ASPE
ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

ISSUE BRIEF

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U.S. Department of Health and Human Services Overdose Prevention Strategy

KEY POINTS

- The overdose crisis is largely driven by synthetic opioids, predominantly illicitly manufactured fentanyl. Drug overdoses involving psychostimulants such as methamphetamine are also increasing, both with and without synthetic opioid involvement.
- The public health burden of drug overdose expands far beyond the devastating impact of overdose deaths to other consequences of substance use disorders (SUDs), including nonfatal overdose. The human cost of this crisis also has a radiating impact on families, caregivers, and communities.
- Given the changing face of the crisis and escalating harms, including during the COVID-19 pandemic, the U.S. Department of Health and Human Services (HHS) is releasing a new, comprehensive, resourced Overdose Prevention Strategy to strengthen our primary prevention efforts and increase access to the full continuum of care and services for individuals with SUD and their families.
- Experts across HHS came together to leverage the best evidence to prioritize four key target areas for the strategy: primary prevention, harm reduction, evidence-based treatment, and recovery support.
- The strategy embodies HHS's reinvigorated efforts to strengthen prevention and treatment, as well as its more recent commitment to robust harm reduction and recovery support services. The strategy recognizes that addressing the overdose crisis requires a multifaceted and integrated approach spanning public health, health care, human services, and many other sectors.
- The HHS Overdose Prevention Strategy reflects the Biden-Harris Administration principles of equity for underserved populations and evidence-based policy by being more inclusive of all populations affected. It also prioritizes translating research into equitable practice, and it identifies ways to further our understanding of how to mitigate overdose harms.

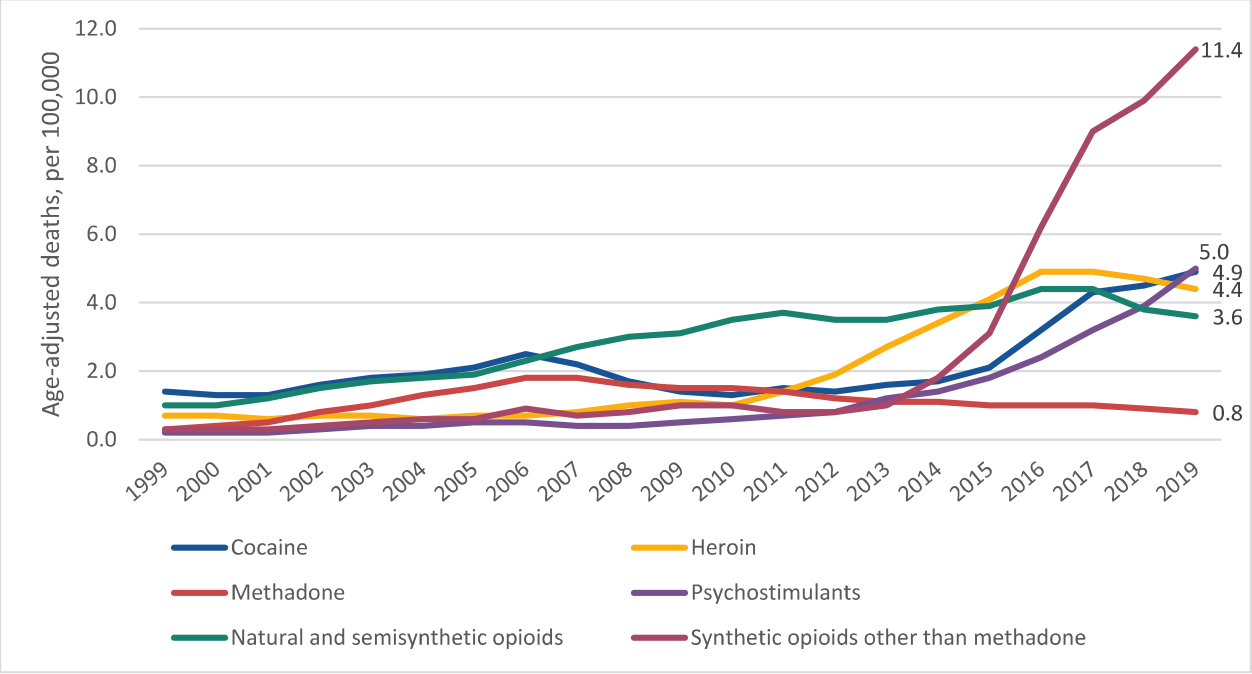
INTRODUCTION

From 1999 through 2019, there were more than 840,000 drug overdose deaths in the United States.[1] The crisis has continually evolved and escalated, including during COVID-19, when an estimated 93,000 persons lost their lives to drug overdose in 2020--approximately a 30% increase over the year prior.[2] In response to the devastating human toll of SUDs and overdose, HHS is redoubling its work and bringing the best science and evidence to bear to respond to the crisis.

The history of substance use in the U.S. is long, complex, and characterized by changing patterns of use. Overdose deaths have increased exponentially since at least 1980, driven by different substances at different times.[3] The overdose crisis of the twenty-first century began as primarily a prescription opioid crisis, but now is more accurately characterized as a polysubstance overdose crisis, as depicted in Figure 1. The late 1990s and first decade of the 2000s saw increased opioid prescriptions followed by increased overdose deaths from

natural and semi-synthetic opioids and methadone. Beginning in 2010, the U.S. saw a rapid increase in overdose deaths involving heroin. Then, starting in 2013, overdose deaths involving synthetic opioids, particularly illicitly manufactured fentanyl, rose dramatically. Today, stimulants--particularly methamphetamine, both with and without co-involvement of opioids--also play a prominent role in escalating overdoses. From 2012-2019, the rate of deaths involving psychostimulants (mainly methamphetamine) increased more than 6-fold (from 0.8 to 5.0 per 100,000).[4] Other drugs, including cocaine and benzodiazepines, also contribute notably to the crisis.

Figure 1. Drug Overdose Death Rates, United States, Selected Drug Classes: 1999-2019



Source: National Center for Health Statistics, National Vital Statistics System, Mortality, 2019.

The public health burden of drug overdose expands far beyond the devastating impact of fatal overdoses. Some estimates suggest that 20-30 non-fatal overdoses occur for every fatal overdose, and non-fatal overdose can result in permanent disability.[5] Emergency department visits and inpatient admissions involving drug misuse have escalated substantially in the past decades. For instance, the rate of emergency department visits involving nonmedical use of prescription drugs (primarily opioids) more than doubled from 214 visits per 100,000 people in 2004 to 458 in 2011; a large proportion of these visits involved at least one other drug (e.g., benzodiazepines, cocaine, or heroin).[6] More recently, emergency department visits attributable to nonfatal opioid overdose increased across six major U.S. health care systems by 10.5% in 2020 during COVID-19, as compared to 2018 and 2019--despite a 14% decline in all-cause ED visits during the same period.[7]

The societal cost of this crisis is substantial and has a radiating impact on families, caregivers, and communities. Studies estimating the total cost of the opioid crisis alone vary.[8,9] Those that include the value of lost lives (e.g., foregone labor, criminal justice costs, and noneconomic costs) in addition to health care costs find annual costs on the order of half a trillion dollars.[10]

The overdose crisis does not look the same in every community or for every individual. Because of geographic differences in the types of drugs most commonly consumed, communities see variation in the proportion of overdoses and related harms attributed to any given drug.[11] Methamphetamine use and related harms, for example, has historically been more common in the West and Midwest, while overdoses involving synthetic opioids were more concentrated in the Northeast.[12] Between 2018 and 2019, however, the West experienced

the largest relative increase in synthetic opioid overdoses and the Northeast experienced the largest relative increase in psychostimulant-related deaths, illustrating the dynamic regional differences in the crisis.[13] Rural areas and certain geographic regions also face more pronounced shortages of many forms of SUD treatment compared to urban areas.[14,15]

In recent years there have been marked increases in overdose deaths among racial and ethnic minority populations,[16] who are also more likely to face barriers in accessing equitable treatment and recovery services.[17] Between 2012 and 2018, the annual percentage change in opioid overdose for African Americans surpassed that for Whites in the U.S.[18] The increases during this period were largest for older non-Hispanic Black men and women (50 or older and 45 or older, respectively).[19] The crisis is further complicated for underserved populations by social determinants of health that contribute to chronic and acute life stresses that interact with SUDs, as well as co-occurring mental and physical health conditions, that complicate SUD treatment (e.g., complex chronic pain). Criminal history and socioeconomic status have been identified as mechanisms underlying race/ethnic differences in receipt of SUD treatment. According to national data, the odds of receiving specialty SUD treatment among Latinos with SUD, for example, were less than half of those for Whites after adjusting for criminal history and socioeconomic status.[20] The same study identified similar Black-White disparities in SUD treatment. In another study of publicly funded SUD treatment programs, Black and Hispanic people were less likely than Whites to complete treatment; these differences were also largely explained by socioeconomic factors such as unemployment and housing instability.[21]

Additional complications of the current overdose crisis warrant urgent attention. Shifts in drug supply and use patterns referenced above make surveillance, prevention, and treatment more complex.[22] Another concern is the separation of SUD care from other health services, harm reduction interventions, and recovery supports, and the resulting lack of integrated care delivery.[23,24] Finally, persistent stigma associated with drug use inhibits effective prevention, treatment, and recovery for SUD.

DEVELOPMENT OF THE OVERDOSE PREVENTION STRATEGY

At the direction of the Secretary of HHS, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) convened an interagency workgroup of key HHS experts in overdose prevention and SUDs to develop a new strategy to address the evolving nature of the broadened overdose crisis.

HHS's updated plan focuses on SUD-related issues across the lifespan and stages of drug use, and it was constructed within the changing environment of the COVID-19 pandemic. Its components also reflect many of the priorities outlined in the Biden-Harris Administration's Statement of Drug Policy Priorities for Year One.[25] Addressing the various components of the overdose crisis requires a multifaceted and integrated approach involving agencies across HHS. In addition to continuing longstanding HHS efforts to support prevention and treatment for the types of substance use that are heavily connected to overdose risk, the new strategy places equal emphasis on HHS-wide efforts to expand accessible services and supports for those in or seeking recovery, and also to intervene early to reduce the risk for harm among people who are actively using substances.

The newly developed Overdose Prevention Strategy ("Strategy") consists of four priority areas: (1) primary prevention; (2) harm reduction; (3) evidence-based treatment; and (4) recovery support. In addition, the Strategy is guided by the cross-cutting principles of enhancing equity; improving coordination, collaboration, and integration across government and relevant service sectors; using the best available science to guide actions, while identifying research gaps and needs; and reducing the stigma associated with substance use, which has always been a significant barrier to progress.

The priority areas and cross-cutting guiding principles are outlined in Figure 2 and explained in further detail in the next section. Within each priority area, the Strategy identifies specific *objectives* for decreasing overdoses and their related harms. For each objective, in turn, there is an accompanying list of supporting key *activities* that HHS is undertaking to achieve these goals and objectives. The activities highlighted with the Strategy are by no means exhaustive of HHS's efforts to address overdose risk; they are, however, representative of high impact efforts expected to yield measurable results.

GUIDING PRINCIPLES

Each priority area of the Strategy is underpinned by the following cross-cutting guiding principles.

Equity

The overdose crisis is characterized by stark disparities, in which rural populations, racial/ethnic minorities, pregnant people and mothers, and other historically underserved groups face heightened overdose-related harms and barriers to accessing treatment, services, and supports.[26] In 2019, for example, Native Americans and Alaska Natives had a higher drug overdose death rate than any other racial or ethnic group.[27] The rate of overdose deaths among non-Hispanic Black Americans more than tripled between 2010 and 2019, but Black Americans are still less likely to receive SUD treatment than White Americans.[28] Maximizing health equity for disproportionately affected populations is therefore an essential component of each priority area, objective, and activity. Strategy activities will include efforts to increase the availability of culturally competent care, to address underlying social determinants of health that increase overdose risk, and to provide evidence-based SUD treatment to heavily impacted urban and rural populations. This emphasis on equity is also consistent with the Biden-Harris Administration's commitment to achieving more equitable outcomes for underserved and marginalized populations.[29,30,31,32]

Data and Evidence

Research, data, evaluation, and translation are critical components to each priority area in the Strategy. To be effective, policies must be informed by strong evidence and revised in response to new evidence, and data must be available to measure, monitor, and track patterns, trends, and progress. This is particularly important given the rapidly evolving nature of the overdose crisis, including changes in the types of substance involved and communities at greatest risk.[33,34] Evidence of sharp recent increases in fentanyl overdoses in Western states, for example, have informed policy efforts and public health messaging about the appropriate use of fentanyl test strips and the need for multiple naloxone doses in the event of an overdose.[35,36] At the same time, we must identify what gaps exist in our current understanding of what works to effectively address the overdose crisis. Through HHS's substantial research agenda, we are elevating robust research for implementation and filling knowledge gaps--for instance, in identifying and translating into practice effective treatments for stimulant use disorders.

Coordination, Collaboration, and Integration

Lack of coordination among programs and activities, lack of collaboration across practice areas, and disconnected care and services systems all serve as barriers to implementing and sustaining effective policies, programs, and practices to address overdose. The lack of integration of SUD interventions into general health care settings--and even the specialty mental health care sector--is a longstanding contributor to difficulties in addressing these conditions, particularly given the shortage of specialty SUD treatment providers.[37,38,39] For example, despite the high burden of co-occurring mental health conditions among people with SUD and their contribution to poorer treatment and health outcomes, only 10%-30% of individuals with these co-occurring disorders receive treatment for both.[40,41] Similarly, the isolation of harm reduction services and recovery supports away from health care settings limits access to the full continuum of SUD care and hinders coordination between care providers.[42,43,44] Accordingly, within each priority area, HHS's Strategy seeks to

break down barriers that separate SUD services from other health and human services, and that separate public health approaches from public safety approaches.[45,46]

Reducing Stigma

Stigma surrounding substance use discourages people with SUDs from seeking and accessing the services they need, contributes to inadequate investment in and quality of care for people with SUDs, and fuels negative attitudes towards people who use substances resulting in discrimination.[47,48] Stigma can then become embedded into laws and policies that hinder efforts to expand access to evidence-based treatment and harm reduction services.[49] Punitive policies towards pregnant women with SUDs--which are actually associated with an increased risk of neonatal abstinence system, potentially by discouraging pregnant women from seeking care--are an example of the counterproductive effects of stigma.[50,51] HHS has worked over the past decade to better understand the manifestations and impacts of stigma, notably through past collaborative work with the National Academies of Sciences that describes stigma as "a dynamic multidimensional, multilevel phenomenon that occurs at three levels of society--structural (laws, regulations, policies), public (attitudes, beliefs, and behaviors of individuals and groups), and self-stigma (internalized negative stereotypes)."[52] To address this, activities in each priority area will include efforts to reduce false perceptions about SUD, related treatments and people who use drugs, including through evidence-informed public awareness and education campaigns.

Figure 2. HHS Overdose Prevention Strategy: Priority Areas

PRIORITY AREAS

Primary Prevention

PRIMARY PREVENTION: OBJECTIVES

- Support research and surveillance to develop and improve delivery of prevention interventions.
- Facilitate the implementation of evidence-based primary prevention across the lifespan.
- Support development of and promote evidence-based treatments to effectively manage pain.
- Reduce clinically inappropriate prescribing of medications with misuse potential.

Preventing substance use and SUDs is critical to reducing the number of overdoses and overdose deaths. In 2020, approximately 40.3 million people aged 12 or older had a SUD in the past year.[53] Although substance use can begin at any age and risk factors may vary across age groups, the adolescent years are particularly critical at-risk periods. Young adults aged 18-25 are more likely to use illicit substances and are more likely to think substance use is not harmful than other age groups.[54] Research also shows that the majority of adults who meet the criteria for having an SUD started using substances during their teen and young adult years.[55] Evidence-based prevention efforts have been shown to reduce the negative consequences of substance use during young adulthood.[56] Primary prevention is also important in adults, as developmental and life stressors unique to different stages of adulthood can also put some individuals at greater risk of an SUD.[57]

This priority area supports a tiered approach to prevention, including population-level strategies as well as targeted interventions aimed at high-risk individuals. For example, the Substance Abuse and Mental Health Administration (SAMHSA) Strategic Prevention Framework for Prescription Drugs program raises community awareness and advances prescription drug misuse prevention activities and education to schools, communities, parents, prescribers, and their patients. The Food and Drug Administration's (FDA) regulatory work includes updated requirements to warn Americans about the serious risks associated with benzodiazepines, especially when combined with other medications such as opioid pain relievers, alcohol, or illicit drugs, and consideration of mandatory prescriber education via the Opioid Analgesic Risk Evaluation and Mitigation Strategy. Since adolescents exposed to substances are particularly vulnerable to developing a SUD, the National Institute on Drug Abuse's (NIDA's) Adolescent Brain and Cognitive Development (ABCD) Study is tracking the biological and behavioral development of nearly 12,000 adolescents into young adulthood and is poised to produce detailed risk and protective factor profiles to improve SUD prevention.

Multidisciplinary prevention activities are necessary to address the biological, behavioral, social, and environmental risk and protective factors that impact substance use and SUDs. Accordingly, prevention activities in the Strategy not only engage health and human services providers directly--for instance, the Centers for Medicare & Medicaid Services' (CMS's) Prescriber Outreach educates and provides outreach to prescribers around best practices for prescribing opioids and about non-opioid pain management--but also facilitate cross-sector collaboration on prevention by investing in data infrastructure. An example of this is the Centers for Disease Control and Prevention's (CDC's) Preventing Adverse Childhood Experiences (ACEs): Data to Action program, which is designed to build state-level surveillance infrastructure that ensures the capacity to collect, analyze, and use ACEs data to inform ACEs prevention activities which can have lasting protective effects against substance use and other health-risk behaviors. In addition, CDC's Overdose Data to Action (OD2A) initiative supports innovative and critical surveillance through the collection of comprehensive data on nonfatal and fatal overdoses to inform prevention and response efforts.

Harm Reduction

HARM REDUCTION: OBJECTIVES

- Advance research and demonstrations on innovative harm reduction approaches.
- Promote evidence-based harm reduction services, including those that are integrated with health care delivery.
- Expand sustainable funding strategies for harm reduction services.
- Develop educational materials and programs to reduce stigma.

All people deserve services that promote health and wellness, regardless of whether they use drugs or other substances. It is crucial to acknowledge that people fall on a continuum in terms of their readiness for change[58] and to reverse the increasing rates of overdose we must craft policy and interventions that address each stage. Evidence-based harm reduction strategies can cost-effectively minimize negative consequences of drug use. For example, a recent study from rural Kentucky found that providing clean syringes to people who use drugs via injection (syringe services programs) significantly reduced the transmission of infectious disease such as HIV, hepatitis and endocarditis.[59] Furthermore, three decades of NIDA-funded research demonstrate that syringe services programs are safe, effective, cost-saving, and are not associated with increases in crime or drug use.[60] Distributing Naloxone to communities to reverse opioid overdoses and co-prescribing it when opioid medications are dispensed are other high impact harm reduction interventions; HHS resources and actions have been instrumental in deploying Naloxone widely across the U.S. In addition to specific harm reduction practices, it is also an approach that, supports an environment that challenges stigma; incorporates the culture, language, and beliefs of the community served; and meets people where they are in terms of their drug use patterns. For people with SUD who do not receive specialty SUD treatment (97.5% of whom do not perceive any need for treatment),[61] harm reduction lessens health risks and overdose harms.[62]

The Strategy reflects HHS's commitment to promoting harm reduction across its programs. It extends recent notable HHS harm reduction efforts, such as the Substance Abuse and Mental Health Services Administration (SAMHSA) and CDC's April 2021 announcement that certain federal grant funds can be used to purchase fentanyl test strips,[63] which some people use to avoid or take additional precautions when using drugs adulterated with fentanyl.[64,65] HHS recognizes the need for additional work to mitigate the risks associated with drug use, and therefore this priority area supports further expanding access to a broader array of harm reduction interventions and better integrating harm reduction principles and practices into specialty SUD treatment and general medical care.

Examples of activities within this priority area include the National Institute of Health's (NIH's) Comprehensive HIV Services in syringe services program settings, which will support research to develop and test intervention models for syringe services programs; SAMHSA's Harm Reduction Grants, which will support community-based overdose prevention programs, syringe services programs, and other harm reduction services; and CDC's Rx Awareness Campaign, which promotes awareness of the impacts of prescription opioid misuse and overdose through storytelling, and emphasizes that support is available for people with OUD. Recent campaign messaging has also focused on fentanyl as well as stigma around substance use disorder. FDA and NIH are also collaborating to collect community and clinical input on utilizing fentanyl test strips.

Evidence-Based Treatment

EVIDENCE-BASED TREATMENT: OBJECTIVES

- Support research on and development of new treatments and strategies to improve engagement and retention in care.
- Broaden access to evidence-based care that increases willingness to engage in treatment.
- Increase the uptake of evidence-based treatment delivery that improves engagement and retention in care.
- Promote evidence-based integrated care for people with co-occurring conditions across lines of service and care settings.

Availability of treatment for those who develop SUD is essential to reducing the negative health and social consequences of substance use, including death from overdose. For example, medications for opioid use disorder (MOUD) can reduce opioid use, overdose deaths, and infectious disease transmission, as well as increase social functioning and retention in treatment.[66] However, data show that only 1 in 15 people with a SUD receive any type of specialty treatment, which is unchanged from recent years.[67] While there are many who need treatment but are not seeking it, high-quality treatment must be available without delay for those who decide to seek treatment. At present, however, finding and entering treatment remains far too challenging for a variety of reasons such as cost, lack of health insurance, and stigma.[68] For those who do find it, treatment quality is extremely variable, and retention remains low among those who initiate treatment.[69]

In addition, despite rising overdoses involving stimulants, access to evidence-based treatments for stimulant use disorder--especially contingency management--remains inadequate, and there are currently no approved medications for the treatment of stimulant use disorders, or for the reversal of stimulant overdose. Although evidence-based treatment exists, there is a lack of knowledge about how to implement them in communities across the country.[70] The evidence-based treatment priority area in the Strategy focuses on reducing barriers to accessing effective treatments, using motivational and cultural enhancements to encourage people who might be reluctant to seek treatment, advancing strategies to improve engagement and retention, and continuing to develop new therapeutic approaches. A major opportunity to enhance access to evidence-based treatment is the potential improvement of the integration of SUD treatment with primary care and specialty mental health care.

Key examples of current work to advance this priority area include the Justice Community Opioid Innovation Network (JCOIN) at NIH, which seeks to advance knowledge about optimal approaches to treat OUD in criminal justice settings, and to sustain quality care after community reentry. Another example is the Health Resources and Services Administration's (HRSA's) Rural Community Opioid Response Program, which brings more evidence-based treatment to rural communities that often lack access to high quality treatment despite having disproportionately high need. HHS also recently issued practice guidelines to reduce barriers to MOUD by removing training, counseling, and other ancillary service requirements for health care providers to treat up to 30 people at a time.[71] FDA and NIH are also collaborating on supporting development of treatments for stimulant use disorder. CMS is working to advance care for mothers and infants with the Maternal Opioid Misuse demonstration model that advances high-quality care for participating pregnant and postpartum Medicaid beneficiaries with OUD through the provision of coordinated and integrated physical and behavioral health care services. NIDA is seeking to identify and develop new treatments for stimulant use disorder through both its Medications Development Program and its National Drug Abuse Treatment Clinical Trials Network, including a recent study with promising findings on a potential combination medication treatment option.[72]

Recovery Support

Treatment alone may not be enough to support long-term recovery. According to SAMHSA, recovery "is a process of change through which people improve their health and wellness, live self-directed lives, and strive to reach their full potential."[73] For many people with SUD, recovery support services help them by bolstering their recovery capital--the range of resources that enable someone to be in recovery.[74]

RECOVERY SUPPORT OBJECTIVES

- Enable access to and encourage use of recovery support services.
- Improve the quality of recovery support services.
- Strengthen the recovery support services workforce.
- Research and identify best practices for recovery support services and strategies to sustain these services.

Recovery looks different to different people and recovery support services must be flexible and strive to meet the individual where they are, taking into account an individual's beliefs, practices, and culture.[75] Many of the resources targeted by recovery support services are characterized as social determinants of health, including housing, education, employment, and social connection. Studies have found that recovery support services such as peer support services and recovery housing are associated with a variety of positive outcomes, including greater retention in treatment, lower rates of substance use recurrence, and more employment.[76,77] Provision of these supports foster an environment in which recovery can be sustained and quality of life improved. Sustaining recovery for individuals with SUD is a lifelong process and needs close collaboration with a multidisciplinary care team.[78]

Despite the promising evidence of many types of recovery support services, various challenges impede their availability and uptake, and many recovery support services could benefit from additional study and evidence-building.[79] CMS has made efforts to address recovery through its Value in OUD Treatment Demonstration, which consists of an alternative payment model that allows certain Medicare funds to be used for services that are not typically covered in its programs, such as peer support services, recovery housing, job training, and nutrition support.[80] A lack of readily available information on evidence-based implementation of recovery support services necessitates development and dissemination of resources. SAMHSA is promoting high-quality implementation through the Peer Recovery Center of Excellence, which provides training and technical assistance on topics such as clinical integration of peer support specialists and enhancing the capacity of recovery community organizations.

Strengthening the recovery support services workforce is essential to promoting access and quality. HRSA's Behavioral Health Workforce Education and Training Program for Paraprofessionals is expanding the recovery support services workforce by funding community-based training programs for peer support specialists and other paraprofessionals working in behavioral health. Furthermore, there is an ongoing need for research to inform the effective delivery of recovery support services. NIH supports a portfolio of research on topics including peer support services, recovery housing, and recovery community centers through its Research Networks for the Study of Recovery Support Services for Persons Treated with Medications for Opioid Use Disorder grants.

CONCLUSION

The Overdose Prevention Strategy is an important step forward in HHS's approach to addressing the evolving overdose crisis. The activities included within each of the four objectives--primary prevention, harm reduction, evidence-based treatment, and recovery support--represent a comprehensive set of efforts aimed at reducing morbidity and mortality related to substance use and SUD. They represent a host of new activities undertaken in this Administration, which HHS intends to build upon in the coming years.

The evolving nature of the overdose crisis demands a dynamic response. HHS will be closely tracking the implementation of the Strategy's activities over time to assess progress toward objectives. As new data and evidence emerge, HHS will update and build upon the Strategy as the science and evidence reveal best policies to pursue, including in collaboration with partners across the federal government and working with state, local, tribal, and territorial partners. HHS is steadfast in its commitment to overcoming the overdose crisis and continues to explore ways to bolster efforts to tackle this issue. All stakeholders are invited to join us in carrying out the Strategy to achieve maximum impact.

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