evaluation
Strategic Prevention Framework - Partnerships for Success (HHS-SAMHSA)	To prevent underage drinking and prescription drug misuse, and to reduce the progression of substance misuse in communities with high prevalence rates of each and with limited resources. Also to strengthen prevention capacity and infrastructure, and to implement prevention activities.	70	\$95,001,680	Yes
Drug-Free Communities Support Program (ONDCP and HHS-SAMHSA)	To support community coalitions in preventing and reducing substance abuse among youth, and over time, reduce substance abuse among adults. ^c Specifically, to address the community-level factors that increase the risk for substance abuse and promote the factors that minimize the risk.	713	\$88,850,103	Yes
Capacity Building Initiative for Substance Abuse and HIV Prevention Services for At-Risk Racial/Ethnic Minority Youth and Young Adults Cooperative Agreements (HHS-SAMHSA)	To support activities to help grantees build a solid foundation for delivering and sustaining quality and accessible substance abuse and HIV prevention services. This program intends to prevent and reduce the onset of substance abuse and transmission of HIV/AIDS among at-risk populations including racial/ethnic minority youth. Grantees must provide education and awareness programs and HIV testing services in non-traditional settings.	85	\$21,488,298	Yes
Cooperative Agreements for Tribal Behavioral Health (HHS-SAMHSA)	To prevent and reduce suicidal behavior and substance use, reduce the impact of trauma, and promote mental health among American Indian and Alaska Native youth. Also to improve community stakeholder collaboration and implement interventions that are culturally responsive, for example, to tribal beliefs and practices. ^d	102	\$21,447,703	Yes
Methamphetamine and Suicide Prevention Initiative-Generation Indigenous (HHS-IHS)	To promote positive American Indian and Alaska Native youth development and family engagement with intervention strategies for reducing risk factors for suicidal behavior and substance abuse. This program is intended to increase youth resiliency and self-sufficiency. ^d	98	\$17,511,690	Yes

awards provided to 9 grantees under SAMHSA's Cooperative Agreements for Tribal Behavioral Health program, nor about \$740,000 in a fiscal year 2016 multi-year award provided to 1 grantee under SAMHSA's Strategic Prevention Framework for Prescription Drugs program.

Grant program (and administering agency)	Purpose of grant program	Number of active grantees in fiscal year 2017 ^a	Total award amounts in fiscal year 2017 ^b	Ongoing or planned program evaluation
Strategic Prevention Framework for Prescription Drugs (HHS-SAMHSA)	To raise awareness about the dangers of sharing medications, and to promote collaboration between states and pharmaceutical and medical communities to understand the risks of overprescribing to youth and adults. This program intends to provide prevention activities and education to schools, communities, parents, prescribers, and patients.	25	\$8,793,538	Yes
Minority Serving Institutions Partnerships with Community-Based Organizations (HHS-SAMHSA)	To prevent and reduce substance abuse and transmission of HIV/AIDS among at-risk populations including racial/ethnic minority young adults. Grantees must partner with community-based organizations to provide integrated substance abuse, Hepatitis C, and HIV prevention services.	33	\$8,443,573	Yes
Substance Abuse and HIV Prevention Navigator Program for Racial/Ethnic Minorities Ages 13-24 Cooperative Agreement (HHS-SAMHSA)	To provide services to those at highest risk for HIV and substance use disorders, especially racial/ethnic males at risk for HIV/AIDS including males who have sex with other males. Grantees will train community members in this population to conduct extensive outreach and assist this population in receiving medical care, substance misuse prevention, and housing services that are culturally appropriate.	20	\$4,000,000	Yes

Legend

HHS-IHS: Department of Health and Human Services, Indian Health Service

HHS-SAMHSA: Department of Health and Human Services, Substance Abuse and Mental Health Services Administration

HIV/AIDS: Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

ONDCP: Office of National Drug Control Policy

Source: GAO analysis of HHS and ONDCP documents and interviews with officials. | GAO-18-606

Notes: We included in our review grant programs related to the use of illicit substances and excluded those that focused solely on tobacco, alcohol, or e-cigarettes because the use of these substances is legal for certain young adults. All eight prevention grant programs provided single-year awards to grantees in fiscal year 2017, and two grant programs also provided multi-year awards to some grantees in fiscal year 2017 or 2016—SAMHSA’s Cooperative Agreements for Tribal Behavioral Health and SAMHSA’s Strategic Prevention Framework for Prescription Drugs program. All eight programs remain active in fiscal year 2018.

^aThe number of grantees in fiscal year 2017 includes grantees that had active projects in that year regardless of when they received awards.

^bThe total award amount in fiscal year 2017 for SAMHSA’s Cooperative Agreements for Tribal Behavioral Health program does not reflect about \$8 million in fiscal year 2016 multi-year awards provided to 9 grantees and the total amount for SAMHSA’s Strategic Prevention Framework for Prescription Drugs program does not reflect about \$740,000 in a fiscal year 2016 multi-year award provided to 1 grantee.

^cFor the purposes of this grant program, a coalition is defined as a community-based formal arrangement for cooperation and collaboration among 12 groups of a community in which each group retains its identity, but all agree to work together toward a common goal of building a safe, healthy, and drug-free community. The 12 groups are comprised of youth (aged 18 or younger); parents;

schools; law enforcement; healthcare professionals or organizations; businesses; media; youth-serving organizations; religious/fraternal organizations; civic/volunteer groups; state, local, or tribal governmental agencies with expertise in the field of substance abuse; and other organizations involved in reducing substance abuse.

^dEligible applicants for this grant program are limited to federally recognized tribes and other tribal entities.

All 8 prevention grant programs had ongoing or planned evaluations to assess the effectiveness of their grantees in accomplishing a variety of program goals, according to agency officials. For example, ONDCP is overseeing the ongoing evaluation of the Drug-Free Communities Support Program through semi-annual progress reports and through the collection of data, such as data on past 30-day substance use, from coalitions that received awards. A recent evaluation of this program found that coalitions included about 19,000 community members who were targeting prevention services to about 20 percent of the population in the United States (including 2.5 million middle school and 3.5 million high school youth) in fiscal year 2015. In addition, this evaluation found that middle and high school youth in communities with a coalition reported a significant decrease in the past 30-day use of marijuana, prescription drugs, alcohol, and tobacco, from 2002 to 2016. However, at the same time, the perceptions of the risk of marijuana use decreased significantly among high school youth in communities with community coalitions, according to the evaluation. As another example, IHS's planned evaluation of the Methamphetamine and Suicide Prevention Initiative-Generation Indigenous grant program will focus on measures such as the types of services that grantees implemented to prevent methamphetamine use and promote positive development among American Indian and Alaska Native youth, according to agency officials. For the other 6 prevention grant programs, planned evaluations will examine the extent to which reductions in substance use are observed over time among the grantees' targeted adolescents or young adults.

Four of the 12 Federal Grant Programs for Adolescents and Young Adults Funded Substance Use Treatment and Recovery Services

Of the 12 federal grant programs targeting adolescents' and young adults' use of illicit substances, we identified 4 that focused on the provision of substance use treatment and recovery services and had active grantees in fiscal year 2017. Two of the 4 programs ended at the close of fiscal year 2017 and the other 2 remained active in fiscal year 2018. The 4 programs had different purposes and were administered by OJJDP or SAMHSA, within DOJ and HHS, respectively. For example, the Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation, administered by SAMHSA, is still active, and intends to increase the capacity of states to provide treatment and

recovery services to adolescents (aged 12 to 18) and transitional-aged youth (aged 16 to 25) that have substance use disorders or co-occurring substance use disorders and mental disorders. This program aims to increase states' capacity by increasing the number of qualified treatment providers. The other 3 grant programs were designed to improve different aspects of the existing juvenile drug treatment courts, which DOJ defines as a court calendar or docket that provides specialized treatment and services for youth with substance use or co-occurring mental health disorders. As an example, the Fiscal Year 2017 Juvenile Drug Treatment Court Program, which is still active and administered by OJJDP, aims to deliver services that are consistent with DOJ's Juvenile Drug Treatment Court Guidelines—a set of best practices for effective juvenile drug treatment courts.¹⁸

In total, the 4 grant programs that targeted substance use treatment and recovery services among adolescents and young adults had 57 active grantees in fiscal year 2017. SAMHSA's Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation had the largest number of active grantees (36), which included state substance abuse agencies and federally recognized tribes. The three juvenile drug treatment court programs had a total of 21 active grantees that included, for example, county juvenile drug treatment courts and a state judicial department. The total number of active grantees in fiscal year 2017 included those that received a single- or multi-year award in fiscal year 2017 as well as active grantees that received multi-year awards in prior years. In total, active grantees from 2 of the 4 programs were awarded about \$23 million in fiscal year 2017.¹⁹ (See table 2.)

¹⁸In 2016, DOJ published research-based guidelines for effective juvenile drug treatment courts. For example, one guideline states that providers should administer treatment modalities that have been shown to improve outcomes for youth with substance use issues. These modalities include behavioral therapy programs that use incentives such as gift certificates to reward abstinence or compliance with treatment. See U.S. Department of Justice Office of Justice Programs, *Juvenile Drug Treatment Court Guidelines* (Washington, D.C.: December 2016).

¹⁹The total amount includes single-year and multi-year awards for two grant programs. In fiscal year 2017 SAMHSA's Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation provided single-year awards to grantees and OJJDP's Fiscal Year 2017 Juvenile Drug Treatment Court Program provided multi-year awards to grantees. The total award amount in fiscal year 2017 includes awards made in fiscal year 2017 and does not reflect about \$4 million in multi-year awards provided to the 10 grantees under OJJDP's fiscal year 2015 program, nor about \$3.3 million in multi-year awards provided to the 8 grantees under OJJDP's fiscal year 2014 program.

Table 2: Selected Federal Grant Programs Targeting Substance Use Treatment and Recovery Services among Adolescents and Young Adults, Fiscal Year 2017

Grant program (and administering agency)	Purpose of grant program	Number of active grantees in fiscal year 2017	Total award amounts in fiscal year 2017 ^a	Ongoing or planned program evaluation
Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation (HHS-SAMHSA)	To improve treatment and recovery services for adolescents and transitional aged youth with substance use disorders and/or co-occurring substance use disorders and mental disorders. Grantees are responsible for improving state capacity to provide such services, for example, by increasing the number of qualified providers.	36	\$21,425,089	Yes
Fiscal Year 2017 Juvenile Drug Treatment Court Program (DOJ-OJP-OJJDP)	To support juvenile drug treatment courts in making system changes, delivering services, and implementing practices that align with DOJ's guidelines. ^b By aligning courts with these guidelines, this program intends to reduce future offending and improve outcomes for youth involved in juvenile drug treatment courts.	3	\$1,378,971	Yes
Fiscal Year 2015 Juvenile Drug Courts Addressing Systematic Barriers Program ^c (DOJ-OJP-OJJDP)	To address barriers in juvenile drug treatment courts that impede success, such as the lack of family involvement. Strategies to address barriers include recognizing and engaging family members, training practitioners about the needs of adolescents, and building collaborative partnerships that enhance integrated treatment.	10	\$0	No
Fiscal Year 2014 Enhancements to Juvenile Drug Courts ^c (DOJ-OJP-OJJDP)	To enhance the capacity of juvenile treatment drug courts and improve the outcomes of youth involved in these courts. Strategies to enhance capacity include increasing the use of screening and assessment procedures and expanding the range of age-appropriate services.	8	\$0	No

Legend

DOJ-OJP-OJJDP: Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention

HHS-SAMHSA: Department of Health and Human Services, Substance Abuse and Mental Health Services Administration

Source: GAO analysis of HHS and DOJ documents and interviews with officials. | GAO-18-606

Notes: We included in our review grant programs related to the use of illicit substances and excluded those that focused solely on tobacco, alcohol, or e-cigarettes because the use of these substances is legal for certain young adults. In fiscal year 2017 SAMHSA's Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation provided single-year awards to grantees and OJJDP's Fiscal Year 2017 Juvenile Drug Treatment Court Program provided multi-year awards.

^aThe total award amount in fiscal year 2017 for OJJDP's fiscal year 2015 program does not reflect about \$4 million in multi-year awards provided to the 10 grantees, and the total for OJJDP's fiscal year 2014 program does not reflect about \$3.3 million in multi-year awards provided to the 8 grantees.

^bA juvenile drug treatment court is a court calendar or docket that provides specialized treatment and services for youth with substance use or co-occurring mental health disorders, according to DOJ. DOJ's guidelines for juvenile drug treatment courts are research-based best practices for effectively implementing these courts. See U.S. Department of Justice Office of Justice Programs, Juvenile Drug Treatment Court Guidelines (Washington, D.C.: December 2016).

^cOJJDP's fiscal year 2015 and 2014 grant programs ended at the close of fiscal year 2017.

Two of the 4 treatment and recovery grant programs had ongoing or planned evaluations to assess the effectiveness of their grantees in accomplishing a variety of program goals, according to agency officials. SAMHSA officials told us that its ongoing evaluation of the Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation is assessing the types of treatment services provided to adolescents and young adults as well as the extent to which they abstained from substance use. Officials added that the evaluation is examining grantees' efforts to expand the qualified workforce of treatment providers for adolescents and young adults. A recent evaluation that was completed for this program found that most grantees provided training to treatment providers on evidence-based treatment services and other topics, and about one-third of grantees identified additional training needs such as training on co-occurring disorders and trauma-informed services. This evaluation also found a decrease in substance use among adolescents and young adults who received treatment services after 6 months and that enhanced provider training was associated with this decrease. OJJDP's Fiscal Year 2017 Juvenile Drug Treatment Court Program includes a planned evaluation of the impact of the DOJ juvenile drug treatment court guidelines on participant outcomes. That is, OJJDP plans to compare the outcomes of participants in courts aligned with the guidelines to participants in other court programs that will serve as "comparison courts." OJJDP officials told us that the evaluation plans to assess youth outcomes such as recidivism in substance use, quality of relationships with parents and peers, and mental wellbeing. OJJDP officials stated that while they are not evaluating their fiscal year 2015 and 2014 juvenile drug treatment court grant programs, grantees must report on various performance measures related to substance use to assist DOJ with fulfilling its responsibilities under the Government Performance and Results Act of 1993 and the GPRA Modernization Act of 2010. For example, grantees must report on a semiannual basis the number of drug and alcohol tests performed on juveniles and the number of positive tests recorded.

Other Federal Grant Programs Fund Prevention, Treatment, and Recovery Services, but Do Not Specifically Target Adolescents and Young Adults

Other federal grant programs beyond the 12 we identified provide funds for substance use prevention, treatment, and recovery services across age groups but do not specifically target adolescents and young adults. The Substance Abuse Prevention and Treatment Block Grant is the largest of such grant programs that fund prevention, treatment, and recovery services across age groups. SAMHSA, which administers this grant, awarded a total of \$1.8 billion in fiscal year 2017 to grantees which included states, the District of Columbia, territories, and one federally recognized tribe. The amount of awards that states receive is based on a formula that takes into account a grantee's: population at risk of substance abuse; relative costs of providing prevention and treatment services; and relative ability to pay for prevention and treatment services.²⁰

States have some flexibility in determining how to use their Substance Abuse Prevention and Treatment Block Grant funds, and our analysis shows variation in the extent to which grantees used these funds to provide prevention, treatment, and recovery services to adolescents and young adults in 2014, the most recent year for which data were available. For prevention services that target individuals, such as those delivered to middle school students in the classroom, the percentage of persons served that grantees could identify as being adolescents and young adults ranged from 0.1 percent (Oklahoma) to 100 percent (American Samoa and United States Virgin Islands). However, most of the grantees reported percentages that fell in the range of 23 to 61 percent.²¹ For prevention services that target populations rather than individuals, such as media campaigns, grantees similarly reported that the percentage of adolescents and young adults served ranged from 0.1 percent (Indiana) to 100 percent (United States Virgin Islands). However, most of the grantees reported percentages that fell in the range of 18 to 46 percent.

²⁰This formula applies to each of the 50 states and the District of Columbia. For Indian tribes and tribal organizations that directly receive Substance Abuse Prevention and Treatment Block Grant funds, the grant amount is reserved from the state's Substance Abuse Prevention and Treatment Block Grant allotment based on the ratio of the state's allotment provided to the tribal entity in fiscal year 1991. 42 U.S.C. § 300x-33(d).

²¹We calculated these percentages by dividing the number of persons aged 12 to 24 (for prevention services) and the number of persons aged 24 and younger (for treatment and recovery services), by the total number of all persons served. We included in the denominator the number of persons served even if their ages were unknown. States could not always identify the ages of the individuals being served by block grant-funded programs, so actual percentages for some grantees may be higher.

For treatment and recovery services, grantees reported that the percentage of all persons served who were adolescents and young adults ranged from 8 percent (District of Columbia) to 100 percent (Red Lake Band of Chippewa Indians). However, most of the grantees reported percentages that fell in the range of 17 to 26 percent. (See app. I for the percentages of persons served that were adolescents and young adults, by grantee.)

In addition to the Substance Abuse Prevention and Treatment Block Grant, other federal grant programs provide funds for prevention, treatment, and recovery services across age groups, but do not specifically target adolescents and young adults. For example, the State Targeted Response to the Opioid Crisis grant program, administered by SAMHSA, aims to help states and others reduce the number of opioid overdose related deaths by providing funds for prevention, treatment, and recovery services for opioid use disorders. In fiscal year 2017, SAMHSA awarded about \$485 million in grants to 50 states, the District of Columbia, and 6 territories through this program. As another example, the Targeted Capacity Expansion: Medication Assisted Treatment – Prescription Drug and Opioid Addiction grant program, also administered by SAMHSA, provides funding to states to expand access to medication-assisted treatment services as well as recovery services among individuals with opioid use disorders. In fiscal year 2017 SAMHSA awarded \$31 million in additional grants to 6 states through this program.

NIDA Had 186 Active Grant-Funded Research Projects Focused on Substance Use Prevention, Treatment, and Recovery among Adolescents and Young Adults in 2017

Most of NIDA's 186 Active Grant-Funded Research Projects for Adolescents and Young Adults in 2017 Focused on Substance Use Prevention

Our analysis found that HHS's NIDA had 186 active grant-funded research projects focused on illicit substance use prevention, treatment, or recovery among adolescents and young adults in October and November 2017, and most of these projects addressed substance use prevention. Specifically, 126 research projects, or about 68 percent of NIDA's ongoing research projects for this population, involved research related to preventing the use of illicit substances, such as the use of marijuana or nonmedical use of opioids and other prescription drugs. The remaining 60 projects, or about 32 percent, involved research related to treatment for or recovery from the use of illicit substances among adolescents and young adults, or a combination of categories (e.g., substance use prevention, treatment, and recovery). Among the categories of research projects, the fewest involved research exclusively about recovery (4 out of 186 projects, or about 2 percent), as shown in table 3. Our analysis also found that about 12 percent of the ongoing projects (22 of 186) involved the use of brain imaging in research on prevention, treatment, or recovery. In total, of the 186 research projects that were active in October and November 2017, 135 received \$61.3 million in grants from NIDA in fiscal year 2017.²² NIDA did not provide

²²NIDA funded a total of 1,651 grants for about \$801 million in fiscal year 2017, not including grants for the Adolescent Brain Cognitive Development study.

awards in fiscal year 2017 for the remaining 51 projects that were active in October and November 2017.²³

Table 3: Active Grant-Funded Research Projects Focused on Adolescent and Young Adult Illicit Substance Use, by Category, October and November 2017

Category of research project	Number of active research projects	Percentage
Prevention	126	67.7
Treatment	45	24.2
Recovery	4	2.2
Combination	11	5.9
Total	186	100.0

Source: GAO summary of National Institutes of Health information. | GAO-18-606

Notes: Research projects include projects related to the use of illicit substances and do not include those that focused solely on tobacco, alcohol, or e-cigarettes because the use of these substances is legal for certain young adults. Projects do not include those under the Adolescent Brain Cognitive Development Study. Some projects included research across multiple categories, such as those that address a combination of treatment and recovery.

The following examples illustrate the types of research activities funded by the prevention, treatment, and recovery grants identified in our review:²⁴

- **Prevention research projects.** One research project involved testing whether a parenting intervention is associated with lower substance use and other high-risk behaviors among adolescents in the long term, including how such outcomes relate to genetic risk factors. The project’s participants included 731 adolescents to be assessed over multiple years. The project planned to collect DNA; observations of family interaction; parent, youth, and teacher reports regarding adolescents’ conduct; and assessments of their peer environments.
- **Treatment research projects.** One research project involved testing the effectiveness of the use of the medication naltrexone (extended release), compared to the use of buprenorphine in

²³The most recent award amounts for these 51 projects totaled \$22.9 million and were awarded in fiscal year 2014, 2015, or 2016.

²⁴We reviewed the summaries of proposed research included in the research project abstracts. We did not independently determine whether each project was being conducted to the specifications outlined in the abstract.

treating adolescents and young adults with opioid use disorders.²⁵ The project's participants included 340 adolescents and young adults and the project planned to provide counseling to the participants during the course of the study. The project planned to assess a variety of outcomes after 3 and 6 months, including the number of days participants were in treatment, participants' use of opioids as well as other drug and alcohol use, and the cost-effectiveness of the treatment.

- **Recovery research projects.** One research project involved testing the effectiveness of a smartphone application to deliver recovery services to adolescents after they received treatment for a substance use disorder, compared to a control group of adolescents that received recovery services via traditional methods. Examples of recovery services delivered with a smartphone application include participating in online recovery group discussions and receiving motivational messages. The project's participants included 400 adolescents to be assessed over a 9-month period. The project planned to collect a variety of information, such as how frequently participants used the smartphone application, how long they abstained from substance use, and their quality of life.

²⁵Naltrexone is used for relapse prevention because it suppresses the effects of opioids, and it carries no known risk of misuse. Buprenorphine suppresses withdrawal symptoms and controls the craving for opioids, but it carries the risk of misuse.

In Fiscal Year 2017, NIDA and Nine Other HHS Entities Funded a Large Study Examining the Effects of Substance Use on Adolescent Brain Development

In fiscal year 2017, NIDA and nine other entities within HHS provided grant funding for a large study—the Adolescent Brain Cognitive Development study—designed to examine the effects of substance use and other factors on development of the adolescent brain.²⁶ This study was established as a result of the collaboration of several federal agencies that determined such a study was needed because of gaps in knowledge about how substance use and other factors affect brain development.²⁷ This study is a longitudinal study that plans to collect data from a sample of about 11,000 children across the country for 10 years, beginning when they are 9 or 10 years old.²⁸ Twenty-one research sites across the country were selected to collect information from children about their brain development, genetics, substance use, mental health, physical health, environment, and other measures. In addition, this study is funding a data analysis and informatics center to develop the procedures for data collection, create and maintain a common database pooling data from all of the research sites, and conduct data analysis. According to NIDA officials, data from the Adolescent Brain Cognitive Development study will be made available to researchers for future use

²⁶Funding for the study is being contributed by NIDA and nine other HHS entities that include other NIH Institutes and offices, and the Centers for Disease Control and Prevention’s Division of Adolescent and School Health. The NIH Institutes and offices include the National Institute on Alcohol Abuse and Alcoholism, National Cancer Institute, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, National Institute of Mental Health, National Institute on Minority Health and Health Disparities, National Institute of Neurological Disorders and Stroke, Office of Behavioral and Social Sciences Research, and the Office on Research on Women’s Health. In addition, DOJ’s National Institute of Justice, the Centers for Disease Control and Prevention’s Division of Violence Prevention, and the National Science Foundation are collaborating and contributing funding for specific substudies that will collect additional information from a subset of the Adolescent Brain Cognitive Development study’s participants. The National Endowment for the Arts is collaborating in an advisory role, but is not contributing funding for the main study or any substudies.

²⁷While prior research involving imaging of the brain has established that substance use affects brain development, there are gaps in knowledge about how this occurs. In addition to examining how substance use affects brain development, the study will address other related research topics, such as how traumatic brain injuries among student athletes influence brain development and educational achievement. See Nora Volkow et al., “The Conception of the ABCD Study: From Substance Use to a Broad NIH Collaboration,” *Developmental Cognitive Neuroscience* (2017), <https://doi.org/10.1016/j.dcn.2017.10.002>.

²⁸For the study website, see <https://abcdstudy.org>, accessed April 30, 2018.

through a data archive.²⁹ In fiscal year 2017, 15 federal grants provided funding for this study, of which NIDA contributed \$18.1 million.

Stakeholders Identified Gaps in Services and Research for Adolescents and Young Adults, and Ongoing Federal Efforts Aim to Address Gaps

Stakeholders Identified Gaps in Services for Adolescents and Young Adults, and Federal Agencies Have Ongoing Efforts to Address Them

Stakeholders that we interviewed identified various gaps in services, and among the most frequently cited were a lack of available recovery services and treatment providers for adolescents and young adults with substance use disorders. They also identified gaps in substance use prevention services such as a lack of prevention services tailored for certain subgroups within these ages. In general, officials from the agencies in our review agreed that these gaps exist, and described actions the agencies are taking that may help address them.

Recovery Services

Gaps in availability of recovery services. Twelve of the 20 stakeholders we interviewed identified gaps in available recovery services for adolescents and young adults that have substance use disorders.³⁰ Specifically, they described insufficient access to recovery services such as peer recovery services, recovery housing, and recovery high schools. They noted that financial reasons largely contributed to these gaps, such as the lack of dedicated federal grant programs. For example, officials

²⁹Data from the Adolescent Brain Cognitive Development study are to be periodically released to researchers on an ongoing basis through the National Institute of Mental Health Data Archive located at <https://data-archive.nimh.nih.gov/abcd>. The first dataset was released in February 2018.

³⁰Stakeholders included all four state substance abuse agencies, two of four state judicial agencies, all five advocacy and education organizations, and one of three research organizations.

from one state substance abuse agency stated that there is a lack of federal grant programs for which recovery services is the primary purpose. They explained that, while grant programs are available to states that support both treatment and recovery services, it is often difficult for a state to justify using such funds for recovery services if the state is already unable to meet demand for treatment services. Stakeholders also cited the lack of coverage for recovery services such as peer recovery coaching by state Medicaid programs and private insurers—which according to one advocacy and education organization often do not pay for these services.³¹ Officials from an advocacy and education organization and a state substance abuse agency explained that Medicaid or private insurance as regular payment sources are needed to help address this gap for adolescents and young adults. An official from the advocacy and education organization added that federal grant programs can help establish recovery programs such as for peer recovery coaching. Officials from another advocacy and education organization stated that while more recovery high schools are needed, it is difficult to establish these schools, in part because state education funds—typically used to fund the educational component of such schools—are limited.³² In addition to financial reasons, stakeholders noted other factors contributing to gaps in recovery services for adolescents and young adults, including some that affect the broader population, such as state workforce shortages and challenges both in accrediting peer recovery services and in licensing recovery homes.

Federal response and efforts to help address gaps in the availability of recovery services. Some of the federal agency officials we spoke to agreed that there are gaps in the availability of recovery services for adolescents and young adults. Three entities within two of the federal agencies we included in our review have established, or are planning to establish, new grant programs in fiscal year 2018 to fund additional

³¹State Medicaid programs may choose to provide coverage for a variety of recovery services for beneficiaries with substance use disorders including peer recovery services under their Medicaid state plans—most commonly under the rehabilitative services option. According to the Medicaid and CHIP Payment and Access Commission, as of September 2015, 14 of the 51 state Medicaid programs it reviewed provided coverage for such peer recovery services under their state plans. See Medicaid and CHIP Payment and Access Commission, *State Policies for Behavioral Health Services Covered under the State Plan*, accessed May 24, 2018, <https://www.macpac.gov/wp-content/uploads/2016/06/BH-State-Plan-Services-Policy-Compendium-Cmsn-review.xlsx>.

³²Officials from the four state education agencies were not aware of any recovery high schools in their states.

recovery services that may help address these gaps, as summarized below.³³

- Within HHS, SAMHSA officials told us they plan to expand the availability of treatment and recovery services for adolescents and young adults through a new grant program called the Enhancement and Expansion of Treatment and Recovery Services for Adolescents, Transitional Aged Youth, and their Families. SAMHSA expects to award 31 grants by August 2018 to cover a 5-year project period (for a total of \$16 million in grants).³⁴
- Within HHS, IHS developed a pilot project in fiscal year 2018 to provide recovery services to American Indian and Alaska Native youth discharged from an IHS youth regional treatment center and has awarded \$810,000 to a tribal organization for the first year of this 3-year project. According to IHS officials, this project should help to develop promising practices to reduce substance and alcohol use relapse among American Indian and Alaska Native youth.
- Within DOJ, OJJDP established a new grant program in fiscal year 2018 to improve juvenile and family drug treatment courts. As part of this program, OJJDP officials told us they expect to award 7 grants by September 30, 2018, for this 4-year project (for a total of about \$2.8 million in grants) to existing juvenile drug treatment courts to develop and implement strategies that are consistent with DOJ's Juvenile Drug Treatment Court Guidelines.

Treatment Providers

Gaps in availability of treatment providers. Twelve of the 20 stakeholders we interviewed identified gaps in the availability of providers to treat adolescents and young adults with substance use disorders.³⁵

³³Education officials told us that the recently authorized Student Support and Academic Enrichment (SSAE) formula grant program may be used to help improve student access to recovery services. Every Student Succeeds Act, Pub. L. No. 114-95, § 4101, 129 Stat. 1802, 1968 (2015) (codified at 20 U.S.C. §§ 7111 et seq.). Beginning with the first year of funding under the SSAE program in fiscal year 2017, state educational agencies award funds to local education agencies that may in turn provide recovery services to students. Such services must be included in the local education agencies' needs assessments.

³⁴Eligible applicants for this grant include states, federally recognized tribes, and non-profit health care systems.

³⁵These stakeholders included all four state substance abuse agencies, three of four state judicial agencies, one of four state education agencies, three of four advocacy and education organizations, and one of three research organizations.

Specifically, they described a shortage of providers trained in behavioral and family therapies and in administering medication-assisted treatment, and they commented that these shortages also exist for the broader adult population. Stakeholders told us that a variety of factors contribute to the overall shortages among substance use treatment providers including low salaries, high turnover rates, state workforce shortages (especially in rural areas), and an aging workforce. An official from one research organization explained that low salaries make it difficult to attract and retain a sufficient workforce. In addition, stakeholders stated that Medicaid's reimbursement rates contribute to the shortage of treatment providers. For example, officials from one state judicial agency told us that their state's shortage of medication-assisted treatment providers is more pronounced for patients with Medicaid because providers are less willing to treat them due to Medicaid's lower reimbursement rate compared to other payers.

Some stakeholders also stated that some providers are unwilling to treat adolescents with substance use disorders, further contributing to a shortage of providers for this particular age group. Officials from one advocacy and education organization explained that some providers view adolescents as complicated to treat, because adolescents with substance use disorders tend to have co-occurring psychiatric or behavioral issues that also require treatment, and that treatment requires the involvement of their families. An official from a research organization stated that adolescents tend to require more outreach to encourage treatment adherence, such as via text and email reminders. This official also noted that such outreach is often not reimbursed by insurers. Officials from one advocacy and education organization, one research organization, and one state judicial agency also commented that a lack of training on how to deliver age-appropriate treatment services contributes to the shortage of treatment providers for adolescents. An official from one advocacy and education organization explained that while some evidence-based treatment services offer training, providers may not have sufficient funding to take such training.

Federal response and efforts to help address gaps in the availability of treatment providers. Some of the federal agency officials we spoke to agreed that there are gaps in the availability of treatment providers for adolescents and young adults with substance use disorders. Three entities within two federal agencies we included in our review have

several ongoing efforts—including grant programs—to help address these gaps, as summarized below.³⁶

- Within HHS, SAMHSA officials said that the agency’s existing grant programs help support an increase in the number of qualified treatment providers for adolescents and young adults, such as the Cooperative Agreements for Adolescents and Transitional Aged Youth Treatment Implementation and the State Targeted Response to the Opioid Crisis grant program, as described earlier.³⁷ The officials also noted that states and territories have used grant funds from the State Targeted Response to the Opioid Crisis program to provide treatment to about 2,800 adolescents (aged 17 and under) with opioid use disorders, according to grantees’ fiscal year 2017 mid-year reports.³⁸ Further, SAMHSA officials said that they provide training modules on medication-assisted treatment and adolescents for physicians, nurse practitioners and physicians’ assistants through SAMHSA’s Providers Clinical Support System.³⁹
- Within HHS, IHS officials told us that the agency has ongoing recruitment and retention efforts to address the shortage of treatment providers for American Indian and Alaska Native adolescents and young adults, such as collaborations with two social work schools to provide student internships and post-graduate placements in the field of behavioral health.
- Within DOJ, OJJDP officials stated that they plan to gather information about the availability of treatment providers from the juvenile drug treatment courts that received awards through their

³⁶OJJDP officials stated that while some court officials have told them about a lack of available treatment providers for adolescents, they do not know the extent to which this shortage is widespread.

³⁷Officials from two state substance abuse agencies told us they are using funds from their Cooperative Agreements for Adolescent and Transitional Aged Youth Treatment Implementation to conduct workforce planning and implement training for providers that treat adolescents and young adults with substance use disorders.

³⁸SAMHSA’s State Targeted Response to the Opioid Crisis grant program is a part of HHS’s ongoing efforts to increase the number of medication-assisted treatment providers. For more information about these efforts, see [GAO-18-44](#).

³⁹The mission of SAMHSA’s Providers Clinical Support System is to increase providers’ knowledge and skills in the prevention, identification, and treatment of substance use disorders with a focus on opioid use disorders.

fiscal year 2017 grant program to better understand the extent to which such courts are experiencing shortages.

Sub-populations Served

Gaps in prevention services targeted to certain sub-populations.

Seven of the 20 stakeholders we interviewed identified gaps in the availability of substance use prevention services that are tailored to specific groups of both adolescents and young adults.⁴⁰ For example, 1 stakeholder said there were not enough substance use prevention services for young adults who were neither employed nor in college, explaining that those young adults were difficult to access. Other groups of adolescents and young adults that stakeholders identified as having too few substance use prevention services include those in American Indian communities and those who are lesbian, gay, bisexual, or transgender, whom officials from one state substance abuse agency said were identified through epidemiologic data as being at elevated risk for substance use. These officials told us that because of gaps in tailored services they must rely on broader substance use prevention services intended for the general population, which may be less effective for specific groups of adolescents and young adults. This is because broader prevention services may be insufficiently relevant to the unique cultures or circumstances of those groups, according to the officials.

Federal response and efforts to help address gaps in targeted prevention services. Federal agency officials we spoke to generally acknowledged that there are gaps in substance use prevention services targeted to certain populations. Officials from ONDCP acknowledged that it would be beneficial for communities to develop additional tailored prevention services, and stated that community coalitions funded by the Drug-Free Communities Program are well-suited to provide these types of tailored services. During our review of HHS's NIDA-funded research projects that were active as of October and November 2017, we found multiple projects focused on substance use prevention services tailored for certain groups, such as American Indian adolescents, and for adolescents and young adults who are lesbian, gay, bisexual, or transgender.⁴¹

⁴⁰These stakeholders included three of four state substance abuse agencies, two of five advocacy and education organizations, and two of three research organizations.

⁴¹For example, one project involved evaluating an after-school substance use prevention intervention for sixth graders in three American Indian communities.

Information about
Effectiveness

Gaps in information about the effectiveness of prevention services.

Five stakeholders also identified gaps in the availability of information about the effectiveness of substance use prevention services.⁴² Evidence-based services are those that have had their effectiveness supported through scientific studies, and SAMHSA requires the use of evidence-based services in several of the grant programs included in our review. Until recently, SAMHSA used its National Registry of Evidence-based Programs and Practices to inform the public and guide decisions about the selection of services. However, officials from two state substance abuse agencies expressed a desire for SAMHSA to offer clearer information about what services should qualify as evidence-based. Officials from one of these state substance abuse agencies told us it was sometimes difficult to ascertain what constitutes an effective service, and that having clearer and more detailed information from SAMHSA about the evidence supporting the effectiveness of services would help them understand which services are more likely to prevent substance use within certain populations.

Federal response and efforts to help address gaps in information about the effectiveness of prevention services. Some agency officials we spoke to acknowledged that there are gaps in information about the effectiveness of substance use prevention services. ONDCP officials said that making more information available about the effectiveness of substance use prevention services would be especially helpful for states and community coalitions so they could better select which services to implement. During the course of our review, HHS's SAMHSA issued a statement recognizing deficiencies in its National Registry of Evidence-based Programs and Practices.⁴³ In April 2018, SAMHSA launched a website as part of a new approach for identifying and disseminating evidence-based policies, practices, and programs, according to officials. This website (called the Evidence-Based Practices Resource Center) provides toolkits, guidance documents, and other resources that SAMHSA officials said will help practitioners in community and clinical

⁴²These stakeholders included two of four state substance abuse agencies, two of five advocacy and education organizations, and one of three research organizations.

⁴³Substance Abuse and Mental Health Services Administration, *Statement of Elinore F. McCance-Katz, MD, PhD, Assistant Secretary for Mental Health and Substance Use Regarding the National Registry of Evidence-Based Programs and Practices and SAMHSA's New Approach to Implementation of Evidence-Based Practices (EBPs)* (January 11, 2018), accessed April 12, 2018, <https://www.samhsa.gov/newsroom/press-announcements/201801110330>.

settings better understand the evidence base for substance use prevention, treatment, and recovery services.⁴⁴

Stakeholders Identified Gaps in Research, Such as for Adolescent-Specific Substance Use Treatment Services, and in Recovery Services for both Adolescents and Young Adults

Stakeholders that we interviewed commonly identified gaps in research concerning adolescent-specific substance use treatment approaches, as well as in recovery services for both adolescents and young adults. They also identified other gaps, such as a lack of knowledge about how to effectively communicate to adolescents and young adults the harms of substance use. Officials from HHS's NIDA agreed that such gaps in research exist.

Gaps in substance use research related to adolescents and young adults. Stakeholders commonly identified the following gaps in research:

- **Substance use disorder treatment with adolescents.** Four of the stakeholders we interviewed identified gaps in adolescent-specific substance use disorder treatment research.⁴⁵ Officials from one research organization said that it can be challenging to recruit a sufficient number of adolescents with a substance use disorder to participate in research studies focused on substance use treatment, both because fewer adolescents have such disorders compared to adults, and because adolescents—or potentially their parents—may be in denial about the need for treatment. These officials further stated that having too few funding announcements that focus on adolescent-specific research contributes to the gaps in research in this area, because it is easier for researchers to simply work with adults when announcements do not specify an age group of interest. An official from another research organization said there is also a gap in knowledge about how to deliver treatment services to adolescents in ways that are developmentally appropriate. The official stated that adolescents who receive treatment services generally are less likely to complete substance use disorder treatment, and, as a result, additional research is needed to identify how to engage and retain adolescents in a developmentally appropriate way. The

⁴⁴For the Evidence-Based Practices Resource Center website, see <https://www.samhsa.gov/ebp-resource-center>, accessed May 1, 2018.

⁴⁵These stakeholders included two of five advocacy and education organizations and two of three research organizations.

official explained that adolescents often do not believe they need treatment and are not certain they want to stop using substances.

- **Recovery services.** Three of the stakeholders we interviewed identified gaps in recovery service research for adolescents and young adults.⁴⁶ Officials from one advocacy and education organization said there has been little research conducted to determine the types of recovery services that are most effective for adolescents in preventing relapse. Officials from one research organization said that it would be beneficial to develop a variety of recovery services, since services are likely to vary in effectiveness for different groups of adolescents and young adults.⁴⁷
- **Translating research into practice.** Three of the stakeholders we interviewed identified gaps in knowledge about how to translate evidence-based services from research into sustainable, real world practices.⁴⁸ For example, an official from one research organization explained that translating evidence-based treatment services from research into real world settings can be difficult for a variety of reasons—such as, because services that are grant-funded may have components that are impractical to implement or are not reimbursable. The official said one example of such an impractical component would be having an expert observer periodically rate the fidelity of providers' implementation of the service—a component that makes sense when testing the efficacy of the service under the grant, but which can be disruptive to workflow and may not be reimbursable by insurers once the grant ends. Officials from another research organization similarly commented that more research is needed to identify which components of services make them effective.
- **Communicating harms of substance use.** Officials from two of the three research organizations identified a gap in knowledge

⁴⁶These stakeholders included two of five advocacy and education organizations and one of three research organizations.

⁴⁷The 2016 Surgeon General's report explained that services—including prevention, treatment, and recovery—may not work well for all groups if they are insufficiently sensitive, culturally or otherwise, to the unique stressors, resources, cultural traditions, family practices, and other prevailing sociocultural factors that govern the lives of residents of a particular community. See U.S. Department of Health and Human Services, Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health* (Washington, D.C.: November 2016).

⁴⁸These stakeholders included two of three research organizations and one of five advocacy and education organizations.

about how to effectively communicate the harms of substance use to adolescents and young adults. They stated that it is particularly difficult to effectively communicate the harms of cannabis to adolescents and young adults. One official explained that societal changes in attitudes towards cannabis have made it more difficult to convince adolescents of both its harm and of the need for treatment when its use develops into a substance use disorder.

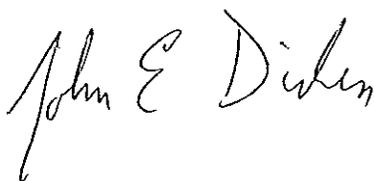
Federal response to gaps in research. Officials from NIDA agreed that these gaps in research exist and explained that while additional research is needed to address them, the process by which NIDA funds research through grants ultimately relies on researchers to submit proposals for consideration. While NIDA officials stated that researchers can submit proposals for research projects addressing adolescent or young adult substance use prevention, treatment, or recovery under general funding announcements for grants, NIDA also had eight funding announcements (as of May 2018) that either focused on these age groups or included them as a population of interest, three of which were new as of fiscal year 2018.

Agency Comments

We provided a draft of this report to HHS, DOJ, ONDCP, and Education for comment. HHS, DOJ, and ONDCP provided technical comments, which we incorporated as appropriate. Education did not have comments on our draft.

We are sending copies of this report to the appropriate congressional committees; the Secretaries of the Departments of Health and Human Services, Justice, and Education; the Director of the Office of National Drug Control Policy; and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-7114 or dickenj@gao.gov. Contact points for Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.

A handwritten signature in black ink that reads "John E. Dicken". The signature is written in a cursive style with a large, stylized 'J' and 'D'.

John E. Dicken
Director, Health Care

Appendix I: The Use of Substance Abuse Prevention and Treatment Block Grant Funds for Adolescents and Young Adults

Table 4 shows the percentage of persons who were provided services with Substance Abuse Prevention and Treatment Block Grant funds in 2014, and who were also identified by grantees as being adolescents or young adults. Percentages are listed for two broad types of substance use prevention services (individual and population-based), as well as substance use disorder treatment and recovery services. Substance Abuse Prevention and Treatment Block Grant grantees include states, territories, and one federally recognized tribe.

Table 4: The Percentage of Persons Provided Prevention, Treatment, and Recovery Services with Substance Abuse Prevention and Treatment Block Grant Funds Reported as Adolescents or Young Adults, by Grantee, 2014

Grantee	Individual-based prevention services ^a	Population-based prevention services ^b	Treatment and recovery services ^c
Alabama	26.9	28.6	21.0
Alaska	26.3	20.9	18.5
American Samoa	100.0	42.4	44.9
Arizona	—	—	20.8
Arkansas	16.7	24.4	22.1
California	65.2	18.9	25.9
Colorado	45.3	23.7	25.7
Connecticut	34.2	35.5	12.0
Delaware	35.7	40.1	77.9
District of Columbia	N/A	N/A	8.4
Florida	60.4	39.7	39.3
Georgia	18.5	9.2	13.7
Guam	45.4	23.0	21.7
Hawaii	33.0	46.1	59.1
Idaho	47.2	18.1	17.0
Illinois	73.2	6.1	20.5
Indiana	65.9	0.1	23.1
Iowa	39.5	34.6	30.4
Kansas	42.1	18.5	28.0
Kentucky	21.1	5.9	43.3
Louisiana	33.0	57.1	19.6
Maine	21.7	N/A	16.6
Marshall Islands	90.5	93.1	81.6
Maryland	33.1	40.7	15.2
Massachusetts	—	3.9	16.8
Michigan	47.8	0.4	16.8

**Appendix I: The Use of Substance Abuse
Prevention and Treatment Block Grant Funds
for Adolescents and Young Adults**

Grantee	Individual-based prevention services^a	Population-based prevention services^b	Treatment and recovery services^c
Micronesia	66.1	66.1	25.2
Minnesota	30.3	7.1	22.8
Mississippi	78.2	49.5	23.3
Missouri	15.1	22.6	20.5
Montana	10.3	2.3	24.6
Nebraska	35.1	27.3	22.1
Nevada	5.1	47.2	23.1
New Hampshire	19.9	15.4	19.0
New Jersey	30.6	59.8	21.8
New Mexico	54.9	17.6	16.7
New York	33.5	19.8	20.3
North Carolina	13.3	13.2	20.7
North Dakota	N/A	0.0	26.3
Northern Marianas	76.9	76.9	14.9
Ohio	22.8	41.4	25.1
Oklahoma	0.1	1.0	23.4
Oregon	14.9	17.7	19.3
Palau	94.4	18.7	51.2
Pennsylvania	33.5	36.8	21.6
Puerto Rico	17.4	67.6	15
Red Lake	64.2	72	100
Rhode Island	99.8	99.9	9.3
South Carolina	32.0	32.0	26.9
South Dakota	66.4	74.4	27.8
Tennessee	52.4	5.6	17.3
Texas	46.2	19	26.6
Utah	34.8	49.4	26.1
Vermont	0.9	19.7	22.4
Virgin Islands	100	100	18.3
Virginia	37.9	21.6	22.3
Washington	52.2	27.7	26.6
West Virginia	60.9	0.8	15.1
Wisconsin	41.6	32	16.4
Wyoming	23.6	24.3	25.1

Legend

— = missing data for the number of persons served

N/A = missing data for the number of adolescents and young adults served

**Appendix I: The Use of Substance Abuse
Prevention and Treatment Block Grant Funds
for Adolescents and Young Adults**

Source: GAO analysis of Substance Abuse and Mental Health Services Administration data for the Substance Abuse Prevention and Treatment Block Grant | GAO-18-606

Notes: We analyzed data that grantees submitted to the Substance Abuse and Mental Health Services Administration. We calculated percentages by dividing the number of persons identified as adolescents and young adults by the total number of all persons served. Grantees could not always identify the ages of the individuals being served, and we included in the denominator the number of persons served even if their ages were unknown. As a result, actual percentages for some grantees may be higher.

^aIndividual-based prevention services include various programs and strategies that are designed to change behavior such as school-based prevention programs. Data reflect services provided in calendar year 2014 and reflect the percentage of persons served who were reported as being aged 12 through 24. Arizona and Massachusetts did not report the number of persons provided individual-based prevention services. The District of Columbia and North Dakota reported the number of persons served but not the ages for persons served.

^bPopulation-based prevention services include various programs and strategies with identified outcomes such as media campaigns that are used to communicate information about the harms of substance use. Data reflect services provided in calendar year 2014 and reflect the percentage of persons served who were reported as being aged 12 through 24. Arizona did not report the number of persons provided population-based services. The District of Columbia and Maine reported the number of persons served but not the ages for persons served.

^cTreatment and recovery services include a variety of services, such as medication-assisted treatments that are used to treat individuals with opioid use disorders, and peer recovery services. Data reflect services provided in fiscal year 2014 and reflect the percentage of persons served who were reported as being aged 24 and under.

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

John E. Dicken, (202) 512-7114 or dickenj@gao.gov

Staff Acknowledgments

In addition to the contact named above, Gerardine Brennan, Assistant Director; Pamela Dooley, Analyst-in-Charge; Spencer Barr; and Brandon Nakawaki made key contributions to this report. Also contributing were Kaitlin Farquharson, Derry Henrick, and Laurie Pachter.

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