

**Pennsylvania's Quality Incentive Program for Opioid Use Disorder: A Call To
Action For Emergency Departments**

by

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Abstract

The Opioid Crisis is of significant public health relevance, as more than 2 million Americans suffer from opioid use. The State of Pennsylvania Human and Health Services (HHS) Department offered an opportunity for hospitals to participate in a quality incentive program when treating Medicaid patients coming into the Emergency Department with opioid use disorder (OUD). Beginning in 2019, the program included two phases; the first phase would pay hospitals for implementing treatment pathways for patients in 2019, and the second phase required follow up care for these patients to be evaluated in 2020. Hospital System X (HSX) and its seven hospitals decided to be a part of this pilot program to mitigate the opioid epidemic within Pennsylvania. HSX successfully implemented the first phase in 2019, and is currently preparing for the second phase of the program.

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1.0 Opioid Crisis

Opium comes from the poppy plant, and upon consumption, can produce pain relieving affects (Feige & Miron, 2008). Opium is a natural opiate, whereas opioids are at least partially synthetic. The synthetic nature of opioids means that they can be more potent and therefore more addictive and dangerous to use (Recovery Centers of America, 2017). There is currently an overuse of opioids within the United States that can be viewed as having occurred in three separate waves. The first wave included the exponential number of prescriptions written to relieve pain, which was pushed by pharmaceutical companies anxious to sell their products. The second wave included an increase in heroin usage, and the third wave included movement away from heroin towards fentanyl when strict guidelines on prescribing opioids were implemented (Liu, Pei, & Soto, n.d.). The federal government approached the third wave of the opioid crisis by providing funding to each state, as each state grappled with appropriating this money in the optimal way to provide resources in its state to combat the epidemic.

The first wave of the opioid crisis traces its origins to around 1991, when there was a push to treat pain as the “fifth vital sign”. The initial four vital signs for medical treatment included body temperature, blood pressure, pulse, and respiratory rate (Cleveland Clinic, 2019). In the mid-1990s there was a push from the American Pain Society to add pain as the fifth vital sign. In 2000, The Joint Commission accepted that pain was the “fifth vital sign”, and recommended that there be an assessment of pain at each clinical visit. This led to physicians prescribing higher amounts of pain medications to their patients, backed by the reassurance of the pharmaceutical companies that the pain relievers were safe and non-addictive. Pharmaceutical companies capitalized on this new market for pain management beyond non-cancer patients (Vadivelu, Kai, Kodumudi, Sramcik, & Kaye, 2018). Prior to the acceptance of The Joint Commission accepting the “fifth

vital sign”, pain management opioid prescriptions were predominantly used to treat cancer patients. By 1999, more than 80% of those using prescription opioids were non-cancer patients (Liu, Pei, & Soto, n.d.).

The second wave of the opioid crisis began around 2010 when oxycontin was no longer crushable, which prevented users from injecting the drug. As the government became stricter on allowing prescription opioid drugs, efforts to circumvent their use caused a higher use of heroin, along with the diversion of opioid drugs prescribed off label. The government, while stemming one area of opioid addiction, did not provide a program for sterile syringes for those opioid users injecting drugs. Programs such as providing syringes could help prevent spread of diseases, which were causing an increase in deaths. Heroin is relatively cheap and easy to obtain compared to other opioids, and additionally, leads to an increase risk for HIV/AIDS, hepatitis B and C, and skin infections, as heroin is commonly injected (Liu, Pei, & Soto, n.d.).

The third wave began around 2013-2014 with an increase in deaths due to synthetic fentanyl. The death toll only continued to climb, with approximately 20,000 deaths relating to opioids occurring in 2016 (Rubin, 2017).

Today, 2.6 million Americans suffer from opioid use disorder (OUD) (Rubin, 2017). “Opioid Use Disorder (OUD) is defined by the Diagnostic and Statistical Manual of Mental Disorders (fifth edition),¹ as the maladaptive use of opioids, prescribed or illicit, resulting in two or more criteria that reflect impaired health or function over a 12-month period” (Connery, 2015). An individual’s usage of opioids does not define the disorder, but rather the impact on that individual’s health and mental or physical function defines OUD.

Centers for Disease Control (CDC) and the US Government have established guidelines for prescribing opioids to non-cancer, palliative care, and end-of-life care patients. The change in regulations by the CDC concerning who can prescribe opioids, and how often they are allowed to

prescribe them, has shifted; hospitals and large healthcare organizations are now measured on quality in regards to opioids and pain management. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey are used to help determine hospital reimbursements. The Centers for Medicare and Medicaid Services (CMS) declared in 2018 they would no longer consider questions related to pain on the HCAHPS survey when considering hospital reimbursements. This decision was driven by concerns that over-prescribing pain medications was due to a probability that hospitals would receive better survey scores by patients who would give favorable ratings on pain related questions. There is some controversy over whether there, actually, was a correlation between increased prescribing of opioids due to fear of not scoring well on the HCAHPS survey (Mattina, 2017).

2.0 Opioid Treatments

As opioid use has risen to new heights, treating OUD has become more urgent. According to the Substance Abuse and Mental Health Services Administration (SAMHSA) there are specific requirements for providers to be allowed to provide Medication Assisted Treatment (MAT) (Kampman & Jarvis, 2015). Only providers who have received special training to prescribe opioids (known as having an x-waiver) are allowed to prescribe MAT. These providers must go through educational trainings and can only prescribe a limited number of opioids each year. MAT involves a combination of medications and therapy to help treat OUD and prevent relapses. The medications used for MAT can include buprenorphine, methadone, and naloxone (more in appendix). Buprenorphine and methadone can be administered while the patient still has opioids in their systems. Buprenorphine is typically prescribed when a patient is going through opioid withdrawal, to prevent buprenorphine-precipitated opioid withdrawal. Methadone administration is different, and the patient does not have to be in withdrawal to give the first dose. Methadone is usually given in a step-wise fashion that starts with a small dose and builds up the dosage to avoid over-sedation and overdose, because methadone itself is addictive (SAMHSA, n.d.).

In a study conducted, providers who had the fewest concerns around prescribing pain medication to their chronic noncancer pain (CNCP) patients were the providers whose organizations were affiliated with opioid prescribing guidelines and had accessibility to pain consultations (Franklin, Fulton-Kehoe, Turner, Sullivan, & Wickizer, 2013). Opioids are continually being studied to determine the safest and most effective ways for prescription opioids to relieve pain without patients becoming addicted or misusing the medicine. The Centers for Disease Control (CDC) established a set of guidelines with 12 recommendations (CDC, 2019).

3.0 Quality Improvement Program

The Centers for Disease Control and Prevention noted that the opioid crisis costs the United States economy \$78.5 billion a year. This economic burden comes from lost productivity of the individuals with OUD, healthcare treatment costs, and criminal justice costs (National Institute on Drug Abuse, 2019). This economic factor was taken into account in July 2017 when the President’s Commission on Combating Drug Addiction and the Opioid Crisis issued a report with several recommendations for the government to mitigate the opioid crisis for its citizens. Money was allocated to be used specifically for opioid prevention and recovery methods. The federal government, through the Centers for Disease Control, allocated varying one-time amounts per state based on need (HHS Press Office, 2019). The Department of Health and Human Services (DHS) announced, through the Hospital and Health system Association of Pennsylvania (HAP), a quality incentive program aimed at targeting opioid use disorder (OUD) through hospitals’ Emergency Departments (CDC, 2019) [Appendix B]. The quality improvement program is a modification of the Healthcare Effectiveness Data and Information Set (HEDIS) program “Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA)”. DHS limits the modification to include only opioid use disorder and opioid poisoning diagnoses, rather than all drug use, limiting the scope of their program to target only patients with OUD. HEDIS currently only measures the primary diagnosis on a patient’s chart, when looking at the claim/encounter. The DHS modification allows opioid diagnoses to be included up to the ninth position in the patient’s chart, which reflects in claims/encounter in billing, as an opioid poisoning. This is how hospitals are to be reimbursed by Medicaid for these patients [Appendix C].

The incentive program is designed to allow hospitals to receive incentive payments for implementing one of four pathways created by the government for use in hospital Emergency Department 's (ED) for treatment of OUD for individuals with Medicaid. The goal of the program is to eliminate the need for repeat treatment and revisits in the ED for patients with OUD by assisting these individuals in receiving additional help within seven days of their care in the ED. If an individual who received OUD treatment returns to the ED within seven days, the DHS will evaluate these events separately, as another ED visit is not an acceptable follow-up within the seven-day period. There are two phases to the program, with the first phase called the 'Process Incentive' phase.

The first phase was the implementation of clinical pathways in Year 1 (2019). The second phase was 'Outcome Incentive'; the measurement of the effectiveness for seven-day follow-up after OUD treatment in the ED, to occur in Year 2 (2020). Both phases have one-time incentive payments attached to them [Appendix B].

The DHS program is structured with incentive payments distributed in 2019-the amount allocated totaling \$30 million across all participating hospitals. An additional \$5 million dollars was allocated for benchmark and incremental payments that are to be made in 2020 for performance related to seven-day follow up care. In total, the program amounts to \$35 million in payments towards helping patients with OUD [Appendix B]. Participating hospitals were classified by Community HealthChoices (CHC) members (Pennsylvania's managed care program for dually-eligible Medicare and Medicaid patients) seen in the ED for OUD. Hospitals were divided into one of three tiers based on their patient volume in the ED relating to OUD, and trending performance data from the Calendar Year 2016.

a. "Tier 1: Low-Volume EDs – Hospitals that had less than 20 OUD ED visits must have a minimum of 1 HealthChoices recipient.

b. Tier 2: Standard EDs – Hospitals that had between 20 and 200 OUD ED visits must have a minimum of 10 HealthChoices recipients.

c. Tier 3: High Volume EDs - Hospitals that had more than 200 OUD ED visits must have a minimum of 20 HealthChoices recipients.” [Appendix B]

The program was set up so that the hospitals had to meet four requirements to be considered eligible to receive the incentive payments. Each hospital system had the opportunity to do this with all of their hospitals on a hospital by hospital basis.

1. Each of the pathways utilized had to be defined in writing by September 28, 2018, and the minimum HealthChoices recipients reached by January 17, 2019.

2. Care management teams had to be operationalized, with 24 hours coverage, and ED personal trained on OUD guidelines of care, stigma, medicated-assisted treatment (MAT).

3. Hospitals had to attest to these requirements by a deadline of November 30, 2018.

4. Hospitals had to submit electronic continuity of care documents (CCDs) to the Department for Medicaid recipients by July 1, 2019, or prove that they were in the process of working toward this goal.

Along with meeting the requirements listed above in the 2019 year, participating and eligible hospitals could be paid for implementing clinical pathways; for treatments of patients with OUD. There are four pathways which hospitals could implement, with implementation of each pathway giving the hospitals a chance to earn more money. The implementation of the clinical pathways is used to help treat patients with OUD coming into the Emergency Department, improve the seven-day follow-up care, and reduce variability of care being provided across the state. Implementation of each of the pathways is valued with increasing payouts with the more pathways initiated. The base payment of \$25,000 would be awarded for one pathway. Implementation of the second, third, and fourth pathways are as follows: \$37,000 – 2nd, \$56,00 – 3rd, and \$75,000 – 4th. The clinical

pathways that could be implemented by the hospitals for payment are as follows:

1. “ED initiation of buprenorphine¹ with warm hand off to the community;
2. Direct warm hand off to the community for MAT² or abstinence based treatment;
3. Specialized protocol to address pregnant women with OUD; and
4. Direct inpatient admission pathway for methadone or observation for buprenorphine induction.” [Appendix B]

Hospitals who implemented all four pathways would receive a one-time payment of \$193,000, and potentially more, which would be dependent upon whether other hospitals participating in the HAP program in the state of Pennsylvania were able to implement all four clinical pathways. Remaining funds, after the competition of pathway payments, were divided among the hospitals who implemented all four clinical pathways [Appendix B].

¹ Buprenorphine is a medication commonly prescribed to OUD patients. It is a partial opioid agonist meaning it binds to the same mu-receptor in the nervous system that opioids bind helping to relieve withdrawal symptoms (Information, Pike, MD, & Usa, 2009).

² Medication Assisted Treatment (MAT), involves a combination of medications and therapy to help treat OUD, and prevent relapse (Kampman & Jarvis, 2015).

4.0 Implementation

Hospital System X (HSX) was made aware of this program through HAP, of which they are a member, applied to participate in the program in 2018, and was deemed eligible to participate by the state. Participating in the program was a decision agreed upon by the CEO, and CQO of the System, with approval to move forward by the board. The project is led by the Vice President of Quality and Safety for the System, the chair of HSX's Emergency Services Institute, as well as by Addiction Medicine. Additional key stakeholders for this project include departments such as regulatory, case management, strategy, and nursing education. Other key stakeholders may be found in Appendix D.

HSX has seven hospitals, all of which hospitals were placed into tiers based on their Calendar Year (CY) 2016 and CY 2017 claims data and volume of Health Choice recipients. None of the seven hospitals fell into Tier 1. The hospitals that fell into Tier 2 include Hospital X1, X2, and X3. The other 4 hospitals; Hospitals X4, X5, X6, and X7 all fell into Tier 3.

HSX decided to participate in the program for a myriad of reasons. The first and foremost was the alignment of the program with their vision of embracing health, while following through on their values to provide innovative and excellent patient care to help improve the health of the communities they serve. Additionally, HSX wished to provide better care, better health, create the foundation for more resilient systems, and for the obvious financial incentives advertised by the state. By participating in the OUD program, HSX is helping to provide the highest quality of care

to every patient, and improve the well-being of every patient served to form a healthier community. The program provided an opportunity to collaborate with the state, and other organizations within the state of Pennsylvania, to design the best methods of treatment.

At the start of the project, the first steps taken by HSX were to develop a project charter, identify sponsors and key stakeholders, create work streams/teams, set meetings, and review cases and outliers with ED staff. Once these sponsors were identified, three work streams were created; education, technology assistance, and reporting capabilities. Next, trainings sessions were dispersed among nurses, social workers, and physicians regarding the definition of opioid use disorder, how to treat it, and how to stay unbiased and non-judgmental towards these patients. The latter was an attempt to make the OUD patient feel comfortable receiving treatment, and be willing to accept the help of hospitals in their overall treatment. Training was divided into three different training videos; one specifically for nurses, another for social workers, and the third for physicians. This was done because these healthcare employees perform different roles when interacting with patients with OUD. These trainings aids were the first step in the process, with knowledge and foresight that policies would need to be updated, and there must eventually be a simplification and standardization of parts of the processes that would allow for a more system oriented process. This would ensure the system is more effectively and efficiently able to capture patients who enter the EDs with OUD, and ensuring that the patients make it to follow up treatments.

5.0 Outcomes and Limitations

HSX has completed Year 1; the process initiative phase. They received the maximum money for implementing all four pathways. They also received additional payments from the residual funds remaining in the program, as not all of the potentially eligible hospitals within Pennsylvania operationalized their pathways last year. The amount HSX received across their seven hospitals totaled \$2,013,177 for the successful implementation of all the pathways.

Year 2 started in 2020, during which hospitals will be assessed based on whether or not patients with OUD received follow up care within seven days of discharge from the ED. Participating EDs, including HSX, are tasked with figuring out best ways to provide follow up care within the required seven days for their patients with OUD, using different models suggested from HAP. The process is ongoing, and while HSX currently has a model in place, there is still additional strategy occurring to discover the most sustainable model for follow-up care within the region. HSX has an effective process in place for follow up care for a large majority of their patients, but the patients with OUD for which the grant is giving money to hospitals, are Medicaid patients. These patients may or may not have any family members to help them, may not have a regular primary care physician, and may struggle to get to any scheduled follow up because of transportation issues. These patients need follow up care more acutely, but are not receiving it because of their extenuating circumstances, which can cause higher rates of opioid relapses. HSX has taken this into account when considering the best way to help solve this problem. HSX has strategies under consideration to best provide this follow up treatment. These strategies include partnering with certain collaborative sites within the surrounding areas of the hospitals, which are easier for OUD patients to reach, increasing behavioral and addiction medicine specialists within

the hospitals to help care for these patients upon their discharge, and contracting with insurance companies in the Medicaid sector whose members are coming to the EDs. The insurance companies want their patients to be healthier, thus reducing their costs. The insurance companies thus, typically, have an identifier of their higher risk patients, and their own initiatives to help those patients receive care. In this case, ensuring that their members, who are patients with OUD, stay out of the hospital with effective treatment the first time, before they leave the hospital. These measures are meant to help patients follow up with treatment within a week of their discharge. All of these plans have limitations that require further consideration before moving forward into implementation.

There are certain guidelines that providers must follow when prescribing MAT treatment because the drugs aforementioned can be almost, if not just as dangerous, as opiates themselves. The United States Government, under the Certification of Opioid Treatment programs, 42 Code of Federal Regulations (CFR) 8; has created regulations such that only SAMHSA-certified Opioid Treatment Programs (OTPs) have the ability to prescribe methadone (Young, 2015). Buprenorphine can only be prescribed by providers, including physicians, nurse practitioners (NPs), and physician assistants (PAs), who are waiver certified (SAMHSA, n.d.). The requirements to become waiver certified differ by the type of provider, and are capped after a certain number of prescriptions have been prescribed. Without a waiver, a physician in the Emergency Department can only dispense three days of buprenorphine (one per day, up to three days for the same patient), and require patients to come back each day. A few organizations offer free training needed to become a waived provider. Provider requirements for obtaining a waiver are as follows: a physician must complete eight hours of continuing education, while NPs and PAs must complete 24 hours of training to become waived. The first year a provider is certified to prescribe buprenorphine they may only prescribe a maximum of 30. After holding a waiver for a full year,

the provider can apply to prescribe more. If approved, they may move from 30 to 100 prescriptions for the year. After a year of holding a maximum limit of 100 prescriptions, the provider can again apply for an increase in prescriptions they are allowed to prescribe, moving from 100 to 275. Providers are capped at 275 prescriptions for the year, no matter how long they have been waived (PCSS, n.d.).

An additional challenge HSX faced in Year 1 along with the other hospitals participating in the grant, was trying to submit electronic continuity of care documents (CCDs) by the original date specified by DHS. HSX was granted an extension while they worked on partnering with a Health Information Exchange (HIE) to send the necessary CCDs to the state. It was noted that many of the hospitals struggled with the same issues with the CCDs, and joining a HIE. Additionally, they needed to find the best way to provide follow up care within a week of discharge from the ED. HAP took this into account and has been helping Pennsylvania hospitals keep on track, by creating the Opioid Learning Action Network (LAN), to help reduce the costs for learning and implementation of resources. LAN hosts webinars periodically to encourage sharing best methods for implementation throughout this process. These are chances for hospitals to listen in and learn how to most effectively implement the steps of the quality incentive program [Appendix E].

6.0 Principle to Practice

The author was assigned the task of project manager soon after on boarding as administrative resident for Hospital System X, reporting to the Vice President of Quality and Safety. At this time, HSX had already applied for the grant and the hospitals were placed into tiers based on previous calendar year emergency department data. She observed meetings at first, then her role evolved into the opportunity to help facilitate meetings, deciding when to pull in content experts or when to schedule branched meetings with certain individuals. These could, and did, include the IT and data team, an additional medicine team, and leaders at the respective hospital EDs. The team provided their thoughts and options on where and how the scope of the project was progressing. It has been the resident's job to help pull in the right resources and the right people to keep the project moving forward. There was the opportunity to reach out to community centers surrounding the hospitals for help in getting patients to follow up treatment, as well as reaching out to Medicaid health plans to help set up a system for them to connect in real time with their members, so they can assist with patient follow up care. The most unbelievable part of the entire project was seeing how dedicated and passionate all the individuals, from the internal team to any external members with whom she spoke, were about helping members within the broader community with OUD receive treatment which could help them on the road to recovery. Having this enthusiastic response was one less barrier to face, as everyone encountered was eager to help in any way they could to help move the project forward.

7.0 Conclusion

Participating in the Department of Human Services quality incentive program has allowed Hospital System X the opportunity to implement a design to help treat patients with opioid use disorder in a more effective manner to help prevent relapses, in a relatively risk free environment. By participating in this program, HSX was paid for implementing best practices. The hope is that by designing a system that can effectively help patients with OUD who have Medicaid, it will stand beyond the conclusion of the program and be implemented for all patients who are treated in the ED with OUD, whether they are insured or uninsured. This is an exciting step in the right direction, and if successful in western Pennsylvania, can hopefully be scaled nationwide.

Appendix A History of Opioids

What are Opioids?

Opium comes from the poppy plant, which is native to Turkey. The plant's flower contains seeds, that when consumed release morphine and other alkaloids that can produce pain relieving affects (Feige & Miron, 2008). Opium is a natural opiate, whereas opioids are at least partially synthetic, although, these terms are used interchangeably today. The synthetic nature of opioids means that they can be more potent and therefore more addictive and dangerous to use. Common opiates include opium, morphine, and codeine, all of which come directly from the poppy plant. Common opioids that are produced include oxycontin, heroin, hydrocodone, and fentanyl (Opiate Detox Centers, 2017).

Opiates have a long history of causing addiction. Becoming addicted to opiates may be a relatively new problem for the United States, but China has dealt with more than its own share of opiate addiction over a very long period of time, The eventually were able to solve their own opioid crisis. Although China's opium crisis was different in nature than the opioid crisis of today in the United States, both cultures have experienced the negative effects opiates can have on a culture and society. Though the nature of the crisis varies, hope for the United States is out there, though it will take a strong government influence to help solve the crisis.

History of Opioids

While the United States struggles with an opioid crisis that is killing more than 130 citizens every day, China encountered a similar crisis a hundred years earlier (NIH, 2019). Opium was introduced into China in the 6th or 7th century by Turk and Arab traders. It was utilized in a controlled manner for more than a century to strictly relieve pain and tension. Controlled use

exploded into radical usage in the 17th century when tobacco sales from North America escalated significantly. Opium was no longer used to relieve pain, but now, like tobacco, it was smoked. This increased the number of Chinese who used opium. Because of opium's addictive quality, soon many Chinese were addicted to smoking opium. It became a serious enough problem that the Qing dynasty first tried to prohibit the sale and smoking of the drug, with little success. Next to be outlawed was the trade and importation of opium into China. Unfortunately, the British East India Company had capitalized on the opium cultivation in India and realized they could right their trade imbalance with China by selling opium to an addicted China (Pletcher, 2015). China's ban on opium, and Britain's unwillingness to stop selling opium to China, led to the Opium Wars. The first war was between Britain and China lasting from 1839 until 1842, where the Chinese tried to prevent Britain from importing opium. The Chinese were unsuccessful. They were forced to surrender and sign the Treaty of Nanjing, which gave Britain most-favored-nation status. The second Opium War was between Britain and France against China from 1856 until 1860. Again China lost and was forced to legalize opium trade (Pletcher, 2019). Eventually in 1907 China was finally able to sign a treaty with India called the Ten Years' Agreement that would allow for the reduction in importation of opiates to China with the cessation of opium importation by 1917. It wasn't until the Communists came to power in 1949 that China was able to eradicate opium smoking (Pletcher, 2015).

Opioid Treatment

Buprenorphine is a partial opioid agonist, meaning it binds to the same mu-receptor in the nervous system that opioids bind. Because it binds to the same cell receptor sites, it helps relieve withdrawal symptoms, as it stimulates similar psychological activity. At a maintenance dosage, it does not induce euphoria like opioids. By binding to the same cell mu receptors as

opioids, it prevents the body from binding (and absorbing) the effects of all the opioids a person has taken, so the effects of the opioids are diminished. Methadone is a complete opioid agonist, and thus will bind with a high affinity to the same mu-receptors as opioids. Methadone, like buprenorphine, helps to lessen withdrawal symptoms without creating the same euphoria as the illicit self-administered opioids (Pike & Usa, 2009). Naloxone, unlike the other two drugs, is a complete antagonist, and binds at an even higher affinity to the mu-receptors, out competing opioids. Due to its high affinity, it can cause serious withdrawal effects. It should not be taken until a patient has been opioid free for 7-10 days, unless a patient has overdosed on opioids, then Naloxone should be administered, as it will help reverse the binding of opioids to the receptors (SAMHSA, n.d.).

Appendix B Hospital Quality Improvement Program

Follow-up treatment after ED visit for Opioid Use Disorder (OUD)

**Final
January 17, 2019**

A new hospital quality incentive program will be established based on a modified HEDIS® specification of follow up within 7 days for opioid treatment after a visit to the emergency department (ED) for opioid use disorder (OUD). Trended performance for this metric would be established for each ED using Calendar Year (CY) 2016 and CY 2017 claims data.

The event denominator will be any HealthChoices member seen in the ED for OUD.

The event numerator will be anyone in the denominator seen for OUD treatment within 7 days of discharge from the ED.

Each ED will have the opportunity to earn benchmark and incremental improvement incentives using CY 2018 as a base year and CY 2019 as the first year to earn a performance incentive. The payout structure will be similar to our preventable admissions QIP. Incentive payments will be made in 2020. The amount allocated for benchmark and incremental improvement payments will be \$35 million.

This activity will align with other OUD warm hand off initiatives and OMAP's focus on pregnant women with OUD. The first performance incentives (benchmark and incremental improvement) would be paid in October 2020.

Also during 2019, health systems will have the opportunity to earn "process" incentives by implementing defined clinical pathways. These pathways will help the health systems get more individuals with OUD into treatment and improve the 7 day follow up performance in 2019. Health systems may implement all or any of the following four clinical pathways:

1. ED initiation of buprenorphine with warm hand off to the community;
2. Direct warm hand off to the community for MAT or abstinence based treatment;
3. Specialized protocol to address pregnant women with OUD; and
4. Direct inpatient admission pathway for methadone or observation for buprenorphine induction.

The emergency departments of health systems will be awarded a base payment of \$25,000 for the initial pathway implemented and additional payments for the 2nd, 3rd, and 4th pathways implemented as follows: 2nd Pathway - \$37,000, 3rd Pathway - \$56,000, 4th Pathway - \$75,000. This would allow a hospital that implements all 4 pathways to receive a payment totaling \$193,000. Any remaining funds available after the pathway payments are completed will be distributed to eligible hospitals based on the proportion of each eligible hospital's CY2016 OUD related ED visits divided by the total CY2016 OUD related ED visits for all eligible hospitals. A hospital is eligible to receive a remaining funds payment by attesting to and implemented at least one pathway.

The amount allocated for clinical pathway payments will be \$30 million. Payment will be made by July 31, 2019.

Pathways Requirements

1. Each of the pathways will need to be clearly defined in writing by 9/28/18 and verified as operational with a minimum number of HealthChoices recipients by 1/17/19. The minimum number of HealthChoices recipients is determined by the volume of OUD related ED visits that occurred in CY2016:
 - a. Tier 1: Low-volume EDs – Hospitals that had less than 20 OUD ED visits must have a minimum of 1 HealthChoices recipients.
 - b. Tier 2: Standard EDs – Hospitals that had between 20 and 200 OUD ED visits must have a minimum of 10 HealthChoices recipients.
 - c. Tier 3: High Volume EDs – Hospitals that had more than 200 OUD ED visits must have a minimum of 20 HealthChoices recipients.
2. These care management teams will be focused on warm hand-offs from the ED to inpatient admission, observation status, external drug and alcohol providers for all ASAM levels of care, and local Centers of Excellence or PACMAT programs.
 - a. The care management team is expected to have on-call care management 24-hour coverage.
 - b. Health systems are expected to train existing ED care management personnel and ED providers on appropriate OUD guidelines of care, stigma prevention, SBIRT, and MAT waiver prescriber training (physicians, CRNPs, PAs if initiating buprenorphine pathway #1).
3. Health systems will attest in writing to these requirements no later than 11/30/18.
4. Health systems be actively working towards submitting electronic continuity of care documents (CCDs) to the Department for Medicaid recipients seen in the ED with a diagnosis of OUD by 7/1/2019.

Historic Data Analysis

Below is an example of trended ED data from 2014 to 2017 for individuals with a diagnosis of OUD either within the top 3 or top 9 diagnosis positions on the HealthChoices encounters. The table also lists 7 day or 30-day follow-up rates for at least one OUD treatment.

	2014			2015			2016			2017*		
	Recipient/Visit	Received a 7 or 30 Day Follow-up	Rate	Recipient/Visit	Received a 7 or 30 Day Follow-up	Rate	Recipient/Visit	Received a 7 or 30 Day Follow-up	Rate	Recipient/Visit	Received a 7 or 30 Day Follow-up	Rate
9Dx_30d	12,662	6,649	52.5%	20,838	9,880	47.4%	33,531	14,774	44.1%	33,111	14,641	44.2%
3Dx_30d	7,542	4,145	55.0%	13,500	6,644	49.2%	24,528	10,971	44.7%	24,354	10,813	44.4%
9Dx_7d	12,662	4,525	35.7%	20,838	6,483	31.1%	33,531	9,367	27.9%	33,111	9,290	28.1%
3Dx_7d	7,542	2,878	38.2%	13,500	4,344	32.2%	24,528	6,901	28.1%	24,354	6,874	28.2%

Below is a summary of the results of CY 2015 to 2016 modeling for benchmark and incremental improvement using the 9 diagnoses and 7day follow-up data.

Hospitals/ED no payment			22%
Hospitals/ED both			22%
Hospitals/ED bench only			28%
Hospitals/ED incremental only			28%
Hospitals/ED <20 visits 2016 Or 17			15%
median =>25.0%			

Appendix C Hospital Quality Improvement Program

Opioid Use Disorder Emergency Department Initiative Performance Measure

The Opioid Use Disorder (OUD) for Emergency Department (ED) follow-up reports are generated using a Department of Human Services (DHS) modification on the HEDIS[®] measure “Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA)”.

While the HEDIS[®] measure is looking at all types of alcohol or other drug (AOD) abuse, the DHS modification limits the data included to only Opioid/Opioid Poisoning diagnoses. Also, the HEDIS[®] measure only evaluates the primary (or the first) diagnosis on the claim/encounter. The DHS modification includes diagnoses in up to the ninth position.

Each version applies a continuous enrollment limitation (from the date of the ED visit through 30 days after the ED visit - 31 days total) to the eligible denominator population. The DHS modification is limited to Medical Assistance recipients enrolled in a Medicaid MCO participating in the Physical Health HealthChoices program during that eligibility period.

The HEDIS[®] measure is very prescriptive and limited as to what is included as a follow-up and includes follow ups in both 7 and 30 days. The DHS modification includes all ED visits (with or without admittance) that received treatment, as identified by DHS, within 7 days of their OUD related ED visit. DHS will also include admissions that meet the modified inpatient criteria are included in the numerator. DHS will not consider another ED visit as an acceptable follow-up within 7 days.

This measure is being used to evaluate each ED visited by the recipients separately. If there were multiple ED visits to the same ED within 7 days and all visits include OUD related diagnosis in up to the ninth position, then DHS considers the first date of service to be “anchor date” or date to begin the evaluation. When a recipient has OUD related ED visits to multiple EDs within the 7 day follow-up period, DHS will evaluate each ED separately.

Updated April 30, 2019

Appendix D Opioid Use Disorder Team Charter

Team Lead	██████████	Title	VP of Quality & Safety
Team Leadership		Title	ED Medical Director and Institute Chair
Team Sponsor	██████████	Title	System CMO/CQO
Start Date	August, 2018	Expected Complete Date	7 months (March 31, 2019)
Project Name	Follow Up Treatment after ED visit for Opioid Use Disorder	PI Resource	Process Improvement/Process Engineering

Opioid Use Disorder Team Charter

Background [pilot results]

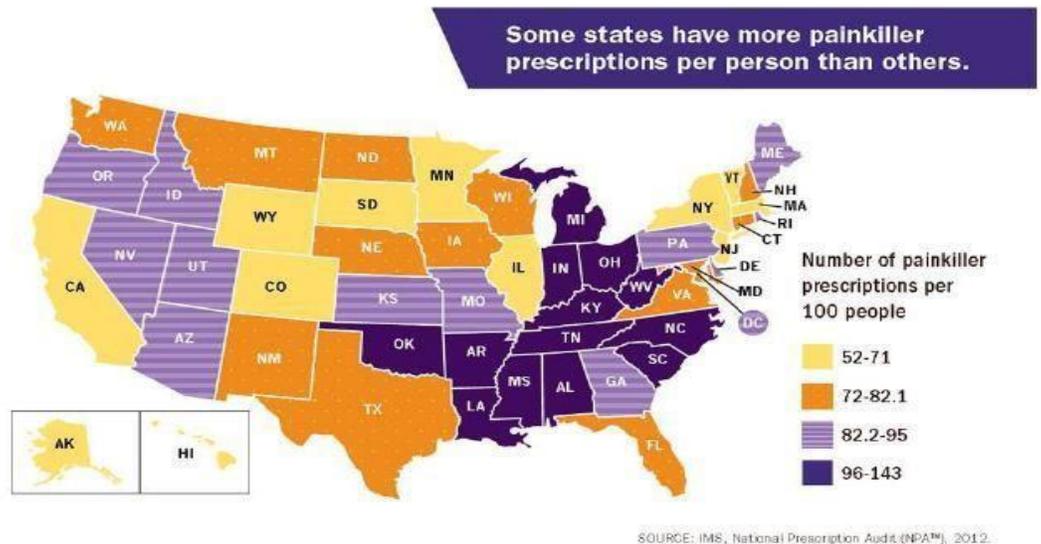
In 2013, 16,235 Americans died from prescription opioid misuse — four times more than in the entire previous decade and greater than the number of deaths that year from heroin, cocaine, and benzodiazepines combined. From 2000 to 2009, the number of opioid prescriptions increased by 68 percent, reaching 202 million prescriptions. Opioids — both prescription painkillers and heroin — are the primary drug associated with drug overdoses; in 2014, opioids were involved in 61 percent of all drug overdose deaths. From 2013 to 2014, there was a 9 percent increase in deaths attributed to overdose of commonly prescribed opioid pain relievers.

In 2010, hydrocodone/ acetaminophen was the most commonly prescribed drug in the United States, with 131.2 million prescriptions; the US uses 99 percent of the world's supply.

One of the most significant drivers of the opioid crisis is the lack of a system-level approach across communities.

The picture below shows the number of painkiller prescriptions by state.

Figure 3. Geographic Variation of Opioid Use in the US



Reference: Martin L, Laderman M, Hyatt J, Krueger J. *Addressing the Opioid Crisis in the United States*. IHI Innovation Report. Cambridge, Massachusetts: Institute for Healthcare Improvement; April 2016. (Available at ihi.org)

Opioid Use Disorder Team Charter

In July, 2017 the President’s Commission on Combating Drug Addiction and the Opioid Crisis issued a draft interim report to the President which included several recommendations. The recommendations were to inform state activity related to opioids.

Recently, DHS announced (through HAP) a new hospital quality incentive program that would allow hospitals the opportunity to earn incentive payments for implementing specific clinical pathways that individuals can use following treatment in an Emergency Department (ED) setting for opioid use disorder (OUD). The goal of the pathways is to avoid the need for repeat treatment in an ED setting by helping individuals with OUD receive other treatment within 7-days of receiving care in an ED.

The new measures contain two components:

1. **Component #1—Process Incentive:** Implementation of defined clinical pathways (Year 1)
2. **Component #2—“Outcome” Incentive:** Modified Healthcare Effectiveness Data Information Set specification of follow-up within seven days for opioid treatment after a visit to the emergency department for OUD (Year 2)

Component #1—Process Incentive: Health systems may implement all or any of the following four clinical pathways:

3. ED initiation of buprenorphine with warm hand off to the community;
4. Direct warm hand off to the community for MAT or abstinence based treatment;
5. Specialized protocol to address pregnant women with OUD; and
6. Direct inpatient admission pathway for methadone or observation for buprenorphine induction.

Hospitals must also have:

7. Care management teams focused on warm hand-offs from the ED to inpatient admission, observation status, external drug and alcohol providers for all American Society of Addiction Measures (ASAM) levels of care, and local Centers of Excellence or Pennsylvania Coordinated Medication-Assisted Treatment (PACMAT) programs are in place.
8. On-call care management available 24-hours a day.
 - a. ED care management personnel and ED providers have been trained on the clinical pathways.
9. Attest to having begun to work towards submitting electronic continuity of care documents (Admission, Discharge, Transfer forms) to DHS for Medicaid recipients seen in the ED with a diagnosis of OUD by 7/1/2019.

Below is a historical data by HSX facility for all included diagnoses and by Health Choice recipient.

Table 1: HSX Opioid Use Data 2016-2018

		All Diagnosis			
		2016	2017	2018	
	All Patients	718	675	587	Tier 3
X4	Health Choice	287	260	118	
	All Patients	221	245	124	Tier 2
X1	Health Choice	93	103	39	
	All Patients	77	94	51	Tier 2
X2	Health Choice	24	32	7	
X5	All Patients	346	370	223	Tier 3

Opioid Use Disorder Team Charter

		Health Choice	143	132	73	Tier 3
		All Patients	253	257	203	
	X6	Health Choice	8	33	59	

	X7	All Patients	377	454	406	Tier 3
		Health Choice	30	35	79	
	X3	All Patients	220	184	125	Tier 2
		Health Choice	71	65	30	

Strategic Objective (Core Behavior) advanced by this PI opportunity	<ul style="list-style-type: none"> Customers First Purposeful Execution Trust Working Together <p>Connect to Office Priorities (from Office of the CMO priorities).</p>
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<p>FOCUS Find and define the improvement opportunity.</p> <p>1. What are you trying to accomplish (AIM statement)?</p> <p>2. How will you know that an improvement occurred (Measure(s))?</p> <p>3. What changes (interventions) will be made to result in improvements?</p>	<p>AIM for Component 1: Develop/Define all four opioid use clinical pathways for each HSX facility by November 30, 2018.</p> <p>AIM for Component 2: Achieve 90% compliance or above with 7 and 30 day follow up for Opioid patients visiting ED from January 2019-December 2019.</p> <p>Milestones #1: Before November 30th, 2018-- Stage 1: Defining and Developing; Stage 2: Attestation</p> <p>Milestone #2: Before January 17th, 2019-- Stage 3: Operational Implementation</p> <p>Milestone #3: March 31st, 2019-- Stage 4: Reviewing and Sustaining</p> <p>Outstanding Topics to Discuss:</p> <ol style="list-style-type: none"> 1. Education Needs -What? -Who? 2. EPIC Needs 3. Data Needs 4. Submission of ADT feeds
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Opioid Use Disorder Team Charter

<p>Organize Organize a team who understands the process (List team members and their roles).</p>	<p>Identify the Team Members needed for each clinical pathway: RACI?</p> <ul style="list-style-type: none"> Local quality expert Data expert Regulatory expert Strategy expert Quality & Safety expert PI/Process Engineering expert Case Management expert Data expert Nursing/Education expert Local quality expert Clinical/Content expert EPIC expert Coding expert
<p>Clarify Clarify current knowledge of the process.</p>	<p>Identify the current state of the pathways per each facility (see clinical pathways in invite)</p>
<p>Understand Understand the causes of the process variation.</p>	<p>Identify where there are gaps (based on future state process map)</p>
<p>Specific Select a specific process to improve and test.</p>	<p>PDSA after selecting an improvement.</p> <p>Delineate between process improvement and process creation.</p>

Appendix E Opioid Learning Action Network

Hospital Association of Pennsylvania's (HAP) Opioid Learning Action Network (LAN)

Has Your Hospital Joined HAP's Opioid Learning Action Network (LAN)?

What is it?
A two-year learning collaborative designed to increase the number of patients under multimodal-based treatment for opioid use disorders (OUD) and prevent overdose deaths. Open to all Pennsylvania hospitals, for and for participation fully funded by the Learning Collaborative and administrative through your hospitals.

8 reasons to join - including \$5 million in OUD related quality incentives

1. To get new people involved and grow our numbers
2. To improve patient experience satisfaction
3. To share effective strategies, ideas, tips, and information
4. To reduce mortality and implementation costs by using the LAN's best shared practices
5. To gain efficiency in understanding and applying available regional resources (single sharing information, peer-to-peer, treatment, recovery, etc.)
6. To help your hospital gain its share of OUD related quality incentives available through the new quality measurement of Patient Hospital Quality Incentive Program
7. To provide continuing education for physicians, nurses, and other staff members
8. To participate and gain recognition in the national Opioid Learning Collaborative

How can we help you join?
We will complete on-site or virtual consultations by May 15, 2019. This includes all during August. We'll provide ongoing support and guidance as you join. Plan to participate for two years.

HAP
Hospital Association of Pennsylvania
1000 North 10th Street, Suite 1000, Harrisburg, PA 17102

<https://haponlinecontent.azureedge.net/resourcelibrary/HAP-Opioid-LAN-May-2019.pdf>

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