

Facing Addiction in America The Surgeon General Spotlight on Opioids



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Message from the Secretary, U.S. Department of Health and Human Services



he opioid misuse and overdose crisis touches everyone in the United States. In 2016, we lost more than 115 Americans to opioid overdose deaths each day, devastating families and communities across the country. Preliminary numbers in 2017 show that this number continues to increase with more than 131 opioid overdose deaths each day. The e ects of the opioid crisis are cumulative and costly for our society—an estimated \$504 billion a year in 2015—placing burdens on families, workplaces, the health care system, states, and communities.

Addressing the opioid crisis is a priority for this Administration, and the U.S. Department of Health and Human Services (HHS) is leading the public health (e)9. (e)b5 (r)-21 esnd me10

Foreword from the Assistant Secretary for Mental Health and Substance Use



fter many years combating the opioid epidemic on the front lines of addiction psychiatry, I returned to the Substance Abuse and Mental Health Services administration (SAMHSA) to do everything possible to ensure that American families and communities do not continue to lose their loved ones to opioids.

Now is the time to work together and apply what we know to end this epidemic once and for all. Medication-assisted treatment (MAT) combined with psychosocial therapies and community-based recovery supports is the gold standard for treating opioid addiction.

There is strong scienti c evidence that this combination of therapeutic interventions is life-saving and can enable people to recover to healthy lives. SAMHSA is joining forces with agencies across HHS and the federal government to increase access to these evidence-based interventions—especially in communities hardest hit by the opioid crisis. We are (1) working with states and their communities to increase access to prevention, treatment and recovery support services for opioid use disorder; (2) supporting providers' e orts to o er specialized treatment to pregnant and postpartum women with opioid use disorder and their opioid-exposed infants; (3) promoting early intervention and treatment as healthier alternatives to detaining people with opioid addiction in our criminal justice systems; (4) and facilitating the expansion of telemedicine to deliver MAT to people in need in rural communities and to enhance rural providers' skills.

To help remove the societal stigma for those seeking addiction treatment, we have implemented new changes to the federal rules governing con dentiality and disclosures of substance use disorder patient records. Our workforce e orts include support for a variety of trainings and resources to prevent over prescribing and diversion of prescription medications and initiatives to increase the number of quali ed health care providers who can o er treatment for opioid use disorder. In the crucial area of overdose prevention, we are increasing the distribution of naloxone and expanding training to rst responders, prescribers, patients, employers, and family members on how to administer this live-saving antidote.

With the O ce of the Surgeon General, SAMHSA has produced **Spectlight** on Opioidsa document that o ers practical information and guidance that individuals and systems can use to take action. I urge you to use it as a resource as you consider what you can do to help end this crisis and save lives. Inside and outside of government, at the national, state and local level, and in every community across this nation, we must join forces to turn the tide against the opioid crisis.

ELINORE F. McCANCE-KATZ, M.D., PhD.

Assistant Secretary for Mental Health and Substance Use Substance Abuse and Mental Health Services Administration

Preface from the Surgeon General, U.S. Department of Health and Human Services

family and I are among the millions of Americans a ected by substance use disorder. My younger brother has struggled with this disease, which started with untreated depression leading to opioid pain reliever misuse. Like many with co-occurring mental health and substance use disorder conditions, my brother has cycled in and out of incarceration. I tell my family's story because far too many are facing the same worries for their loved ones. We all ask the same question: How can I contribute to ending the opioid crisis and helping those su ering with addiction?

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Introduction and Overview

Il across the United States, individuals, families, communities, and health care providers are struggling to cope with the impacts of the opioid crisis. Opioid misuse and opioid use disorders have devastating e ects. As we see all too often in cases of overdose deaths, lives end prematurely and tragically. Other serious consequences include neonatal abstinence syndrome and transmission of infectious diseases such as HIV and viral hepatitis, as well as compromised physical and mental health. Social consequences include loss of productivity, increased cy aiivis6 ()10 opi ()10 ingV9uh

address substance misuse across the community.

The O ce of the Surgeon General and the Substance Abuse and Mental Health Services Administration (SAMHSA) developed this Spotlight on Opioidsom the Surgeon General's Report, in order to provide opioid-related information in one, easy-to-read document. Although Spotlight on Opioidsoes not include new scienti c information, it provides the latest data on prevalence of substance use, opioid misuse, opioid use disorders, opioid overdoses, and related harms. This document sometimes

Opioids: The Current Landscape

To obtain a copy of Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Hodethse visit https://addiction.surgeongeneral.gov Please refer to that Report for more in-depth discussion of the topics presented here.

storically, opioids have been used as ain relievers. However, opioid misuse presents serious risks, including overdose and opioid use disorder. The use of illegal opioids such as heroin—a highly addictive drug that has no accepted medical use in the United States—and the misuse of prescription opioid pain relievers can have serious negative health e ects. Fentanyl is a synthetic opioid medication that is used for severe pain management and is considerably more potent than heroin. Sometimes, prescription fentanyl is diverted for illicit purposes. But fentanyl and pharmacologically similar synthetic opioids are also illicitly manufactured and smuggled into the United States.

These illicitly made synthetic opioids are driving the rapid increase in opioid overdose deaths in recent years. Illicitly made fentanyl and other pharmacologically similar opioids are often mixed with illicit substances such as heroin. They can also be made into counterfeit prescription opioids or sedatives and sold on the street.

PREVALENCE OF OPIOID MISUSE AND OPIOID USE DISORDER

older were estimated to have a heroin use disorder.

Specialty treatment is de ned as receiving treatment at a substance use rehabilitation facility (inpatient or outpatient), hospital (inpatient services only), and/or mental health center. Only 54.9 percent of those aged 12 and older with heroin use disorder received treatment for illicit drug use at a specialty treatment facilityOnly 28.6 percent of those aged 12 and older with an opioid use disorder in the past year received treatment for illicit drug use at a specialty treatment facility.

OPIOID OVERDOSE DEATHS

Opioids can depress critical areas in the brain that control breathing, heart rate, and body temperature and cause them to stop functioning. Opioids were involved in 42,249 deaths in 2016—more than 115 deaths every

with transmission of HIV, viral hepatitis, other blood-borne diseases (e.g., endocarditis, a life threatening heart valve infection), and bacterial infections, including antibiotic resistant organismse.g., Methicillinresistant Staphylococcus aureus or MRSA). Approximately, one in 10 new HIV diagnoses occur among people who inject drugs. The CDC has observed a steady decline in HIV diagnoses attributable to injection drug use since the mid-1990s, but progress may be slowing Reported rates of acute hepatitis C virus (HCV) infection have also increased signi cantly. The opioid crisis is helping to fuel these increases as well as rising health care costs associated with treating these conditions.

IMPORTANCE OF PREVENTION, SCREENING, EARLY INTERVENTION, AND TREATMENT

The risk of death and other signi cant consequences of opioid misuse highlight the importance of prevention, screening, and treatment for substance use disorders. Evidencebased interventions to prevent substance use, misuse and addiction target risk factors and enhance protective factors. Such interventions need to begin early in life to delay or prevent initiation of substance use and continue throughout the lifespan. For example, childhood trauma like adverse childhood experiences (ACEs) have been repeatedly linked to substance misuse^{19, 20} Primary prevention can also begin in the healthcare setting with prescribers using e ective strategies to reduce overdoses involving prescription opioids such as safe

includes links and descriptions to nearly 250 tools and resources available for health care professionals, patients, and communities to help implement MAT in primary care settings.

The Centers for Medicare and Medicaid Services (CMS) is now o ering a more exible, streamlined approach to accelerate states' ability to respond to the national opioid crisis through section 1115 demonstrations announced in November 2017. The Medicare program is focused on prescription opioid safety, access to MAT, and non-opioid alternatives for pain management.

The HHS Center for Faith-Based and Neighborhood Partnerships created the pioid Epidemic Practical Tootk equip local communities—lay persons, faith groups, non-pro ts, and health care providers—with practical steps to bring hope and healing to the millions su ering the consequences of opioid misuse.

REASONS FOR OPTIMISM

Despite the challenges, this is a time of great hope and opportunity. Research on alcohol and drug use and addiction has led to an increase of knowledge and to one clear conclusion:
Addiction to alcohol or drugs is a chronic but treatable brain disease that requires medical intervention, not moral judgment. Additionally, policies and programs have been developed that are e ective in preventing alcohol and drug misuse, and reducing its negative e ects.
Addressing risk and protective factors for indor

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Neurobiology of Substance Use, Misuse, and Addiction

Binge/Intoxication

Figure 1: The Three Stages of the Addiction Cycle and the Brain Regions Associated With Them

KEY TERMS

Relapse:7 K H U H W X U Q W R G U X J X V H D I W H U D V L J Q L "F D Q W period of abstinence.

The Continuum of Care for Substance Misuse and Substance Use Disorders

ective identi cation, intervention, and tegration of prevention, treatment,

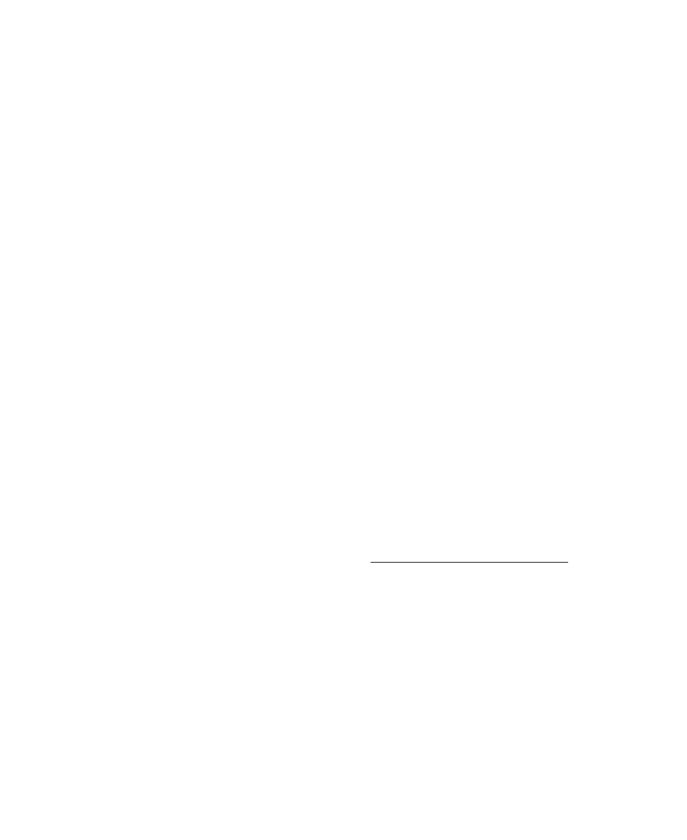


can o er prevention advice, screen patients for substance misuse and substance use disorders, as well as risk factors for substance use such as childhood trauma and ACEs, and provide early interventions in the form of motivational approaches^{4,2,43}

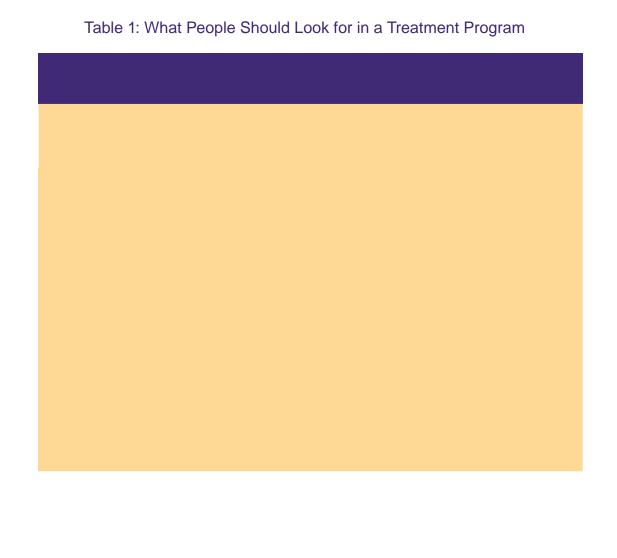
Primary care has a central role in this process,
because it is the site for most preventive and
ongoing clinical care for patients and the hub
for specialty care. The U.S. Preventive Services
Task Force (USPSTF) recommends that clinicians
screen adults aged 18 years or older for alcohol
misuse and provide persons engaged in risk
or hazardous drinking with brief behavioral
counseling interventions to red (s)]TJ T^* [(s)5 (c(a)4r)5 (e)-7 (d)6.3 (i)5.5 tTJ T^* [(a)13ge24 (e)i6 ()]TJ T^*
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associated with reductions in opioid overdose mortality. 46 PDMPs crew many purposes beyond preventing inappropriate prescribing—they can be leveraged as a clinical decision support, a public health surveillance tool, and have utility to the public safety sector, especially as interstate and intrastate interoperability improve.

TREATMENT AND MANAGEMENT
OF OPIOID USE DIR5 (ENT (ENT)2 (A)8Ue(EM)-2.5 a)0.5 AS8(ENT(P)18 (s s)]TJ 12 0
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MEDICATIONS AND MEDICATION-ASSISTED TREATMENT (MAT) FOR OPIOID USE DISORDERS.

Comprehensive MAT programs include behavioral therapies and psychosocial supports as well as medication. The FDA has approved medications for use in the management of

KEY TERM

Opioid Treatment Program (OTP): SAMHSAHUWL"HGSURJUDP XVXDOO\FRPSULVLQJDIDFLOLW\VWDII
administration, patients, and services, that engages
in supervised assessment and treatment, using
methadone, buprenorphine, or naltrexone, of individuals
who have opioid use disorders. An OTP can exist in a
number of settings, including but not limited to intensive
outpatient, residential, and hospital settings. Services
may include medically supervised withdrawal and/or
maintenance treatment, along with various levels of
medical, psychiatric, psychosocial, and other types of
supportive care.in210.3D [587 deF00030d2 upr(a)5-1(
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KEY TERM

Agonist: A chemical substance that binds to and ativates certain receptors on cells, causing a biological response. Fentanyl and methadone are examples of opioid receptor agonists.

State agencies that oversee substance use disorder treatment programs use a variety of strategies to promote implementation of MAT, including education and training, nancial incentives (e.g., linking funding to the provision of MAT), policy mandates, and support for infrastructure development. Nevertheless, multiple factors create barriers to widespread use of MAT. These include provider, public, and client attitudes and beliefs about MAT; lack of an appropriate infrastructure for providing medications; payment policies; need for sta training and development; and legislation, policies, and regulations that limit MAT implementation.

The use of opioid agonist medications to treat opioid use disorders has always had its critics. Many people, including some policymakers, authorities in the criminal justice system, and treatment providers u have viewed maintenance treatments as "substituting one substance for another"79 and have adhered instead to an abstinence-only philosophy that avoids the use of medications, especially those that activate opioid receptors. Such views are not scienti cally supported; the research clearly demonstrates that opioid agonist therapy leads to better treatment outcomes compared to behavioral treatments alone. Moreover, withholding medications greatly increases the risk of relapse to illicit opioid use and overdose death. Decades of research have shown that the bene ts of opioid agonist therapy greatly outweigh the risks associated with diversion 1.82

MAT FOR CRIMINAL JUSTICE POPULATIONS

Upon release, incarcerated individuals will have lower tolerance to opioids. They are at high risk for overdose and death if they return to opioid use in the community. There is typically insu cient pre-release counseling and post-release follow-up provided to this population to reduce these risks Research ndings from randomized controlled trials indicate that people involved in the criminal justice system bene t from methadone maintenance (pre- and post-release) and extended-release naltrexone treatment.

BEHAVIORAL THERAPIES.

These structured therapies help patients recognize the impact of their behaviors—such as dealing with stress or interacting in interpersonal relationships—on their substance use and ability to function in a healthy, safe, and productive manner. They can be provided in individual, group, and/or family sessions in virtually all treatment settings^{2,83} Behavioral >BDC 0.91 1 0.17 0.11 k /GS0 gs /TT-31 (re.11 5ha)14

Recovery: The Many Paths to Wellness

pople can and do recover. Recovery from ubstance use disorders has had several de nitions. Although speci c elements of these de nitions di er, all agree that recovery goes beyond the remission of symptoms to include a positive change in the whole person. In this regard, "abstinence," though often necessary, is not always su cient to de ne recovery. There are many paths to recovery. People will choose their pathway based on their cultural values, their psychological and behavioral needs, and the nature of their substance use disorder.

Successful recovery often involves making signi cant changes to one's life to create a supportive environment that avoids substance use or misuse cues or triggers. Recovery can involve changing jobs or housing, nding new friends who are supportive of one's recovery, and engaging in activities that do not involve substance use. This is why ongoing RSS in the community after completing treatment can be invaluable for helping individuals resist relapse and rebuild lives that may have been devastated by years of substance misuse.

RSS are not the same as treatment and have only recently been included as part of the health care system. The most well-known approach, mutual aid groups, link people in recovery and encourage mutual support while providing a new social setting in which former alcohol or drug users can engage with others in the absence of substance-related cues from their former life. Mutual aid groups are facilitated by peers, who share their lived experience in recovery. However, health care professionals have a key role in linking patients to these groups, and encouraging participation can have great bene t.87

Recovery coaches, who o er individualized guidance, support, and sometimes case management, and recovery housing—substance-free living situations in which residents informally support each other as they navigate the challenges of drug- and alcohol-free living—have led to improved outcomes for participants. Several other common RSS, including recovery community centers and recovery high schools, have not yet been rigorously evaluated.

Health Care Systems and Opioid Use Disorder

rvices for the prevention and treatment substance misuse and substance use sorders have traditionally been delivered separately from other mental health and general health care services. Because substance misuse has traditionally been seen as a social or criminal problem, prevention services were not typically considered a responsibility of health care systems; and people needing care for substance use disorders have had access to only a limited range of treatment options that were generally not covered by insurance.

E ective integration of prevention, treatment, and recovery services across health care systems is key to addressing opioid misuse and its consequences, and it represents the most promising way to improve access to and quality of treatment. When health care is not well integrated and coordinated across systems, too many patients fall through the cracks, leading to missed opportunities for prevention and early intervention, ine ecive referrals, incomplete treatment, high rates of hospital and emergency department readmissions, and individual tragedies (e.g., opioid overdoes) that could have been prevented.

The good news, however, is that a range of promising health care structures, technologies, and innovations are emerging, or are being re ned and strengthened. These developments are helping to address challenges and facilitate integration. Is so doing, they are broadening the focus of interventions beyond just the treatment of severe substance use disorders to encompass the entire spectrum of prevention, treatment, and recovery.

Conclusion

me opioid overdose epidemic brings into sharp focus how myths and misconceptions about addiction have led to devastating consequences for individuals and communities. The evidence-based public health approach described in the Surgeon General's Reports a positive way forward to reducing the opioid crisis by addressing factors that contribute to the misuse and its consequences. By adopting this approach—which seeks to improve the health, safety, and well-being of the entire population—we have the opportunity as a nation to take e ective steps to prevent and treat opioid misuse and opioid use disorder and reduce opioid overdose. A public health approach to the opioid crisis will also reduce other harmful consequences, such as infectious disease transmission and NAS. States that have had success in implementing the public health approach and slowing their overdose rates have emphasized the importance of partnerships. Given that too many individuals are dying every day from opioid overdose, shifting our attitudes and working together to widen access to prevention, treatment, and recovery services for opioid misuse and opioid use disorders are essential for saving lives.

The responsibility of addressing opioid misuse and opioid use disorders does not fall on one sector alone, and the health care system cannot address all of the major determinants of health related to substance misuse without the help of the wider community. Everyone has a role to play in changing the conversation around addiction, to improve the health, safety, and well-being of individuals and communities across our nation.

Below are suggestions for various key stakeholders.

Individuals and Families:

- Reach out, if you think you have a problem with opioid misuse or a substance use disorder.
- Be supportive (not judgmental) if a loved one has a problem.
- Carry naloxone and be trained on how to use it.
- Show support toward people in recovery.
- Parents, talk to your children about substance use.
- Understand pain. Many scienti cally proven pain management options do not involve opioids. Talk to your health care provider about an individualized plan that is right for your pain.
- Be safe. Only take opioid medications as prescribed to you. Always store in a secure place. Dispose of unused medication properly.

Educators and Academic Institutions:

- Implement evidence-based prevention interventions.
- Provide treatment and recovery supports.
- Teach accurate, up-to-date scienti c information about substance use disorders as medical conditions.
- Enhance training of health care professionals.

Health Care Professionals and Professional Associations:

- Address substance use-related health issues with the same sensitivity and care as any other chronic health condition.
- Support high-quality care for substance use disorders.
- Follow the gold standard for opioid addiction treatment.
- Follow the <u>CDC Guideline for Prescribing</u> <u>Opioids for Chronic Pain</u>
- When opioids are prescribed, providers can assess for behavioral health risk factors to help inform treatment decisions, and collaborate with mental health providers.
- Check the PDMP before prescribing opioids.
- Refer to patients to opioid treatment providers when neccessary.
- Become quali ed to prescribe buprenorphine for the treatment of opioid use disorder.

Health Care Systems:

- Promote universal, selective, and indicated prevention.
- Promote use of evidence-based treatments.
- Promote e ective integration of prevention, treatment, and recovery support services.
- Work with payers to develop and implement comprehensive billing models.
- Implement health information technologies to promote e ciency, actionable information, and high-quality care.
- Create stronger connections across behavioral health providers and mainstream medical systems.
- Engage primary care providers as part of a comprehensive treatment solution.

Communities:

- Build awareness of substance use as a public health problem.
- Invest in evidence-based prevention interventions and recovery supports.
- Implement interventions to reduce harms associated with opioid misuse.

Private Sector—Industry and Commerce:

- Support youth substance use prevention.
- Continue to collaborate with the federal initiative to reduce prescription opioidand heroin-related overdose, death, and dependence.
- Reduce work-related injury risks and other working conditions that may increase the risk for substance misuse.
- O er education, support and treatment bene ts for workers a ected by the opioid crisis.

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References

Office of the U.S. Surgeon General. Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Washington D.C.: U.S. Department of Health and Human Services:2016.

United States Drug Enforcement Administration. FAQ's-Fentanyl and Fentanyl-Related Substances. 2018; https://www.dea.gov/ G B D U TIF IDFULBTO ISM. Accessed June 28, 2018

- Wide-ranging online data for epidemiologic research (WONDER). Centers for Disease Control and Prevention, National Center for Health Statistics; http://wonder.cdc.gov, 2016.
- 4. Hedegaard H, Warner M, Minino AM. Drug Overdose Deaths in the United States, 1999-2016. NCHS Data Brief. 2017(294):1-8.
- Jones CM, Einstein EB, Compton WM. Changes in Synthetic Opioid Involvement in Drug Overdose Deaths in the United States, 2010-2016. JAMA. 2018;319(17):1819-1821.
- Center for Behavioral Health Statistics and Quality. 2017
 National Survey on Drug Use and Health: Detailed tables.
 Rockville, MD: Substance Abuse and Mental Health Services Administration; 2018.
- Ahmad F, Rossen L, Spencer M, Warner M, Sutton PJNCfHS. Provisional drug overdose death counts. 2017.
- Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths - United States, 2010-2015.
 MMWR Morb Mortal Wkly Rep. 2016;65(5051):1445-1452.
- 9. Kochanek KD, Murphy S, Xu J, Arias E. Mortality in the United States, 2016. NCHS Data Brief. 2017(293):1-8.
- U.S. National Library of Medicine. Neonatal abstinence syndrome. 2015; https://www.nlm.nih.gov/medlineplus/ency/article/007313.htm
- 11. Substance Abuse and Mental Health Services Administration. Clinical guidance for treating pregnant and parenting women with opioid use disorder and their infants. HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2018.
- 12. Hudak ML, Tan RC. Neonatal drug withdrawal. Pediatrics. 2012;129(2):e540-560.

- Winkelman TNA, Villapiano N, Kozhimannil KB, Davis MM, Patrick SW. Incidence and Costs of Neonatal Abstinence Syndrome Among Infants With Medicaid: 2004-2014. Pediatrics. 2018;141(4).
- Floyd RL, Jack BW, Cefalo R, et al. The clinical content of preconception care: alcohol, tobacco, and illicit drug exposures. Am J Obstet Gynecol. 2008;199(6 Suppl 2):S333-339.
- Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain - United States, 2016. MMWR Recomm Rep. 2016;65(1):1-49.
- Jackson KA, Bohm MK, Brooks JT, et al. Invasive Methicillin-Resistant Staphylococcus aureus Infections Among Persons Who Inject Drugs—Six Sites, 2005–2016. 2018;67(22):625.
- Centers for Disease Control and Prevention. HIV in the United States: At a glance. 2017; https://www.cdc.gov/hiv/statistics/overview/ataglance.html
- Increase in Hepatitis C infections linked to worsening opioid crisis;https://www.cdc.gov/nchhstp/newsroom/2017/hepatitis-c-and-opioid-injection.html

- Guy GP, Jr., Zhang K, Bohm MK, et al. Vital Signs: Changes in Opioid Prescribing in the United States, 2006-2015. MMWR Morb Mortal Wkly Rep. 2017;66(26):697-704.
- Lynch FL, McCarty D, Mertens J, et al. Costs of care for persons with opioid dependence in commercial integrated health systems. Addict Sci Clin Pract. 2014;9:16.
- 25. Substance Abuse and Mental Health Services Administration. Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. Treatment Improvement Protocol (TIP) Series 40. DHHS Publication No. (SMA) 04-3939. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration; 2004.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5) (5th ed.). Arlington, VA: American Psychiatric Publishing; 2013.
- 27. Hser YI, Ho man V, Grella CE, Anglin MD. A 33-year follow-up of narcotics addicts. Arch Gen Psychiatryyp of --51.3 (i8)-38-10.5) (:l)3.2 (. 8.8 (9))-12 (5)11.6 ()3.2 (. D)7.9 (8d)-8.9 (C ET/Lbl <</MCID 2248 >>

- 48. McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. JAMA. 2000;284(13):1689-1695.
- Garner BR, Scott CK, Dennis ML, Funk RR. The relationship between recovery and health-related quality of life. J Subst Abuse Treat. 2014;47(4):293-298.
- Pasareanu AR, Opsal A, Vederhus JK, Kristensen O, Clausen T.
 Quality of life improved following in-patient substance use disorder treatment. Health Qual Life Outcomes. 2015;13:35.
- 51. Tracy EM, Laudet AB, Min MO, et al. Prospective patterns and correlates of quality of life among women in substance abuse treatment. Drug Alcohol Depend. 2012;124(3):242-249.
- 52. Baca CT, Yahne CE. Smoking cessation during substance abuse treatment: what you need to know. Journal of substance abuse treatment. 2009;36(2):205-219.
- Prochaska JJ, Delucchi K, Hall SM. A meta-analysis of smoking cessation interventions with individuals in substance abuse treatment or recovery. Journal of consulting and clinical psychology. 2004;72(6):1144-1156.
- 54. Substance Abuse and Mental Health Services Administration. Behavioral health treatments and services. 2016p://www.samhsa.gov/treatment
- 55. Millette S, & Cort, B. . Treatment for substance use disorders
 The continuum of care. In: National Partnership on Alcohol Misuse and Crime; 2013.
- Kelly TM, Daley DC, Douaihy AB. Treatment of substance abusing patients with comorbid psychiatric disorders. Addict Behav. 2012;37(1):11-24.
- 57. Substance Abuse and Mental Health Services Administration. Chapter 10. Addressing diverse populations in intensive outpatient treatment. Clinical issues in intensive outpatient treatment. Treatment improvement protocol (TIP) series, No.



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