CHIME Opioid Stewardship Playbook 2.0

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Writen by the CHIME Opioid Task Force
www.opioidactioncenter.com

CHIME
OPIOID
TASK FORCE
UnITed in the Fight Against the Opioid Crisis

INTRODUCTION

The CHIME Opioid Task Force launched in early 2018 with a clear mission: to turn the tide on the opioid epidemic by leveraging the knowledge and expertise of the nation's healthcare IT leaders. While the mission is straightforward, the challenge is complex. Opioid addiction is a chronic disease that requires long-term, often lifelong, care. It requires well-informed clinicians equipped with reliable, user-friendly tools to support evidence-based decision-making.

The first CHIME CIO Playbook, released in 2019, was designed for Chief Information Officers (CIOs) and Chief Medical Information Officers (CMIOs). It provided IT leaders with strategies to address the crisis within their organizations. The Opioid Stewardship Playbook 2.0 expands this vision—it is for anyone involved in caring for or supporting individuals at risk for opioid use disorder (OUD) or those who are already struggling with it. This edition offers technical solutions for clinicians and valuable information for those working alongside them to improve care, enhance safety, and support recovery.

Developed from the collective knowledge and experiences of CHIME members and CHIME Foundation partners, Playbook 2.0 provides real-world examples, best practices, and informative white papers. It is a living document, continuously evolving to reflect the latest insights, innovations, and leading IT practices in addressing opioid addiction. Together, we can drive meaningful change. Thank you for joining us in this critical effort to end the opioid crisis.

CHIME OPIOID TASK FORCE

CHAPTER 1: STATE OF AMERICA'S OPIOID CRISIS

EXECUTIVE SUMMARY

The opioid crisis remains one of the most significant problems in America today. Contributing factors to this crisis include years of over-prescribing of pain medications, substantial increases in the availability of high-potency heroin followed by fentanyl, uncontrolled rates of addiction with inadequate access to treatment services, and conflicting processes and policies. An abundance of work has been undertaken in recent years, with recent trends indicating that mortality rates may finally be dropping, bringing hope to communities, care providers, and impacted families and patients.

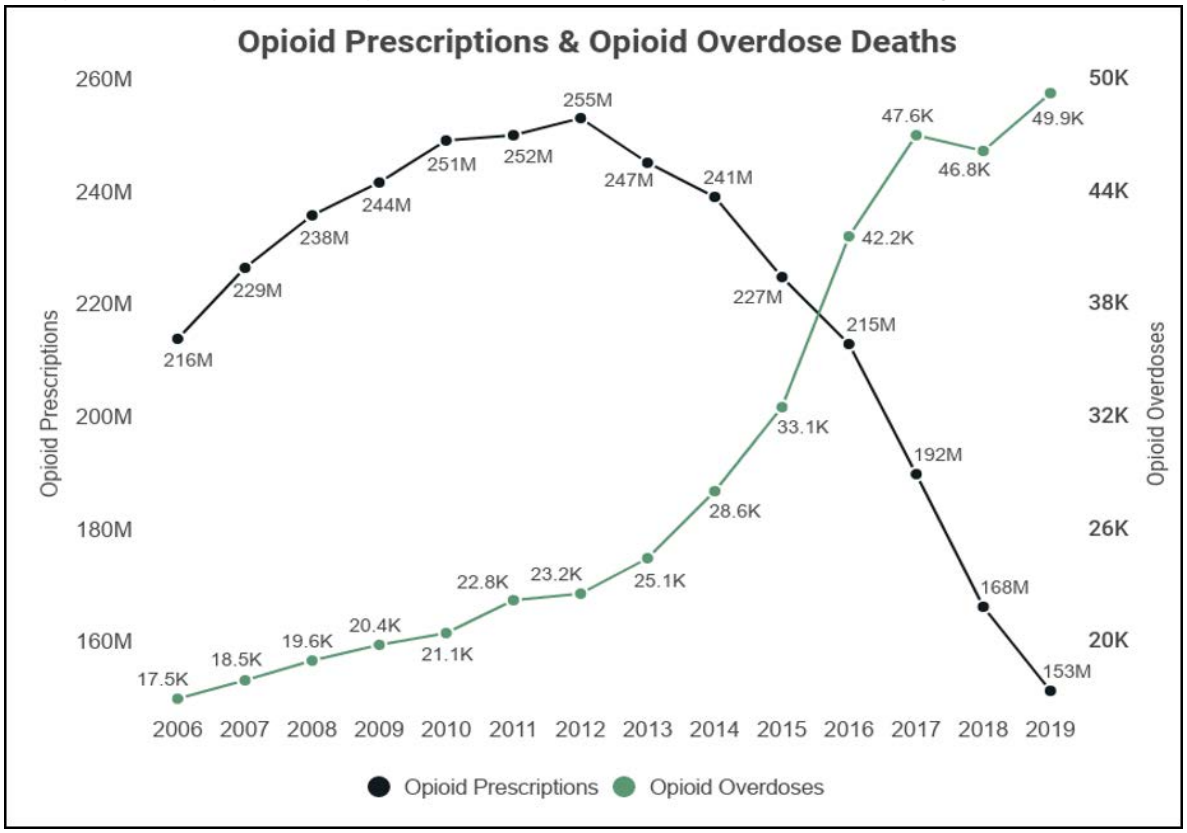
KEY DRIVERS OF THE CRISIS

Excessive Prescribing of Pain Medications

The opioid crisis in America is rooted in the change in healthcare pain management practices and clinical training that started in the early 1990's. Physicians were trained in medical schools to treat pain and reduce patient suffering readily and were evaluated and measured for quality based on their patient pain management scores. These changes led to excessive ordering and dependence on opioids to relieve pain to meet the new guidelines for clinical practice. At the same time, drug companies, including Purdue Pharma, actively marketed opioid-based pain medications to prescribing clinicians and clinics. The marketing campaign for high-potency drugs such as Oxycontin illegitimately promoted them as non-addictive for the sake of company profits. The changes in pain management practices and large pharmaceutical company sales of pain medications went largely unchecked by regulatory and oversight groups.

When it became clear that prescription opioids were, in fact, very addictive, there was a new focus on reducing such prescriptions across the healthcare system. New guidelines issued in 2015 by the Centers for Disease Control (CDC) were impactful but resulted in unintended consequences. Clinics and individual prescribers started to be measured by new standards for pain management with an emphasis on reducing opioid prescribing. However, the pendulum swing resulted in long-standing patients' prescriptions being halted or dramatically reduced. New patients also experienced the challenge of not receiving adequate pain treatment. Many patients dependent on or in need of opioids sought alternative sources and frequently turned to illicit drugs like heroin. Declining prescription rates correlated with a significant rise in opioid-related mortality.

Table 1. Opioid Prescriptions and Opioid Overdose Deaths, National Center for Drug Abuse Statistics, 2020



Illegal Drug Trade

As documented in Dreamland (Sam Quinones, 2015), the opioid crisis was further exacerbated by the entry into the United States of high potency and purity (90%+) black tar heroin sold at a very low cost. Black tar heroin was produced in Xalisco, a highly impoverished area in the state of Nayarit, Mexico. Producers used a novel distribution approach that took law enforcement by surprise. Teenagers and young adults from poverty-stricken areas in and around Xalisco were recruited as delivery agents by untraceable dealers. Dealers largely remained behind the scenes to avoid direct contact with drug consumers and detection by law enforcement. Strategically, the Xalisco traffickers targeted under-served markets and rural areas of the United States to avoid competition with established drug dealers in major metropolitan areas. With cheap but powerful supplies, wide distribution, and unique delivery approaches, the impact on targeted communities was horrific.

Addiction Rates

By 2010, drug addiction to opioids was escalating exponentially across the country. Teenagers and young adults from middle- and upper-class families and patients who required post-treatment pain management were especially susceptible. Four states, namely Maryland, Ohio, West Virginia, and Pennsylvania, were identified as “Ground Zero” regions. In these Ground Zero states, opioid overprescribing and addiction to lethal black tar heroin ran rampant. Today, after nearly ten years of intervention and crack-down, the Ground Zero states continue to have opioid overdose deaths twice the rate of all other US states. While prescriptions have

dramatically reduced in the healthcare system since 2015, mortality rates from overdoses have risen. These conflicting trends are, in part, a result of dependent patients going to the street for illicit drugs after having their prescriptions reduced or stopped. Opioid overdose deaths became one of the leading causes of mortality in 2018 and resulted in an overall reduction in average lifespan in the U.S.

Black Market Fentanyl

As the United States grappled with responding to the growing crisis, the black market introduced a far more potent and lethal drug in 2017. Fentanyl, a powerful synthetic opioid up to 50 times stronger than morphine, offered enhanced potency at reduced costs. A cheaper alternative to heroin and easier to distribute, fentanyl further exacerbated both dependence/addiction and resulted in dramatic increases in overdose deaths. Its precursor chemicals are produced mainly in China and used for the manufacture of illicit fentanyl in Mexico, then trafficked illegally across the border. Shutting down the availability of fentanyl has been extremely difficult.

To make matters worse, indiscriminate drug dealers began lacing other street medications with fentanyl. Unsuspecting customers seeking heroin, cocaine, methamphetamine, and ecstasy were often exposed to highly potent doses of fentanyl, and related addiction and overdoses rose dramatically. As COVID hit the United States with requirements to stay home from work and school, many people experiencing isolation and associated mental health challenges increased use and dependence on alcohol and recreational drugs. The internet provided expanded availability and use of illicit drugs, with a major impact on teenagers and young adults. Medications sold over the internet and on the street were too often laced with fentanyl (estimated 60%), resulting in fatal consequences. Opioid-related mortality skyrocketed, with dramatic increases among children and young adults ages 12-19.

Stigma

In 2022, the opioid crisis resulted in the highest overdose mortality rate in our country's history. Of the approximately 108,000 deaths attributed to drug overdoses, at least 80% were due to opioids. Several factors complicated the response to the opioid crisis. First and foremost, the stigma associated with addiction and drug dependence must be addressed on a scientific and data-driven basis. The stigma is multi-faceted, starting with clinician education and clinical practice, and continues to be evasive in minimizing change to diagnosis, treatment, and prevention. Drug dependency and addiction are too often not seen as chronic dieases. Further, the stigma is embedded in policy and institutional standards, including law enforcement and inadequate healthcare insurance coverage. Patients with addiction and substance use disorder (SUD), including opioid use disorder (OUD), often avoid seeking treatment at the risk of being prosecuted or losing their jobs. Finally, patients and their families/support partners often fear seeking help. When advice is finally sought, the information received from experts, colleagues, or friends is highly variable. Drug use and addiction are largely viewed as bad behavior and poor moral choices within the patient's control. This thinking is akin to saying patients with diabetes or cancer an decide to be cured.

Healthcare System Challenges

The US healthcare system is fragmented, with minimal integration between acute and community-based services, restricting the ability to improve care continuity and help SUD/OUD patients survive and recover. Vital patient data is not shared or available across different services, and there are limited treatment services available in communities for SUD/OUD patients. National standards and regulatory bodies oversee hospitals, while community and behavioral and SUD treatment services must comply with requirements that vary by state. A key capability to help, namely state/regional Prescription Drug Monitoring Programs (PDMPs), was initially not standardized, nor did it provide cross-state tracking of controlled substances. Recent improvements are working to resolve this, with hospitals now required to interface their Electronic Medical Records (EMR) systems and medication ordering with PDMPs for controlled substances. At the same time, the numerous and immature EMRs geared toward behavioral health and community services are highly driven by requirements that vary by state. Little, if any, interoperability capabilities exist to track patients and their medications. In summary, significant gaps in leveraging treatment standards and data interoperability restrict the ability to improve patient treatment and outcomes.

Improvements Underway

The national opioid crisis is widely recognized as a critical issue and has been declared a national emergency. Numerous federal and state agencies are prioritizing the opioid crisis and working to develop improvements. Their focus is on reducing rates of addiction and mortality, promoting standards for treatment and access, and tracking data to identify emerging trends in patient risks and other illicit drugs entering our communities.

Agency Focus

Both the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institute on Drug Addiction (NIDA) are expanding their focus and defining new approaches. Their goals include improving treatment services and promoting interoperability to treat patients across the continuum of care safely. The American Society of Addiction Medicine (ASAM) recently defined new standards of care for patients suffering from SUD. Also actively engaged are the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH). Recent regulatory changes, such as 42CFR Part 2, promote patient data sharing across treatment services based on patient consent. However, this recent legislation that went into effect in February 2024 has a 2-year grace period for adoption and implementation by treatment services and care providers.

Healthcare Reform

Reimbursement for substance use and addiction treatment is also expanding, albeit slowly. Healthcare reform under the Obama administration implemented expanded coverage requirements for insurance companies. The new coverage increased support for recovery care and medication for addiction treatment (MAT) and is critical in helping patients suffering from opioid use disorder (OUD) stay in

recovery. Medicaid services nationwide are also expanding coverage and support for patients with SUD. Some are launching timely and innovative programs to expand treatment services for adults and adolescents. The new programs include wider availability and distribution of naloxone in communities and schools, and education programs on risks and harm reduction approaches in their communities.

Provider Practice

Significant improvements are underway in treating patients across the continuum of services, especially community services and acute care organizations. The requirement that prescribers of controlled substances, notably Class II and III medications, first check the state or regional PDMP went into effect in 2022. Most acute care organizations enabled automated PDMP checking through their EMR and orders management systems, easing the burden on ordering clinicians. The 2024 regulatory updates to 42 CFR Part 2 around patient consent increased patient data sharing. Patient access to SUD treatment was greatly enhanced during COVID, with telehealth services becoming more wide-spread and often across state lines. Continued emphasis on alternative and virtual treatment modalities will help under-served communities and patients increase access and remove barriers to treatment. Additionally, the elimination of the X-waiver in 2023 greatly expanded physicians' ability to prescribe buprenorphine to patients with OUD, which is critical to reducing cravings and relapse, as well as reducing stigma around OUD.

Population Health

Cities and communities are essential to addressing the opioid crisis. Both federal and state agencies now support municipalities as acknowledgment grows for SUD/OUD being a chronic disease that requires long-term care and treatment for patients. Increasing treatment services available in communities is widely recognized as essential for patient access to stop the high-risk and often fatal cycle of withdrawal and relapse so common in patients with OUD.

Naloxone, highly effective in reversing opioid overdose, is now available over the counter in all states. Some states (e.g., California) have made naloxone available for free or low cost. Communities are working to expand availability and administration training to families and front-line responders. Prisons are a major challenge, with over two-thirds of convictions related to drugs and still rampant availability and use of illicit drugs by those incarcerated. High-risk individuals are now given naloxone as well as transition to treatment upon release.

Communities are also expanding the use and deployment of care teams to high-risk areas to help those afflicted with SUD/OUD learn critical harm reduction methods and awareness of and access to treatment. In addition to meeting patients where they are, communities are expanding education programs and outreach to help at-risk individuals, their families, and support partners. Organizations, including schools and churches, are involved in helping teachers, students, and family members understand both risks and mitigation approaches, as well as support services available in the community.

Interoperability

A critical need for high-quality, safe health care is to have patient data and history readily available and usable at the point of care. This capability was greatly expanded by adopting hospital/health system EMRs over the last 10 years, facilitated by government incentives for implementation and adoption. However, common EMRs and data exchange standards are less mature in community services, the primary provider of behavioral and SUD treatment in the United States. The lack of standards for treatment and reimbursement across states exacerbates the problem. The results are insufficient integration around the patient and their data, with both patients and providers at risk of safe care.

Numerous federal agencies, including SAMHSA, NIDA, and the Office of the National Coordinator for Health Information Technology, have prioritized nteroperability to provide effective data sharing and access. Along with promoting data sharing based on patient consent, grants from federal agencies for demonstration projects and solutions have been made available and are underway. In addition to leveraging Health Information Exchanges (HIEs) for patient data sharing, many acute care organizations are extending their EMR capabilities to non-owned/affiliated physician groups and behavioral health and community services to accomplish interoperability objectives.

Recent Trends

The Federal Communications Commission (FCC) recently reported that the opioid crisis has been ravaging communities and families across the U.S. for the past decade. In 2017 the opioid crisis was declared a public health emergency under section 319 of the Public Health Service Act, and it was declared again in June of 2024. Evidence suggests that the impacts of the opioid crisis were exacerbated during the COVID-19 public health emergency with significant increases in alcohol and substance misuse and worsening mental health issues. The opioid crisis claimed more than 220 lives per day in 2022. Encouraging 12-month preliminary data in mid-2024 indicates reduced mortality caused by opioids.

A significant increase in overdose death rates in ages 12-19 occurred during COVID. This profound impact was due to a steep rise in fentanyl drug use and counterfeit recreational drugs laced with fentanyl. The Song for Charlie organization reported the highest rate of increased mortality was due to synthetic opioids. Comparing mortality rates from 2017 to 2022, the US experienced alarming increases impacting children and young adults:

- **555% increase among adolescents 10-14 years old**
- **323% among young adults 15-19 years old**

According to the Centers for Disease Control (CDC) and reported by CBS in December 2024:

- Since 2021, over 100,000 people have died of overdoses each year in the U.S.

A record number of overdose deaths, over 108,000, were recorded in 2022. Approximately 81,806 involved synthetic opioids other than methadone.

- The number of overdose deaths dipped in 2023 and has continued to drop monthly throughout 2024.
- Dr. Rahul Gupta, Director of the Office of the National Drug Control Policy (ONDCP), attributed the drop in overdose deaths to making treatment more accessible and cracking down on cartel leaders and drug production. He also attributed the recent expansion of naloxone that reverses opioid overdose. Some naloxone products are now widely available over the counter.
- Most overdose deaths in the United States continue to involve opioids, notably fentanyl. There has been a decrease in such deaths, CBS News prevously reported, but a rise in deaths involving psychostimulants like meth and cocaine.

Health System Progress

For the last 10 years, hospitals and health systems have focused on rationalizing and reducing prescriptions of opioids for pain management. Opioid stewardship committees were formed with representatives from Pharmacy, Anesthesiology, and services that have high rates of opioid prescriptions, such as Orthopedics and Surgical Services. Often reporting to the organizations' patient safety committees, emphasis was placed on reviewing and reducing overall prescription rates for clinical services as well as physician prescribers. According to data released in 2020 by the CDC, opioid prescriptions dropped from a peak of 255 million in 2012 to 153 million by 2019.

Opioid stewardship committees have also focused on improving EMR and electronic ordering systems to support clinicians in prescribing decisions and identifying high-risk patients, as well as evaluating and implementing alternative pain management methods. The 2024 Digital Health Most Wired Survey conducted by the College of Healthcare Information Management Executives (CHIME) reported that formal opioid stewardship committees have become commonplace in US hospitals. These committees focus on reducing the overall use of opioids and leveraging advances in information technology to assist clinicians in improving the prescribing of opioids and identifying patients with a high risk of SUD or overdose.

Non-Profit Organizations

In addition to the increased focus on the opioid crisis by federal, state, and local government agencies, many non-profit organizations have been established to help turn the tide and aid patients and their families. A few organizations to highlight:

- **College of Healthcare Information Management Executives (CHIME) Opioid Task Force** Focused on leveraging information technology in healthcare systems to support clinicians in improving appropriate prescribing of opioids, promoting leading practices through sharing publications and podcasts, and developing effective interoperability of data to support patient care continuity across health systems and community-based services.

- **Partnership to End Addiction** Focused on educating and helping family and patient support partners in understanding the addiction cycle and accessing critcal support services.
- **Song for Charlie** Focused on increasing awareness among family members, teenagers, teachers and the community regarding risks associated with fentanyl and other drug use. The New Drug Talk promoted by SFC has become widely recognized as a critical conversation for families to increase understanding of risks among children.
- **Christopher Wolf Crusade** Focused on providing life coaches in hospitals to educate patients and prescribing clinicians about the risks of opioids and consider alternative pain management methods.

Acknowledging the intractable nature of addiction and the devastating impact of SUDs, a significant focus on disease education, treatment methods, and harm reduction has been established. Clinicians and outreach workers are increasingly educating patients about safe practices such as not using alone or at the same time in case of overdose. Naloxone (aka Narcan), a lifesaving antidote to reverse opioid overdoses, is increasingly being provided to patients prescribed opioids as well as individuals who use illicit opioids. Numerous states and local communities are making naloxone available for free or at a low cost. They recommend naloxone be a staple in homes and cars given the growing probability of encountering someone experiencing an overdose. Front line responders are being educated on the proper use of naloxone and adapting administration methods to address victims of fentanyl and other high potency opioids that often require repeated oses.

PRIORITIES GOING FORWARD

Combating the opioid crisis in America will continue for years to come and require concerted efforts on numerous fronts. Coordination of efforts, developing new and innovative solutions and sharing those approaches and results are paramount to reversing the tide on this horrific dilemma. We cannot turn a blind eye to the devastating impact the opioid crisis has had on patients, families and communities. There's hope through progress, and we can change the course of history by remaining diligent and focused as the crisis evolves.

Diligent work is underway by healthcare systems focused on reducing opioid prescribing and finding alternatives for pain management. Virtual reality has been found to significantly relieve anxiety in children undergoing surgery that reduces the amount and need for pain medications. Healthcare systems across the country are actively limiting the size of pain medications prescribed, and scrutinizing renewals to reduce the risk of long-term dependence on opioids. Critical work is also being done to identify high risk patients and minimize exposure to opioids for those most vulnerable to dependence leading to addiction. There's growing evidence that adolescents given opioids are more prone to substance misuse, leading to changes in how we treat pain in dental offices and outpatient clinics.

Almost every urban community has developed a response to the opioid crisis, with coordinated efforts by law enforcement working together with healthcare and outreach professionals and referring patients to treatment and long-term support. Increasing SUD treatment services available in the community is a significant challenge and requires investment from business and local leaders. Still, much more focus needs to be on rapidly expanding these services and methods, especially in rural areas where addiction rates have soared, and help is sparse.

Recent changes in federal policies and the development of new standards and approaches to combating SUD/OUD are underway with promising results. The recent enactment of updates to 42CFR Part 2 provides a critical solution to treating patients. Requiring health systems and clinicians to use electronic prescribing of controlled substances, together with checking the local PDMP increases the ability to track patients and medications over time. Numerous national government agencies including SAMHSA and NIDA have also identified and prioritized the need for interoperability among clinical service and providers and are funding advanced demonstration projects.

Healthcare information technology (HIT) is being advanced through innovation to help stem the opioid crisis and other substance-use disorders. Hospital EMRs, widely adopted in the last 10 years, are being built upon and enhanced to improve informed decision making and prescribing. Regional HIEs are being leveraged to share patient data across disparate systems and community treatment services where EMRs aren't standard, well adopted, or implemented.

The lack of standards for community treatment services across states, driven by different reimbursement requirements, remains a major constraint and hurdle to overcome. In addition to HIT investments, development and use of patient-centric systems is expanding the ability for patients to stay connected and track their progress in recovery. These systems help treatment services and support partners intervene quickly when the risk of relapse increases. There's also a new focus on developing and deploying predictive tools to help identify high risk patients and divert the cycle of dependence and addiction.

CHAPTER 2: OUD SCREENING AND RISK SCORING

BACKGROUND

The impact of opioid use disorder (OUD) has transcended clinical boundaries to become a profound public health crisis. As healthcare providers and organizations, we are at the forefront of addressing this crisis. Our task is not only to treat acute conditions but also to recognize and intervene in the chronic disease of addiction. Effective screening for opioid use disorder represents a critical first step in this process. OUD screening enables early detection, intervention, and the provision of appropriate care to individuals in need. This process is dependent on transparency and the effective delivery of information. There are opportunities to better screen patients objectively.

This chapter explores the pivotal role of screening within healthcare. Examples of screening tools will be highlighted, along with the organizations which have implemented them.* **

** This chapter will not discuss urine toxicology, which is out of scope.*

*** Though opioid use disorder treatment is emphasized in this playbook chapter, the importance of clinicians treating other substance use disorders, such as alcohol and stimulant use, should not be minimized.*

SCREENING METHODOLOGY

Screening in health systems can occur by providers asking patients questions directly or by patient self-reporting. Self-reporting can be facilitated through paper, tablet, or web-based forms. An ideal screening tool will maximize the identification of at-risk patients but will not add the significant clinical burden of false positives.

The performance and interpretation of screening tools should be designed, implemented, and evaluated by a multidisciplinary team. For example, the Opioid Stewardship Committee, discussed in Chapter 1 of the CHIME [CIO Playbook (1.0)][1], is an ideal team to oversee the use of a screening tool.

Screening for Opioid-Related Risks

Although no patient should be subjected to the withholding of appropriate pain management when clinically indicated, it may be helpful for shared decision-making and closer monitoring for patients who are deemed to be at higher risk of misusing opioids if prescribed. An example could be an opioid naïve individual who receives a new prescription after surgery or injury.
In cases where the prescribing of opioids may be deemed necessary, screening tools such as the Opioid Risk Tool can be used to help contribute to a risk/benefit discussion with the patient.

Tool Review: Opioid Risk Tool (ORT)

This tool was developed to assess the potential opioid misuse risk among patients prescribed opioids for chronic pain. The tool is easily inserted into an electronic health record (EHR).

Table 1. Opioid Risk Tool

Opioid Risk Tool

This tool should be administered to patients upon an initial visit prior to beginning opioid therapy for pain management. A score of 3 or lower indicates low risk for future opioid abuse, a score of 4 to 7 indicates moderate risk for opioid abuse, and a score of 8 or higher indicates a high risk for opioid abuse.

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Its limitations include:

1. It was developed nearly 20 years ago before the fentanyl crisis.
2. Patient scores can differ depending on gender.
3. The question asking about history of preadolescent sexual abuse. It may be triggering for some patients and staff may feel uncomfortable asking it.

Tool Review: Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)

This SOAPP-R tool was developed with rigorous psychometric techniques, and is intended to determine how much monitoring a patient on long-term opioid therapy might require. The tool was designed specifically for patients being considered for chronic opioid therapy. As with the ORT, it was developed in the early 2000's. The incidence of patients initiated on chronic opioid therapy should be much less frequent now.

This screener is composed of 24 questions that ask individuals indirectly about risk, such as about the patient's temperament, justice involvement, and pain medication use. This tool, like the ORT, can also be incorporated into EHRs. The SOAPP-R is a proprietary tool, however, and may involve the need for licensing.

Screening for Current Opioid Use Disorder

In addition to screening for risk before prescribing opioids, it is also recommended to screen patients for active substance use so that it can be addressed.

Examples of potential active substance use situations:

1. Patients who present to the emergency department with skin abscess. In these situations, it should first be determined that the infection was not due to injection drug use.
2. Patients treated for infectious endocarditis and the underlying cause of the infection (injectiondrug use) was not addressed.
3. Patients who have an injury or need surgery, especially if the patient is opioid tolerant.

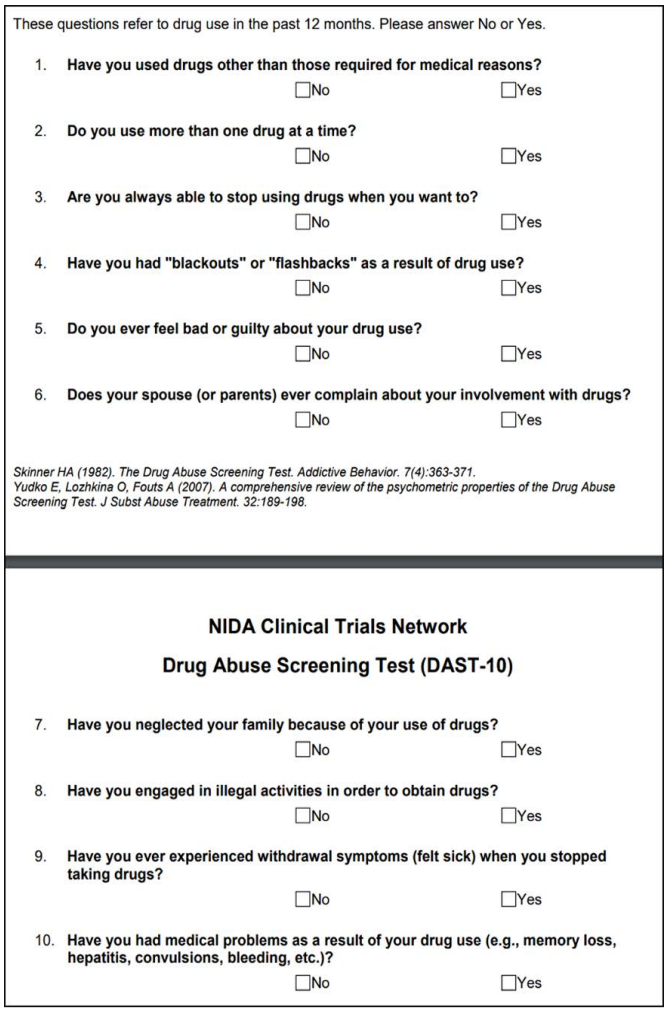
Tool Review: Drug Abuse Screening Test (DAST)

The original DAST consists of 28 questions that were based upon the Michigan Alcoholism Screening Test. Although its validity has been proven, it is lengthy. Both the 10 and 20-question versions have been validated, and we recommend the incorporation of DAST-10 for broad screening.

The first question of DAST-10 is called the "Single Item Screening Question" (SISQ):

- *In the past 12 months, have you used drugs other than those required for medical reasons?*

- If the patient answers "no", then no further questioning is needed. If "yes", the remaining 9 questions are asked.



These questions refer to drug use in the past 12 months. Please answer No or Yes.

1. **Have you used drugs other than those required for medical reasons?** ☐No ☐Yes
2. **Do you use more than one drug at a time?** ☐No ☐Yes
3. **Are you always able to stop using drugs when you want to?** ☐No ☐Yes
4. **Have you had "blackouts" or "flashbacks" as a result of drug use?** ☐No ☐Yes
5. **Do you ever feel bad or guilty about your drug use?** ☐No ☐Yes
6. **Does your spouse (or parents) ever complain about your involvement with drugs?** ☐No ☐Yes

Skinner HA (1982). The Drug Abuse Screening Test. Addictive Behavior. 7(4):363-371.
Yudko E, Lozhkina O, Fouts A (2007). A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. J Subst Abuse Treatment. 32:189-198.

NIDA Clinical Trials Network

Drug Abuse Screening Test (DAST-10)

7. **Have you neglected your family because of your use of drugs?** ☐No ☐Yes
8. **Have you engaged in illegal activities in order to obtain drugs?** ☐No ☐Yes
9. **Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?** ☐No ☐Yes
10. **Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?** ☐No ☐Yes

Table 2. Drug Abuse Screening Test (DAST)-10

The DAST-10 also includes recommendations based upon the number of questions answered "yes":

Table 3. Drug Abuse Screening Test (DAST)-10 Interpretation

Interpretation of Score:

Score	Degree of Problems Related to Drug Abuse	Suggested Action
0	No problems reported	None at this time
1-2	Low level	Monitor, reassess at a later date
3-5	Moderate level	Further investigation
6-8	Substantial level	Intensive assessment
9-10	Severe level	Intensive assessment

Tool Review: Prescription Drug Monitoring Program (PDMP)-related Screening

PDMPs can be integrated into the EHR in many ways. This is discussed in Chapter 1 of the CHIME OTF's CIO Playbook 1.0. Many state PDMPs also provide screening information based on a patient's controlled substance prescription history, but this is not necessary for the overall integration. Bamboo Health supplies the predominant PDMP system, which is utilized by at least 42 states. States may choose to implement its add-on tool, NarxCare.

NarxCare provides a three-digit number for different controlled substance categories:

1. Narcotic
2. Sedative
3. Stimulant

NarxCare also provides a single "overdose risk score". The scores range from 000 to 999, with the third digit being indicative of the number of current dispensations. A higher score indicates higher risk. Some health systems have integrated NarxCare scores into their EHRs. This pushes the three-digit number to providers without the need to manually query the PDMP. Research findings on the validity and utility of this score are mixed.

For example, there is evidence that patients with higher NarxCare scores undergoing non-emergent spine surgery had:

1. Higher odds for a prolonged length of stay (score >400)
2. Higher odds for a 90-day readmission (score >500)

Another study reported similar findings for patients who had total knee arthroplasty. Validation of the score against a standardized screening test found 17% false positives and 13% false negatives.

There is concern that the tool has not undergone sufficient validation, and some researchers have posited that there is not yet sufficient evidence to support its wide implementation.

In light of these studies, our current recommendation is that clinicians use these scores to guide decision-making in this way:

1. If a score of 000 appears, the clinician can quickly ascertain that the patient has no recent controlled substance prescription history and no further PDMP inquiry is necessary.
2. For any other score, the clinician should look at the complete PDMP report and determine the reason for the elevated score. The clinician should use their judgment to determine if a controlled substance prescription is still indicated. Higher scores may indicate at-risk patients who should be prescribed naloxone. In no case should adequate pain management be withheld solely based on the NarxCare score.

Positive Screen? Next Steps...

If a patient is found to screen positive for substance use, actions that should be considered include:

1. Referral to pain, psychiatry, and/or addiction medicine
2. Detoxification
3. Change in current medication or monitoring
4. Starting medication for addiction treatment (MAT).

Specific actions are based on the severity of this disease, risk of further harm, and available resources. This is further discussed in Chapter 3: Clinical Decision Support for Buprenorphine and Overdose Reversal Medication.

RESOURCES

When looking for reputable websites on the prevention and identification of substance abuse, you should focus on sources that provide evidence-based information, resources, and support.

Here are some highly regarded websites:

- National Institute on Drug Abuse (NIDA)
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- Centers for Disease Control and Prevention (CDC) - Substance Abuse
- Partnership to End Addiction
- American Society of Addiction Medicine (ASAM)
- National Council on Alcoholism and Drug Dependence (NCADD)

REAL WORLD EXAMPLES: SUNY UPSTATE MEDICAL UNIVERSITY

SUNY Upstate Medical University developed a comprehensive program to address OUD. The program included the implementation of a universal screening protocol and a Bridge Clinic.

Screening

SUNY's screening program was implemented system-wide throughout their outpatient, ED, and inpatient areas. The screening protocol, a *two-item conjoint screen (TICS) method*, included a brief two-question survey for all patients over the age of 13.

TICS Questions:

1. *In the last year, have you ever used more alcohol or drugs than you meant to?*
2. *Have you felt you wanted or needed to cut down on your drinking or drug use in the last year?*

TICS was designed with patients' comfort and providers' brevity in mind. Patients identified for OUD through the TICS method were treated by a dedicated OUD team. This team works in parallel with the patient care team and manages the patient's acute pain and medication.

Results:

1. Length-of-stay reduction for inpatients with OUD

According to Dr. Ross Sullivan, improved OUD identification through screening has increased OUD team consultations on their inpatient units. In their outpatient clinics, OUD-related referrals to social workers have increased.

> "Social work has found that getting the OUD referral up-front helps tremendously at the end of the inpatient visit and post hospitalization care."
>
> **-Dr. Ross W. Sullivan, MD**

Bridge Clinic

SUNY's Bridge Clinic was designed to provide outpatient support for patients with OUD who present in the ED. Within 3 days of being discharged from the ED, the patient is seen at the Bridge Clinic

Results:

1. Upstate has seen opioid-related ED visits decrease by 42% for patients who are seen at the Bridge Clinic.
2. 80% of Bridge Clinic patients are successfully linked to long-term treatment.

REAL WORLD EXAMPLES: YALE EMBED

Eighteen emergency departments across five health systems sought to determine the effect of a user-centered clinical decision support tool on the rate of buprenorphine initiation. Individuals with OUD were identified using a pragmatic cluster randomized controlled trial, in which a clinical decision support tool called EMBED (Emergency department initiated buprenorphine for opioid use Disorder) was implemented.

Screening

Potential patients with OUD were identified using a mix of two algorithms. These algorithms utilized both ICD-10 diagnostic codes related to opioid use and chief complaints from the provider chart correlated with substance use.

For patients at the study intervention sites who screened positive for potential OUD, attending physician(s) used EMBED as a buprenorphine decision support tool.

Results

The EMBED intervention did not affect the rate at which patients with OUD received buprenorphine (not statistically significant, P-Value>0.50).

1. Evidence suggests the EMBED intervention increased evidence-based care beyond buprenorphine administration. There was a statistically significant increase in physicians who prescribed naloxone upon discharge. (P<0.05)
2. EMBED increased the number of unique physicians who provided initiation of buprenorphine in the emergency department

"While the EMBED intervention didn't show a statistically significant improvement, a 10% increase in buprenorphine and significantly more naloxone was prescribed at the intervention sites."

-Dr. Ted Melnick, MD, MHS

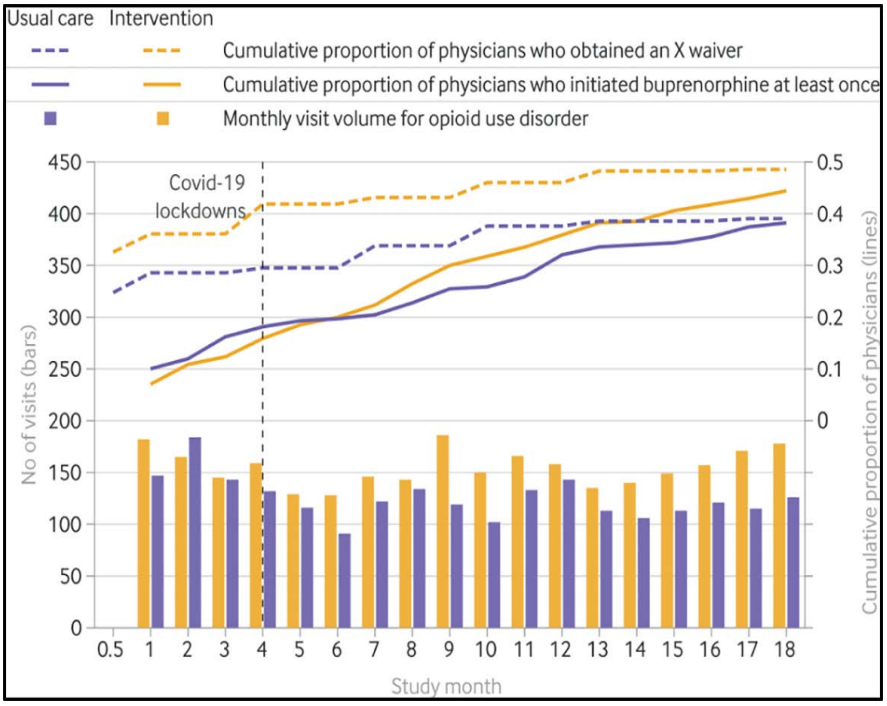


Table 4. Temporal trends in visits and treatments

CHAPTER 3: CLINICAL DECISION SUPPORT FOR BUPRENORPHINE AND OVERDOSE REVERSAL MEDICATION

BACKGROUND

Clinical Decision Support (CDS) plays a key role in the administration of medications for Opioid Use Disorder (MOUD). Integrating technology and data-driven guidelines into substance use disorder (SUD) treatment is an extremely important aspect of recovery efforts. CDS allows healthcare professionals to optimize treatment outcomes, improve patient safety, and contribute to the broader goal of reducing the devastating impact of opioid use disorder (OUD). This chapter aims to provide an understanding of CDS in the context of MOUD and overdose reversal medications. With the right knowledge and tools, healthcare providers can make informed decisions and deliver effective care to individuals experiencing OUD.

Overview of Medications for OUD

There currently are three medications approved by the FDA for OUD: buprenorphine, methadone and naltrexone. Methadone is subject to strict federal oversight, particularly regarding administration outside the hospital setting. It may not be prescribed for this indication, but instead must be administered at a licensed opioid treatment program. When a patient taking methadone is hospitalized, clinicians should continue them on their routine dose after confirmation with their outpatient program. New starts involve starting with a dose of 30-50 mg and then close follow up with an outpatient opioid treatment program.

Naltrexone for OUD is typically administered as a monthly injection to patients in long-term recovery who are no longer using opioids, methadone or buprenorphine. Administration of Naltrexone is usually a decision made with the patient's longitudinal provider.

Buprenorphine can be started in the inpatient or outpatient setting. It can be prescribed to the patient and filled at commercial pharmacies. Its initial dosing is not standardized but instead depends on the degree of withdrawal a patient is experiencing and their reaction to the initial dose(s). Therefore, buprenorphine is most amenable to CDS and will therefore be discussed in detail below.
The most commonly used and recommended overdose reversal medication is naloxone, also known by the brand name Narcan. Although another exists (nalmefene), its use has been discouraged by specialty societies due to its long half-life that can place a patient into prolonged precipitated withdrawal. Therefore, we will focus on CDS as a reminder to provide naloxone to at-risk individuals,

most typically at discharge from the hospital setting [2]. Although prescription of naloxone is better than not prescribing it, very few patients who are prescribed it during opioid-related visits fill the prescription. So a best practice is to actually dispense the patient a nasal naloxone kit in-hand at the time of discharge.

This chapter will discuss the challenges faced by healthcare providers when prescribing and managing MOUD and overdose reversal medications. Thes challenges include issues related to patient selection, dosing, monitoring, and potential drug interactions. By incorporating CDS systems into clinical practice, these challenges can be addressed, ensuring that healthcare providers have access to the most up-to-date information and guidelines for their decision-making process.

Buprenorphine CDS

Buprenorphine has proven efficacy in reducing cravings, withdrawal symptoms, and the risk of return to opioid use. Buprenorphine works because it is a partial opioid agonist that has high binding affinity for the mu-opioid receptor, but it does not fully activate it. As a result, patients treated with buprenorphine do not experience the same level of sedation or euphoria like other opioids, but it does treat withdrawal. However, if a patient has opioids in their system, administration of buprenorphine can replace these opioids on the receptor and rapidly induce withdrawal. Thus, it's crucial to know about how and when to start buprenorphine.

Barriers such as limited provider knowledge, misconceptions, and concerns about misuse about misuse have hindered its widespread adoption. CDS systems can play a crucial role in addressing these barriers and promoting appropriate buprenorphine prescribing practices. CDS systems can identify individuals who may benefit from buprenorphine treatment based on factors such as a history of OUD, recent overdose events, or unsuccessful attempts at discontinuing opioid use. This identification process helps healthcare providers proactively identify patients who may benefit from buprenorphine and initiate conversations about its potential benefits.

Once at-risk patients are identified, CDS systems can provide prompts, alerts, and reminders to healthcare providers during the prescribing process. These prompts can include evidence-based guidelines, best practices, and recommendations for buprenorphine prescribing. For instance, CDS systems can remind providers to conduct a thorough assessment of the patient's OUD.

Aspects of assessing OUD can include:

1. Evaluating the severity of the use disorder
2. Assessing readiness for treatment
3. Considering any co-occurring mental health conditions

These reminders ensure that buprenorphine prescribing is conducted in a comprehensive and patient-centered manner. CDS can also advise on dosing regimens. These are rapidly changing with potent fentanyl in the illicit drug supply. Steps to take to avoid or treat buprenorphine precipitated withdrawal can be another aspect of CDS.

Furthermore, CDS systems can:

1. Assist healthcare providers in determining the appropriate buprenorphine dosages and administration method based on individual patient characteristics.
2. Provide dosing guidelines.
3. Provide information on induction protocols.
4. List recommendations for monitoring and adjusting the dosage.

Initiation of buprenorphine typically follows a flow-chart. A normal starting dose will be 8-24 mg (depending on the degree of withdrawal and amount of opioid that the patient typically uses). Then, a second dose may be required if the patient still feels unwell or experiences precipitated withdrawal. If not improving after the second dose, adjuvant medications for symptom relief, such as ondansetron or clonidine can be given. Conversely, another approach is low-dose initiation, where small doses of buprenorphine (usually 0.5 mg as a starting dose) are administered and increased over the course of 5-14 days while the patient slowly reduces use of a full agonist opioid. As many non-addiction specialists do not routinely order or prescribe the medication, CDS can give essential guidance immediately at the time that the patient needs treatment. By offering this support, CDS systems help healthcare providers prescribe buprenorphine correctly, ensuring that patients receive the appropriate dose to manage their withdrawal symptoms and cravings effectively.

Overdose Reversal Medication: Naloxone

Naloxone, a powerful opioid antagonist, plays a pivotal role in combating opioid-related deaths by reversing the effects of opioid overdose. Naloxone quickly binds to opioid receptors in the brain, displacing and blocking the effects of opioids. This action rapidly restores normal respiration and prevents the potentially fatal respiratory depression caused by opioid overdose.

Naloxone also serves as an essential harm reduction strategy. It provides an opportunity for individuals struggling with opioid addiction to have a second chance. By reversing an overdose, naloxone creates a window of opportunity for healthcare professionals to engage with individuals, connect them to appropriate addiction treatment and harm reduction services, and provide support for long-term recovery when desired.

The CDC recommends that providers prescribe naloxone at the same time they prescribe opioids in situations where overdose risks are elevated. Despite this recommendation, studies show that very few patients are being prescribed naloxone with opioids.

The importance of CDS in increasing naloxone prescribing for patients at risk of an opioid overdose cannot be overstated. CDS systems can identify individuals who are at high risk of opioid overdose based on factors such as history of opioid use, concurrent benzodiazepine use, previous overdose events, or participation in

addiction treatment programs. This identification process allows healthcare providers to proactively target patients who would benefit from naloxone prescriptions. CDS can provide instructions on how to educate patients and their caregivers on naloxone use.

In conclusion, CDS can be used to inform prescribers how to start MOUD and to remind them to provide naloxone to at-risk patients. As with all CDS, it is important to balance this support with the alarm fatigue that many providers experience with too many alerts and "best practice advisories". However, order sets can effectively instruct providers how to start MOUD in a just-in-time manner. Additionally, as protocols frequently change due to the rapidly changing drug use patterns, it is essential to also keep CDS updated; having subject matter expertise that periodically reviews the tools for current best practices is essential. Finally, CDS should also allow room for clinical judgment as patients are unique and their needs may sometimes vary from what is recommended by CDS.

REAL WORLD EXAMPLES: NEBRASKA MEDICINE

Summary

At Nebraska Medicine, based in Omaha, providers are prompted to prescribe naloxone at the same time they prescribe opioids. This ensures it's on hand when people need it.

Methodologyy

When providers place orders for opioids, they see a Best Practice Advisory that reminds them to place an order for naloxone as well. The advisory created an opportunity to educate providers about the importance of naloxone and the risks of opioid dependence. The team gave providers educational materials that covered these key areas on their employee intranet and posted links to peer-reviewed journal articles for those looking to take a deeper dive into relevant studies. To help patient-provider conversations around naloxone go smoothly, the advisory prompts providers with language to use with patients who might be confused or offended by the offer of naloxone. Leadership also sat down personally with any providers who had concerns and talked them through the evidence that naloxone saves lives.

Results

Since Nebraska Medicine implemented the advisory, the number of naloxone prescriptions written at Nebraska Medicine has increased from a total of 145 in the five months prior to implementation to over 3,200 in the five months following implementation.

Nebraska Medicine extends its Epic system to other healthcare providers through its Community Connect program. As a result of this shared program, the number of prescriptions filled for naloxone statewide has risen from an average of 152 per month in the five months prior to implementation to an average of 640 per month in the five months following implementation. This is over a three-fold increase.

REAL WORLD EXAMPLES: UNIVERSITY OF CALIFORNIA- SAN DIEGO

Summary

UC – San Diego hospital, through its Opioid Stewardship Program, created a Medication for Addiction Treatment (MAT) order set. The goal of the order set was to improve care through a standard process for admitted patients who use drugs. The order set also became an educational tool for providers as all residents at UCSD completed a mandatory 2-week rotation of SUD before graduating.

Methodology

The MAT order set processes involve a multidisciplinary team at UCSD. One aspect of the MAT calls for nursing to administer the Clinical Opioid Withdrawal Scale (COWS) every 2 hours. Buprenorphine is then administered every time the COWS is greater than 8. The order set also includes additional screening for diseases such as HIV and Hepatitis.

The MAT order consults the hospital's social work and psychology teams. Those teams can then identify and assist the patient with potential OUD treatments upon discharge. Liaison psych services are also consulted through the MAT, which provide ongoing addiction medicine services after the patient leaves UCSD.

Results

UC-San Diego reported that patients treated through the MAT order set were less likely to be readmitted in the future as an inpatient. The order set also succeeded in its goal of increasing the utilization of buprenorphine for OUD patients.

> "Patients are less likely to come back as inpatients when treated through the MAT."
> -Dr. Greg Polston, MD

CHAPTER 4: THE CURRENT STATE OF OPIOID-RELATED CAPABILITIES IN ENTERPRISE EHRS: AVAILABILITY AND LEVEL OF TECHNICAL EFFORT

[WHITE PAPER]

INTRODUCTION

The U.S. opioid overdose epidemic is one of the most significant public health crises of our time. Successfully addressing the problem requires a comprehensive and multi-faceted approach involving all levels of prevention, including working to reduce the incidence of opioid use disorder (OUD) through responsible prescribing of opioid pain medications, initiating OUD treatment with medication and counseling, and implementing harm reduction to prevent overdoses, morbidity, and mortality secondary to drug use. The enterprise electronic health record (EHR) system is an under-utilized critical tool in the fight.

Opioid-related capabilities available today in EHRs can save lives by preventing misuse, reducing (and more effectively treating) overdoses, and proactively decreasing the risk of opioid addiction. The CHIME Opioid Task Force (OTF) has identified 13 essential EHR capabilities that span five distinct categories: education, monitoring, alerts, prescribing support, and screening. We believe these are capabilities that every enterprise EHR vendor should offer – and that every hospital and health system should prioritize, implement, and provide training for.

CHIME OTF'S THIRTEEN ESSENTIAL OPIOID-RELATED EHR CAPABILITIES (BY CATEGORY)

Category	Capability
Education	Patient discharge summary to include opioid precautions and education when opioids are prescribed.
	Embedded on-line resources for clinical information.
Monitoring	Dashboard and analytics for opioid prescribing practices that allows for data to be segmented and analyzed by prescriber, dept, location, etc.
Alerts	Alerts to co-prescribe Naloxone along with opioids and/or patients at high risk (e.g., post-OD).
	Alerts for patients on Benzodiazepines or other sedatives when prescribed opioids.
	Reminders for providers to review PDMP (Prescription Drug Monitoring Program) when prescribing opioids.
	Reminders for providers to review opioid use agreements annually.
Prescribing Support	Morphine Milligram Equivalent (MME) calculator that presents in the patient's summary, alerts, and prescribing workflow.
	Templates for order set creation and maintenance that reflect best practices for opioid prescribing, including non-opioid options.
	Clinical decision support that guides providers in proper prescribing of opioids and managing high risk patients.
Screening	Risk screening tools for patients with overdose or addiction history (e.g., Opioid Risk Tool, SOAPP, DAST).
	Tools/questionnaires that track or monitor function/pain levels for patients on opioids (e.g., PROMIS, PEG, DIRE).
	Screening tools with clinical decision support to account for patient type (e.g., pediatric, maternal, neonatal populations) or by different settings (e.g., ER, inpatient, outpatient).

AWARENESS AND DEGREE OF DIFFICULTY

Challenges Maximizing the value of the EHR to combat the opioid overdoseepidemic is essential. Clinical teams and IT leaders in your organization should be aware of all the pertinent capabilities available in your EHR – and then work together (along with your EHR vendor) to fully implement and configure that functionality so it can be correctly embedded in the right workflows.

Additionally, many of the capabilities listed in the table above require at least some degree of customization to produce the intended results. For example, your EHR system might have the ability to include opioid precautions and education in the patient discharge summary when opioids are prescribed, but is it automated to launch every time? Does the summary go to the right patient(s)?

Similarly, your EHR vendor may offer a dashboard for opioid prescribing practices, but is it usable and fully integrated? Does it show actionable information that clinicians can use to guide their decision making in real-time without leading to alert fatigue? The level of effort required from a technical customization and configuration perspective can vary widely depending on the type of functionality and the vendor's approach.

CHIME OTF'S SURVEY OF THREE LEADING EHR VENDORS

Failure to implement and customize the 13 essential capabilities due to lack of awareness or coordination between clinical and IT stakeholders may have fatal consequences for patients. Given the importance of the functionality defined above and the urgency of the opioid crisis, the CHIME OTF surveyed three of the most-highly used EHR vendors to get a better understanding of 1) the scope of opioid-related functionality that is available in enterprise EHRs today, and 2) the level of effort required to implement those capabilities correctly from a technology perspective.

Survey Methodology

From May until Oct of 2023, the CHIME OTF conducted interviews with a representative from each EHR vendor who was intimately familiar with the opioid-related capabilities in their product. All follow-up questions and clarifications were addressed via email following the initial interviews. Each vendor provided a final data update in August 2024 to ensure the accuracy and relevance of the information at the time of publication.

The responses provided by the vendors represent a snapshot in time. Opioid-related capabilities in all three vendor solutions can and likely will evolve rapidly. The CHIME OTF acknowledges that "level of effort" is an inherently subjective term, and as such, the experience of individual organizations that implement these capabilities may vary. For each of the 13 capabilities listed, there are critical change management efforts that need to accompany the technical work. The score for "level of effort" in this survey self-reported by each vendor represents solely the technical effort required to customize and configure the functionality.

Findings

The results of the CHIME OTF's survey serve as an important reminder about two key realities. Firstly, the level of effort needed for the technical customization and configuration of opioid-related functionality can vary. Work with your vendor and your IT/informatics team to maximize your unique workflow. Given the importance of these 13 essential capabilities as a whole, hospital and health system leaders need to account for the time and resources required so that all available capabilities are implemented correctly. If any capabilities listed above are not currently offered in your enterprise EHR, work with your vendor and IT team to establish a firm timeline of when your organization can expect to have them.

Secondly, vendors approach opioid-related capabilities differently. As such, the technical "degree of difficulty" – while relative – will vary from capability-to-capability and from vendor-to-vendor.

Underscoring these two key points, the survey specifically found:

- The vendors responded with the same score for only two of the 13 capabilities (15%).
- Six of the 13 capabilities (46%) received at least one "3) more effort / expertise" or at least one "4) requires vendor / future."
- Only one capability was scored as "1) little effort / pre-built" by all the vendors. Only two additional capabilities received multiple scores of "1) little effort / pre-built."
- Overall, the two capabilities that were scored with the highest "degree of difficulty" (each with an average score of 2.67) were:
    - Clinical Decision Support that guides providers in proper prescribing of opioids and managing high risk patients.
    - Risk screening tools for patients with overdose or addiction history (e.g., Opioid Risk Tool, SOAPP, DAST).

THE BOTTOM LINE

Opioid-related capabilities available today in enterprise EHRs can save lives. However, getting the most out of the EHR's massive potential to combat the opioid crisis requires that leaders across all areas of your organization have a strong understanding of what functionality is currently available and possible in the system. Your clinical and IT leaders must also know the level of technical effort required to correctly implement all 13 capabilities, and then work together – along with your core vendor – to ensure that functionality is customized in a way that maximizes informed decision-making. Success will also involve non-technical change management (e.g., cultural, and operational) that may be significantly more challenging than the technical effort required.

This survey regarding current opioid-related capabilities in leading EHR systems represents a snapshot in time. The opioid crisis is continuing to evolve, and technology needs to evolve accordingly. Functionality can change. Clinical and IT stakeholders in your organization must understand what is available in your EHR today – and the best ways to leverage that functionality – while also working closely with your vendor to understand their plans.

The 13 capabilities outlined in this article should be strongly considered.

They are vital to fighting this devastating public health crisis and saving lives.

CHIME OTF'S SCORING OF EACH VENDOR'S OPIOID-RELATED CAPABILITIES

Category	Capability	Vendor A	Vendor B	Vendor C
Education	Patient discharge summary to include opioid precautions and education when opioids are prescribed.	3	2	2
	Embedded on-line resources for clinical information.	1	1	2
Monitoring	Dashboard and analytics for opioid prescribing practices that allows for data to be segmented and analyzed by prescriber, dept, location, etc.	1	2	2
Alerts	Alerts to co-prescribe Naloxone along with opioids and/or patients at high risk (e.g., post-OD).	2	1	2
	Alerts for patients on Benzodiazepines or other sedatives when prescribed opioids.	2	2	2
	Reminders for providers to review PDMP (Prescription Drug Monitoring Program) when prescribing opioids.	3	1	2
	Reminders for providers to review opioid use agreements annually.	1	1	2
Prescribing Support	Morphine Milligram Equivalent (MME) calculator that presents in the patient's summary, alerts, and prescribing workflow.	2	1	2
	Templates for order set creation and maintenance that reflect best practices for opioid prescribing, including non-opioid options.	3	2	2
	Clinical decision support that guides providers in proper prescribing of opioids and managing high risk patients.	3	2	3
Screening	Risk screening tools for patients with overdose or addiction history (e.g., Opioid Risk Tool, SOAPP, DAST).	4	2	2
	Tools/questionnaires that track or monitor function/pain levels for patients on opioids (e.g., PROMIS, PEG, DIRE).	1	1	1
	Screening tools with clinical decision support to account for patient type (e.g., pediatric, maternal, neonatal populations) or by different settings (e.g., ER, inpatient, outpatient).	2	1	3

Key for "Degree of Difficulty"

1) Little effort/pre-built	2) Pre-built w/ customization	3) More effort/expertise	4) Requires vendor/future

White paper created by the CHIME Opioid Task Force Clinical Advisory subcommittee with special contributions from: Jason Fortin, Sean Kelly, MD, Patty Lavely, John Lee, MD, Greg Polston, MD, Jonathan Siff, MD, and Scott Weiner, MD, MPH. Orginally released in September 2024.

CHAPTER 5: INTEROPERABILITY SUPPORTING CONTINUUM OF CARE

INTRODUCTION

In addressing opioid use disorder (OUD) interoperability can play a key role. Unfortunately, the sharing of patient data across the continuum of care is currently a challenging roadblock in treating those who need care. Due to financial and logistical constraints, many behavioral health providers utilize smaller, inadequate electronic healthcare record (EHR) systems that don't integrate with clinical partners. Technological solutions, for example, in the areas of artificial intelligence (AI) and machine learning (ML) provide hope for future improvements. Policy improvements, such as streamlining consent processes, offer another area of progress. Interoperability is a complicated challenge in treating OUD, but existing solutions provide hope for the future.

PROBLEM STATEMENT

The intersection of behavioral health and the opioid crisis presents a multifaceted challenge that necessitates robust and integrated data interoperability solutions. Effective integration of behavioral health services within the broader healthcare system is crucial for addressing the complex dynamics of opioid misuse and addiction. The current environment, however, is characterized by numerous barriers that impede the seamless exchange of critical health information across the healthcare continuum.

CURRENT ENVIRONMENT

To analyze potential solutions, challenges in the current environment must first be understood. Technological, financial, cultural, and legal challenges all hinder interoperability in behavioral health, particularly in the context of combating the opioid crisis. Understanding these barriers is essential for developing strategic solutions that enhance data sharing, improve patient outcomes, and support public health initiatives.

Technological Barriers

Interoperability in behavioral health faces significant technological challenges. Many healthcare providers, especially those in behavioral health, continue to utilize smaller EHR systems not designed to support modern interoperability standards. These systems often operate on proprietary platforms, making data exchange with newer, cloud-based systems cumbersome and inefficient.

Another barrier is the lack of standardization across EHR systems. Interoperability relies on consistent formatting and transmission of data. Yet, the absence of

uniform standards, such as Health Level Seven (HL7) and Fast Healthcare Interoperability Resources (FHIR), poses challenges for sharing nuanced behavioral health information, leading to fragmented records and suboptimal care.

Integration complexity further exacerbates these barriers, as diverse EHR systems require sophisticated technical solutions and specialized expertise. Despite the availability of interoperability protocols, their inconsistent adoption across healthcare perpetuates silos of information, impeding comprehensive patient care.

Financial Barriers

Financial constraints also hinder interoperability in behavioral health. High implementation costs associated with upgrading EHR systems and training staff can be prohibitive. Behavioral health providers often face limited funding opportunities compared to other healthcare sectors, making it difficult to prioritize interoperability initiatives.

The unclear return on investment (ROI) associated with interoperability further discourages organizations from committing to necessary investments. While long-term benefits like reduced medical errors and improved patient retention are significant, they are difficult to quantify in the short term, slowing overall progress.

Cultural Barriers

Cultural barriers within healthcare organizations also impede interoperability. Resistance to change, driven by apprehension about new systems and workflows, is common. Additionally, the siloed mentality in healthcare sectors limits collaboration and data sharing, particularly in behavioral health. Stigma and privacy concerns surrounding behavioral health data further complicate efforts to share critical information for coordinated care.

Legal and Regulatory Barriers

Stringent privacy regulations, such as HIPAA and 42 CFR Part 2, are essential for protecting patient confidentiality but can restrict the sharing of critical information. Navigating overlapping requirements adds layers of complexity to interoperability initiatives, delaying data sharing and care coordination. Recent regulatory changes have introduced opportunities to streamline consent and expand data sharing capabilities, but many providers remain unaware of these updates.

Impact on the Opioid Crisis

The lack of interoperability impedes the coordination of care for individuals struggling with opioid use disorder. Fragmented information leads to duplicated services, delays in intervention, and poorer health outcomes. Addressing these barriers is imperative for mitigating the opioid crisis and improving patient outcomes.

The challenges of achieving interoperability in behavioral health demand coordinated efforts from all stakeholders. By overcoming technological, financial, cultural, and legal obstacles, the healthcare system can move toward a more integrated and responsive framework to combat the opioid epidemic.

FUTURE SOLUTIONS

Technological Innovations

Artificial Intelligence and Machine Learning

AI and ML are pivotal in addressing the opioid crisis. Predictive analytics models enable early identification of individuals at high risk for opioid use disorder, allowing for timely clinical interventions. Additionally, AI helps personalize treatment plans by analyzing patient data to recommend individualized care strategies. These technologies also support real-time monitoring and adjustments to care plans, enhancing treatment adherence and reducing relapse rates.

Advanced APIs and Interoperability Standards

The integration of robust application program interfaces (APIs) adhering to standards such as fast healthcare interoperability resources (FHIR ensures seamless data exchange across healthcare systems. These APIs enable providers to access and share accurate patient records, facilitating coordinated care. Next-generation interoperability standards like FHIR streamline data sharing, reduce redundancy, and promote efficiency, particularly in behavioral health settings.

Policy and Regulatory Enhancements

Streamlined Consent Processes

Simplifying consent mechanisms through standardized forms and digital tools improves patient engagement and trust. These tools make it easier for patients to authorize data sharing securely, enhancing data exchange and care coordination.

Incentivizing Interoperability

Financial incentives and public-private partnerships encourage behavioral health organizations to adopt interoperable systems. Initiatives like the California Technical Assistance Program provide funding to support the implementation of certified EHR technology, enabling smaller organizations to prioritize interoperability.

Harmonizing State and Federal Regulations

Aligning state and federal regulations simplifies compliance and fosters nationwide interoperability. Collaborative efforts to harmonize policies ensure consistent, secure data-sharing practices while balancing patient privacy with the need for comprehensive access to information.

COLLABORATIVE APPROACHES

Building Integrated Care Networks

Integrated care networks foster collaboration between behavioral health providers, primary care physicians, and public health agencies. These networks enable seamless communication and coordination, leading to improved patient outcomes and a more cohesive care ecosystem.

Creating Unified Care Pathways

Unified care pathways supported by interoperable systems reduce redundancies and enhance care continuity. By centralizing patient data and streamlining workflows, these pathways improve the efficiency and effectiveness of care delivery.

THE BOTTOM LINE

Caring for patients with OUD requires the coordination of a variety of community facilities, a multitude of professionals, and timely interventions. The success of this support network requires improved interoperability to deliver quality care to patients.

The solutions outlined in this chapter demonstrate the transformative potential of technology, policy innovation, and collaboration in addressing the opioid crisis. By adopting advanced interoperability standards, the healthcare system can overcome existing barriers and deliver more effective, coordinated care. These efforts are essential for improving patient outcomes, reducing the burden of opioid misuse, and strengthening the overall resilience of the healthcare system.

CHAPTER 6: KEYS TO NAVIGATING THE CHANGES IN THE 42 CFR PART 2 FINAL RULE

BACKGROUND

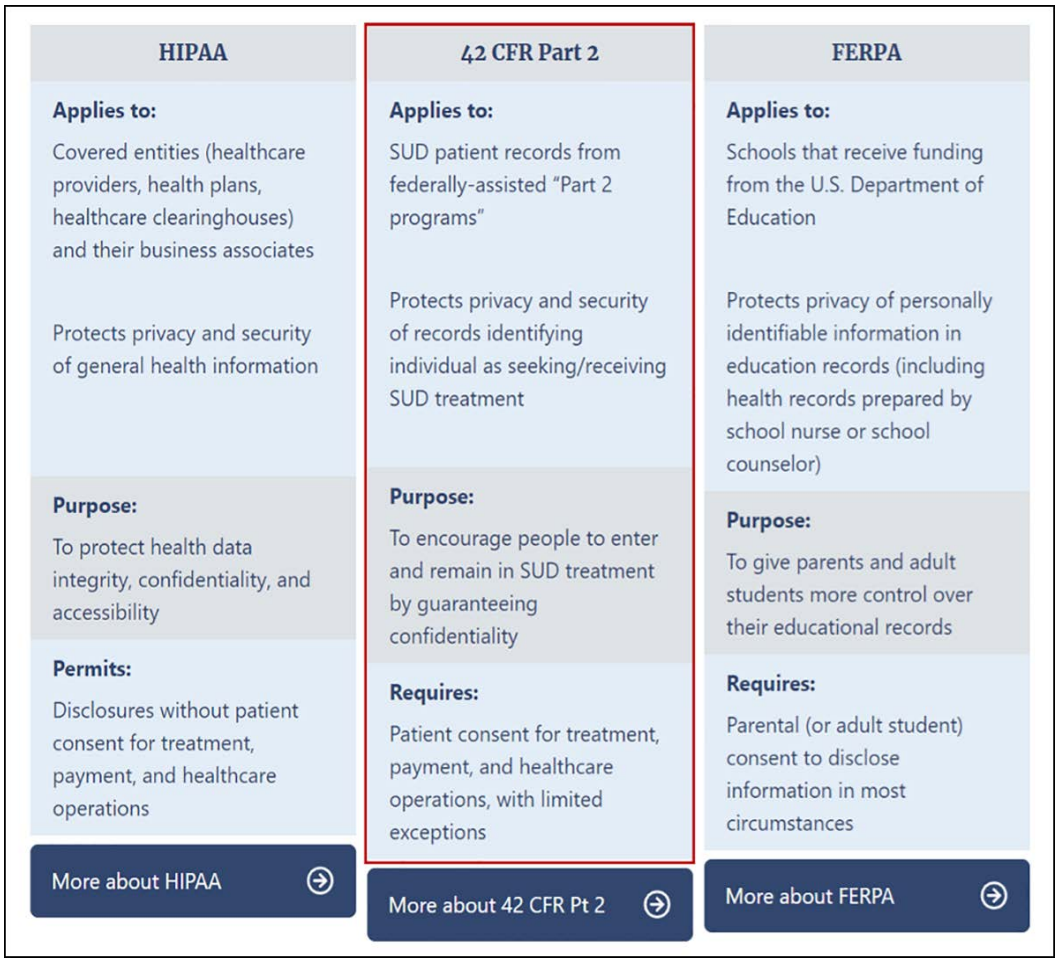
The U.S. Department of Health & Human Services (HHS) published a final rule updating the Confidentiality of Substance Use Disorder (SUD) Patient Records at 42 CFR part 2 (a.k.a. "Part 2"). Part 2 became effective on April 16, 2024, and compliance is required by February 16, 2026. The changes to Part 2 have profound implications for improving the exchange of SUD-related data, but to achieve the intended benefits, healthcare delivery organizations will need to embrace a new way of thinking about SUD information.

There are multiple privacy laws that apply to U.S. healthcare delivery organizations. The changes made in this final rule pertain to 42 CFR Part 2. For context, per this fact sheet from HHS:

> *The Part 2 statute (42 U.S.C. 290dd-2) protects '[r]ecords of the identity, diagnosis, prognosis, or treatment of any patient which are maintained in connection with the performance of any program or activity relating to substance use disorder education, prevention, training, treatment, rehabilitation, or research, which is conducted, regulated, or directly or indirectly assisted by any department or agency of the United States.' Confidentiality protections help address concerns that discrimination and fear of prosecution deter people from entering treatment for SUD.*

Nuances Between Key Privacy Laws

Table 1. Nuances Between Key Privacy Laws



HIPAA	42 CFR Part 2	FERPA
Applies to: Covered entities (healthcare providers, health plans, healthcare clearinghouses) and their business associates Protects privacy and security of general health information	**Applies to:** SUD patient records from federally-assisted "Part 2 programs" Protects privacy and security of records identifying individual as seeking/receiving SUD treatment	**Applies to:** Schools that receive funding from the U.S. Department of Education Protects privacy of personally identifiable information in education records (including health records prepared by school nurse or school counselor)
Purpose: To protect health data integrity, confidentiality, and accessibility	**Purpose:** To encourage people to enter and remain in SUD treatment by guaranteeing confidentiality	**Purpose:** To give parents and adult students more control over their educational records
Permits: Disclosures without patient consent for treatment, payment, and healthcare operations	**Requires:** Patient consent for treatment, payment, and healthcare operations, with limited exceptions	**Requires:** Parental (or adult student) consent to disclose information in most circumstances
More about HIPAA	More about 42 CFR Pt 2	More about FERPA

Key Changes in the Part 2 Final Rule

Summary of Key Provisions in the 42 CFR Part 2 Final Rule: Confidentiality of SUD Patient Records

- **Patient Consent:** Allows a single consent for all future uses and disclosures for treatment, payment, and health care operations (TPO).
- **Redisclosure:** Allows HIPAA-Covered Entities, Part 2 programs, and Business Associates (BA) that receive records under this single consent to redisclose the records in accordance with the HIPAA regulation.
- **Civil, Administrative, or Legislative Proceedings:** Consent or a court order is still required for use, disclosure, and redisclosure; Expanded prohibitions on the use and disclosure of Part 2 records in certain proceedings against the patient, including prohibitions for use for testimony.
- **Revocations:** The revocation of consent should only affect Part 2 record sharing from the point of revocation going forward.

- **Oral Revocations:** The revocation of a TPO consent must be in writing.
- **Notice to Accompany Disclosures:** Each disclosure made with the patient's written consent must be accompanied by a copy of the consent or a clear explanation of the scope of the consent provided.

In terms of what hasn't changed, per HHS:

> *'As has always been the case under Part 2, patients' SUD treatment records cannot be used to investigate or prosecute the patient without written patient consent or a court order. Records obtained in an audit or evaluation of a Part 2 program cannot be used to investigate or prosecute patients, absent written consent of the patients or a court order that meets Part 2 requirements.'*

What are the Potential Benefits and Challenges of the Part 2 Final Rule?

Prior to the changes in Part 2, the process of sharing critical, potentially life saving data related to substance use disorder (SUD) was cumbersome and inefficient, marked by complicated reporting requirements for redisclosures and strict rules to segregate SUD-related data. The goal of the previous regulations was to ensure patients felt comfortable seeking care without the stigma associated with SUD, but in today's fully electronic environment, the old way of doing things is simply no longer tenable and represents a fundamental risk to patient safety.

By allowing a single consent for all redisclosures of SUD information and eliminating federal restrictions to segregate SUD data, the changes in the Part 2 Final Rule will – at least in theory – streamline the flow of SUD data across the care continuum and help ensure clinicians have access to more comprehensive patient information. The impact of the Part 2 Final Rule in practice will depend on providers' willingness and ability to embrace the new changes in a timely manner.

Hospitals, health systems, physician practices, Health Information Exchanges (HIEs), and HIT vendors are notoriously risk averse. Change in healthcare delivery – even change mandated by federal or state regulations – takes time, and widespread adoption frequently only occurs upon the introduction of financial incentives or penalties. Look no further than the industry's experience with Meaningful Use, Information Blocking, and many other regulations that necessitated major process and IT changes.

Exacerbating the problem is the perception of SUD data stemming from how information was handled before enactment of the Part 2 Final Rule. The level of risk and liability previously associated with incorrectly redisclosing SUD data has been so ingrained in health delivery's collective consciousness that expecting a seamless pivot overnight is not realistic. Significant work will be required by hospitals, health systems, behavioral health providers, HIEs, and IT vendors to achieve the benefits possible from the Part 2 Final Rule – and that work needs to begin now.

KEY STEPS TO NAVIGATING THE CHANGES

There are three key steps that any hospital or health system should take immediately to ensure compliance with the Part 2 Final Rule:

1. **Determine how the new Part 2 requirements will apply in your state.** Establishing the processes, policies, and procedures needed to comply with the requirements in the Part 2 Final Rule will hinge significantly on the existing laws and regulations about SUD data in your state. Per the Part 2 Final Rule: "Section 2.20 establishes the relationship of state laws to part 2 and provides that part 2 does not preempt the field of law which it covers to the exclusion of all applicable state laws, but that no state law may either authorize or compel a disclosure prohibited by part 2." In other words, any state law that is more restrictive will still apply.

   The differences between states can be significant. As such, work with your legal counsel and/or regulatory team to determine what restrictions exist in your state – and what the restrictions mean for complying with the Part 2 Final Rule.

2. **Engage with other providers in your region, your HIE(s), and your core IT vendor(s).** Many of the processes your organization develops to comply with the Part 2 Final Rule will likely be influenced (at least in part) by how and when the providers in your region, your HIE(s), and even your core IT vendor(s) approach the required changes. For example, if hospitals and health systems in your area are unwilling or unable to send or receive SUD data until the compliance deadline of 2/16/26, efforts to streamline the flow of that information across are settings will be inherently challenging.

   Outreach to local providers and regional HIEs is essential to understand how they plan to comply with the new requirements. As previously noted, there may be some reluctance among stakeholders to embrace significant change after years of warnings about the risks and liability associated with incorrectly redisclosing SUD information. Education may need to be an integral component of your engagement plan. Be sure to share any success stories you've heard from peers in states with SUD laws similar to yours.

3. **Develop and execute a communication plan for staff and patients.** After your leadership team works with clinical, operational, and IT stakeholders in your organization to define and implement the processes, policies, and procedures needed to comply with the Part 2 Final Rule in your state, it is critical to communicate those changes to your staff and your patients.

   Depending on their role, your staff may have significantly different experiences with and exposure to SUD data. Develop specific talking points to effectively engage with different types of stakeholders in your organization, whether clinicians, patient access staff, IT employees, or others.

Be sure to designate and actively promote key points of contact internally who staff can turn to with questions or concerns. It is important that staff know what to do and whom to contact when questions arise. Lean on lessons learned about engagement and communication from your experience with Information Blocking and other regulations that required new ways of thinking about patient data. Making the most of the existing methods of communication that staff are familiar and comfortable with, such as email distribution lists or signage in staff break rooms, is essential.

When it comes to patients, remember that most will rightfully consider their SUD data highly sensitive. There remains an unfortunate and misguided stigma about SUD in our society, and many patients may fear that inappropriate redisclosure to an employer, insurance company, or even a family member could have severely negative consequences. While those concerns are understandable, it is important to actively remind patients about providers' existing obligations under HIPAA.

Clinicians have long had access to sensitive data on the patients they treat – and just as a physician is prohibited from inappropriately sharing a terminal diagnosis, a chronic condition, or even a minor sports injury, they are also prohibited from inappropriately sharing SUD data.

Also focus your patient communication efforts on the clinical benefits of the changes. Easy to understand and relatable use cases are invaluable.

- How do the changes in the Part 2 Final Rule affect the care the patient can expect to receive?
- How do the changes impact their family members? How can the changes save their life?

For example, if a patient with SUD visits the emergency department, the ED clinicians need to know what medications that patient is taking, their history with drugs or alcohol, and any chronic conditions from use of those substances. Not being able to see the full picture could have fatal consequences, whether in the form of a deadly drug interaction or a relapse.

THE BOTTOM LINE

The changes in the Part 2 Final Rule will have profound implications on improving the way that SUD data is exchanged. **These requirements not only represent current federal law; they will save lives.** Waiting until the enforcement deadline of February 16, 2026, to implement changes is neither practical nor in the best interest of patients. Hospitals, health systems, behavioral health providers, HIEs, and HIT vendors need to act now.

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