

WOULD YOU PRESCRIBE YOUR PATIENT HEROIN?

PLYMOUTH COUNTY'S RESPONSE TO THE OPIOID CRISIS



PLYMOUTH COUNTY DRUG ABUSE TASKFORCE

TABLE OF CONTENTS

- Section 1: Introduction
Dan Muse, MD
Signature Healthcare - Brockton Hospital
- Section 2: Understanding the Physiology of Addiction and Social Consequences
Terri Harpold, MD
Steward Healthcare - Good Samaritan Hospital
- Section 3: Prescribing Practices and Recommendations
Dan Muse, MD
Signature Healthcare - Brockton Hospital
- Section 4: Pregnancy, Newborn Babies and Drug Endangered Children
Hillary Dubois, Gabrielle Peruccio & Amanda Sandoval
High Point Treatment Center, Prevention Services
- Section 5: Facility Access
Shannon Elliott, MSW, LICSW
Highpoint Treatment Center
- Section 6: Data Collection
Lisa Harrington, RN
Signature Healthcare - Brockton Hospital
- Section 7: Public Awareness Campaigns
Patrick Nevins—Plymouth County District Attorney’s Office
Karen Barry—Plymouth County Sheriff’s Department
Beth Stone—Plymouth County District Attorney’s Office
- Section 8: Emergency Department Outreach
Sarah Cloud, MSW, LICSW
Beth Israel Deaconess Hospital-Plymouth
- Section 9: Hospital and Medical Group Outreach
Dan Muse, MD
Signature Healthcare - Brockton Hospital

Section 1: Introduction
Dan Muse, MD
Signature Healthcare - Brockton Hospital

“Our kids are dying,” pled a local mother in 2007 to *The Brockton Enterprise* during their coverage of the opioid epidemic.¹ A decade later, the City of Brockton, Massachusetts now averages 3 overdoses a day and even witnessed an alarming 40 overdoses over the course of a two day stretch in January 2016.² Although the opioid epidemic is overwhelming Brockton, data has proven that residents from the surrounding towns are not immune.

In 2016, Signature Healthcare-Brockton released emergency room data showing 44% of the people overdosing in Brockton were not actually Brockton residents, but residents from the neighboring towns in the county. Plymouth County law enforcement began realizing the gap; small town police departments in the county were not aware of the extent of the problem within their own towns because their residents were overdosing elsewhere. At the time there was no cohesive communication network within either the law enforcement or healthcare system. As a result, the demand was high for a more effective multijurisdictional approach. Plymouth County, Massachusetts consists of a diverse array of 27 communities, ranging from small New England towns to urban commercial areas. However, despite the demographic diversity, opioids are affecting each community.

In 2012, Massachusetts witnessed the beginning of a major uptick in opioid overdoses and fatalities. From 2000-2011, Massachusetts averaged 548 opioid-related deaths a year.³ However, starting in 2012 the opioid-related fatalities increased to 698 (2012), 918 (2013), 1,379 (2014), 1,751

¹ Maureen Boyle and Steve Damish, “Wasted Youth: What’s Killing Our Children,” *The Brockton Enterprise* (Brockton, MA), Mar. 25-28, 2007.

² Jorge Quiroga, “Brockton Reports 40 Heroin Overdoses In Two Days” last modified January 15, 2016. <http://www.wcvb.com/article/brockton-reports-40-heroin-overdoses-in-two-days/8081081>

³ “Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents,” *Massachusetts Department of Public Health*, last modified February 2017, <http://www.mass.gov/eohhs/docs/dph/stop-addiction/current-statistics/data-brief-overdose-deaths-february-2017.pdf>.

(2015), and 1,979 (2016).⁴ Moreover, in January 2017, the US Department of Health and Human Services published a study about opioid-related inpatient stays and emergency department visits from 2009-2014. Of the 30 states submitting data for opioid-related emergency department visits, Massachusetts had the highest rate, 450.2 visits per 100,000 population, compared to the national rate of 177.7 visits.⁵ Of the 44 states submitting data for opioid-related inpatient stays, Massachusetts had the second highest rate, 393.7 visits per 100,000 population, compared to the national rate of 224.6 stays.⁶

Similarly, in Plymouth County, the spike began in 2013. The Massachusetts State Police Detectives assigned to the Plymouth County District Attorney's Office investigate all unattended deaths in the county, which include all sudden and/or suspicious deaths such as fatal overdoses. They began tracking overdose fatalities in 2008. From 2008-2012, the county averaged 32 unattended overdose fatalities a year. The overdose fatalities increased to 47 (2013), 75 (2014), 142 (2015), and 130 (2016). It is worth noting that the actual number of overdose fatalities is actually much higher as these numbers do not include those who died in a medical setting. Signature Healthcare-Brockton, South Shore Hospital, and Beth Israel Deaconess-Plymouth, treated 1,575 non-fatal and fatal overdoses during 2016.⁷

In the latest data sets provided by the MA Department of Public Health in January 2017, Plymouth County ranks in the highest category for opioid overdose death rates among all Massachusetts counties, 19.6 to 24.0 deaths per 100,000 people.⁸ With 351 municipalities in

⁴ Id.

⁵ Audrey J. Weiss, Ph.D., Anne Elixhauser, Ph.D., Marguerite L. Barrett, M.S., Claudia A. Steiner, M.D., M.P.H., Molly K. Bailey, and Lauren O'Malley, "Opioid-Related Inpatient Stays and Emergency Department Visits by State, 2009–2014" last modified January 2017. <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.pdf>

⁶ Id.

⁷ Lisa Harrington, email message to author, February 2017.; Andrea Holleran, email message to author, March 2017.; Audrey Sturtevant, email message to author, March 2017.

⁸ "Number of Unintentional Opioid-Related Overdose Deaths by County, MA Residents: 2000-2015," *Massachusetts Department of Public Health*, last modified February 2017, <http://www.mass.gov/eohhs/docs/dph/stop-addiction/current-statistics/overdose-deaths-by-county-including-map-february-2017.pdf>.

Massachusetts, 6 Plymouth County cities/towns rank in the top 10% of all Massachusetts municipalities with the highest number of opioid deaths per capita.⁹

In May, 2015, Plymouth County District Attorney Timothy Cruz, and Plymouth County Sheriff Joseph McDonald invited members from different branches of the community to come together and try to help create solutions to the opioid epidemic which has infiltrated every community. The Task Force's strategy to address the opioid epidemic is to (1) enhance the capacity of the county to address opioid abuse, especially through comprehensive data collection; (2) reduce the opioid demand through education and prevention; (3) reduce the opioid supply through enforcement of traffickers; and (4) to augment and increase access to existing treatment and recovery services. The Task Force serves as the clearinghouse for coordinating law enforcement efforts, community coalition technical assistance, education and prevention, and data dissemination.

The Medical Subcommittee opted as their objective to produce a position paper that would provide sufficient background information and formulate recommendations as to how the healthcare community could do their part in reversing this epidemic.

The Medical Subcommittee is compiled of several talented individuals who have varying specialties and backgrounds within the healthcare system; their common denominator is working in the area of substance abuse. Several members have also lost loved ones to this scourge, making their devotion to this cause even more personal.

When we began, I asked each member to weigh heavily on their personal experiences within the area of substance abuse and to then make the recommendations which they truly believe are needed to reverse this epidemic. In that vein, I also stated that no recommendation would be removed or changed without their expressed permission. What has been produced is a compellation of their ideas.

⁹ "Mass. Towns Hardest Hit with Overdose Deaths," *WCVB ABC*, last modified January 21, 2016, <http://www.wcvb.com/article/mass-towns-hardest-hit-with-overdose-deaths/8122758>.

And so, to some degree, this is a wish list. Rather than serving as a decree as to what everyone should do or presenting a simply diluted consensus, this paper was written with the intent of educating Plymouth County Healthcare professionals. The information is meant to make us all feel uncomfortable with the present epidemic and highlight the critical role healthcare has to play.

Most importantly, the purpose of this paper is to stir up debate amongst healthcare professionals, hopefully catalyzing significant change in how we practice and treat our patients. It is time for resurgence in the medical community. We not only have a professional obligation, but, more importantly, a moral obligation to lead the charge against this epidemic.

Section 2: Understanding the Physiology of Addiction and Social Consequences Terri Harpold, MD
Steward Healthcare - Good Samaritan Hospital

The Neurobiology of Addiction

Over the past several decades scientific research has shown that addiction is a disease of the brain. Studies of brain structure and function have identified many of the complex biological processes which contribute to the development of addiction disorders.

This summary draws from reports in scientific journals and from research published on the National Institute of Drug Abuse (NIDA) website www.drugabuse.gov and was compiled in October 2016.

Definition

Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use despite harmful consequences.¹⁰

The Brain, Stimulus, and the Reward Pathway

The brain is the most complex organ in the human body. It governs bodily functions and systems, from eating and sleeping to thinking and behavior. The brain manages these systems by gathering, analyzing, and communicating information via nerve cells through the aid of chemical transmitters to and from other parts of the brain and various parts of the body. The reward system is the key system in the brain responsible for the development of addiction.

¹⁰ “Diagnostic and Statistical Manual of Mental Disorders,” DSM-5. Washington, DC: American Psychiatric Association, 2013.

Reward is a process by which a stimulus, such as a pleasurable feeling, creates a response in the brain so that the behavior is repeated. Examples of natural rewards are food, water, sex, and nurturing.¹¹ Each of these behaviors is required for the survival of the species.

Scientists discovered the reward pathway in the brain as a result of experimentation predominately on rats. By stimulating certain areas of the brain, there appears to be a pleasure response. This is illustrated in a relationship referred to as positive reinforcement – when rats were given the ability to press a lever in reward for the stimulus; the lever was then pressed repeatedly.

Using such research models, scientists were able to identify that there are specific regions of the brain involved in the reward pathway. Three main areas of the brain have been shown to be involved in the reward pathway: the nucleus accumbens, the prefrontal cortex and the ventral tegmental area.¹² These areas communicate with each other in the processing of a pleasurable experience.

A “messenger” is needed to send the signal. Dopamine is thought to be the main chemical in the brain communicating to the reward areas that a pleasurable experience is occurring and is also thought to create memories of the experience.¹³ These memories influence an individual to seek to repeat the experience.

The reward stimulus can be a natural one, as noted above, but can also be an artificial one, such as heroin or cocaine. Studies have confirmed that these substances either directly or indirectly increase the activity of dopamine in the brain in the areas of the reward pathway.¹⁴

¹¹ “The Neurobiology of Drug Addiction,” *NIDA*, last modified January 2007, <https://www.drugabuse.gov/publications/teaching-packets/neurobiology-drug-addiction>.

¹² Y Zhu, CFR Wienecke, et al., “A Thalamic Input to the Nucleus Accumbens Mediates Opiate Dependence,” *Nature*, (2016): 219-222.; S Bashir and W-K Yoo, “Neuromodulation for Addiction by Transcranial Direct Current Stimulation: Opportunities and Challenges,” *Ann Neurosci*, 23(4) (2016): 241-245.

¹³ “Understanding Drug Abuse and Addiction: What Science Says,” *NIDA*, last modified February 2016, <https://www.drugabuse.gov/understanding-drug-abuse-addiction-what-science-says>.

¹⁴ R Keiflin and PH Janak, “Dopamine Prediction Errors in Reward Learning and Addiction: From Theory to Neural Circuitry,” *Neuron*, 88(22) (2015): 247-263.

Heroin

Opiates or Opioids are a class of chemical substances with a specific chemical structure which bind to specific receptors in the body and the brain. The nerves then release chemicals, primarily dopamine, which in turn activates the reward pathway. Opiates can be found in the natural environment and are also present naturally in the brain. They are also manufactured from natural sources or created entirely synthetically. Heroin is synthesized from morphine, a naturally occurring opiate substance extracted from the seedpod of the Asian opium poppy plant.¹⁵ Other examples of opiates include prescription pain medications and “endorphins” experienced by long distance athletes.

Opioids also bind to receptors in other parts of the brain and body, including the spinal cord, the gastrointestinal tract, and the area of the brain responsible for maintaining breathing. Common effects of opiates include analgesia (decrease in the perception of pain), pleasure, euphoria, sleepiness, and mental confusion.¹⁶

By acting directly on the areas of the brain responsible for breathing, opiates can cause respiratory depression and death.¹⁷ Via receptors in the gastrointestinal tract, opiates can also cause nausea and constipation.¹⁸

Research has shown that the amount of drug (opiate) and the method of administration of the drug (snorting, swallowing, smoking, injecting) can intensify its effects. Studies have shown that the rate of how quickly the drug reaches the brain is a key factor in determining the intensity of the experience. Injecting the substance directly into the bloodstream is the fastest way the drug can reach the brain and in contrast, swallowing the opiate is the slowest. Although swallowing a pain

¹⁵ “Drug Facts: Heroin,” *NIDA*, last modified July 2017, <https://www.drugabuse.gov/publications/drugfacts/heroin>.

¹⁶ “How Do Opioids Affect the Brain and Body?” *NIDA*, last modified August 2016, <https://www.drugabuse.gov/publications/research-reports/prescription-drugs/opioids/how-do-opioids-affect-brain-body>.

¹⁷ CJ Jolley, J Bell, et al, “Understanding Heroin Overdose: A Study of the Acute Respiratory Depressant Effects of Injected Pharmaceutical Heroin,” *Public Library of Science One*, 10(10) (2015): e0140995.

¹⁸ “How Do Opioids Affect the Brain and Body?” *NIDA*, last modified August 2016, <https://www.drugabuse.gov/publications/research-reports/prescription-drugs/opioids/how-do-opioids-affect-brain-body>.

medication will have an effect on the reward pathway in the brain, the substance must first be digested, metabolized, and then enter the brain; whereas, when opiates bind to brain receptors quickly and in large amounts, dopamine is released more quickly, in larger amounts, and the reward is stronger or more intense.¹⁹

The behavioral response to activation of the reward pathway is to seek more stimuli (the thing causing the activation of the pathway). If the reward is stronger or more potent, the stimulus seeking behavior (addiction) can likewise become more intense. Intravenous heroin causes an intense activation of the reward system and thus carries a high risk of addiction.

Repeated exposure to a drug, and its effects, is also thought to increase the risk of addiction. Tolerance is a phenomenon that can develop even when individuals follow instructions for use of their opiate pain medication, as more of the drug is needed to achieve the same intensity of effect.²⁰ While tolerance is one consequence of repeated exposure, craving is a complex phenomenon which is also thought to contribute to the development of addiction. Newer studies are identifying the brain areas and pathways involved in craving.

Tolerance can progress to a condition called dependence, but dependence is not the same as addiction. A number of factors are involved in the conversion of dependence to addiction with the main difference being that addiction by definition must include drug-seeking behaviors despite negative consequences.

Withdrawal can also contribute to addiction. This bodily response occurs when the stimulus is no longer present and the dopamine is not present in the quantity previously responsible for transmitting reward. Other, less attractive, biological effects of the drug become more prominent during withdrawal, typically the negative or unpleasant effects such as nausea or vomiting.

¹⁹ Id.

²⁰ Id.

Heroin is an addictive drug, but not all users become addicted. A user's environment, personality, and genetic disposition are important factors involved in whether or not someone fosters an addiction.

Several other drugs have the potential to be addictive. Nicotine and alcohol also activate the reward pathway, although typically indirectly in comparison to cocaine, which reaches all areas of the brain and binds strongly to areas in the reward pathway.²¹

Dr. Nora Volkow, MD, Director of NIDA summarizes, "Although each drug has a different mechanism of action, each increases the activity of the reward pathway by increasing the effects of dopamine. Addiction is truly disease of the brain."²²

Teenagers and the Developing Brain

Scientists have known for some time that the human brain continues to develop from birth throughout childhood and adolescence up until early adulthood.²³ During the process, new pathways for communication and information processing are created and brain structure changes. One area undergoing significant development during teenage years is the pre-frontal cortex.

In addition to its role in the reward pathway, the pre-frontal cortex is a key area of the brain involved in cognition, planning, and decision-making.²⁴ Assessing situations, weighing options, and making judgments are routine functions of this area of the brain.

Teenagers try new things and take risks as a part of normal development. Using a drug, or repeatedly using a drug is one type of risk behavior adolescents are vulnerable to, partially because the area of the brain responsible for making "good decisions" is not fully developed.

²¹ "The Neurobiology of Drug Addiction," *NIDA*, last modified January 2007, <https://www.drugabuse.gov/publications/teaching-packets/neurobiology-drug-addiction>.

²² ND Volkow ND and M Morales, "The Brain on Drugs: From Reward to Addiction, *Cell*, 162 (2015): 712-725.

²³ N Gogtay, JN Giedd, et al, "Dynamic Mapping of Human Cortical Development During Childhood Through Early Adulthood," *Proc Natl Acad Sci*, 101(21) (2004): 8174-8179.

²⁴ JS Fowler, ND Volkow, et al, "Imaging the Addicted Human Brain," *Sci Pract Perspect*, 3(2) (2007): 4-16.

Research has shown that exposure to drugs disrupts the normal functioning of the pre-frontal cortex.²⁵ Coupled with “under-developed” brains and increased vulnerability to making impulsive decisions; this finding suggests that drug use in teens creates a significantly higher biological risk for progression of drug use and the development of addiction.

In addition, numerous imaging studies of adult brains addicted to drugs show changes in brain structure in areas related to the addiction pathway.²⁶ These studies suggest that exposure to substances earlier in life may permanently change key areas of the developing brain responsible for developing addiction.

Summary

- Scientists have learned a great deal about biology of addiction. It is well accepted that addiction is a disease of the brain.
- Reward is a key factor in the development of addiction.
- The prefrontal cortex, nucleus accumbens, and ventral tegmental area are specific regions of the brain which mitigate reward.
- Dopamine is the neurochemical thought to be the primary transmitter carrying information about a pleasurable experience to and within the reward pathway.
- Drugs such as heroin directly or indirectly affect dopamine in a manner that activation of the reward pathway can predispose to repeated use. Repeated use and intense and quick delivery

²⁵ ND Volkow ND and M Morales, “The Brain on Drugs: From Reward to Addiction, *Cell*, 162 (2015): 712-725.

²⁶ JS Fowler, ND Volkow, et al, “Imaging the Addicted Human Brain,” *Sci Pract Perspect*, 3(2) (2007): 4-16.

of a drug to the opioid receptors in the brain can cause a “surge” or intensification of the pleasurable experience. This can result in drug seeking behaviors aimed to re-stimulate the reward pathway.

- Tolerance, dependence, and withdrawal are separate entities but can all be involved in the development of addiction. These use-related conditions are created by the brain chemistries described in this summary.
- Not every individual who uses substances will become addicted and not every individual who is addicted will have the same disease course.
- Other factors including environment, genes, developmental, social, and cultural components impact whether or not an individual who repeatedly uses progresses to an addicted state.
- Active research is being conducted to better understand how these additional factors affect addiction.
- Teenagers are at increased risk for using substances partly due to the way brain functioning develops over time. In addition, exposure to substances is thought to cause changes in the brain structure itself that makes adolescents at particularly high risk for becoming addicted.

Section 3: Prescribing Practices and Recommendations:
Dan Muse, MD
Signature Healthcare - Brockton Hospital

Introduction

In 2015, 615 opioid overdoses were treated at Signature Healthcare-Brockton Hospital. In 2016, the number increased to 648. This epidemic, that is taking the lives of so many people, is directly caused by the duplicitous actions of America's pharmaceutical companies, one in particular catalyzing and energizing this great American debacle.

Pharmaceutical companies, in particular Purdue Pharma, duped our government, medical community and the general population into believing opioids (especially their own pill, OxyContin) was safe for the treatment of any pain.

During the 1990's, and into the first decade of the 2000's, Purdue Pharma, lobbied governmental and medical agencies into supporting the liberal use of narcotics for virtually any type of pain. In 2001, the pharmaceutical lobby spent \$100 million and used part of their paid persuasion to convince the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) to improve pain management at their affiliate hospitals. JCAHO then approved a directive that was sent to 20,000+ hospital members mandating improved standards of care for the management of pain. In December of 2003, the Joint Commission allowed Purdue Pharma to fund a pain management course for all of its members. Purdue Pharma also subsidized pain groups who would advocate for better management of pain and organizations were formed and funded by the pharmaceuticals that had patients and family members rate healthcare professionals on how well their pain was treated.²⁷

At the legislative level, pharmaceuticals lobbied state legislatures to pass laws which limited or eliminated liability to healthcare professionals for overprescribing pain medications. Purdue

²⁷ J Smith, "Kingpins: Oxycontin, Heroin, and the Sackler-Sinaloa Connection" last modified September 10, 2015. <https://addictionunscripted.com>; "Prescription Drugs OxyContin Abuse and Diversion and Efforts to Address the Problem," *Government Accountability Office*, last modified December 2003, <https://www.gao.gov/new.items/d04110.pdf>.

Pharma donated \$100,000 to the Federation of State Medical Boards (FSMB) for printing and distribution of pamphlets outlining safe prescribing practices of opioids. The FSMB also called for doctors to be punished if they did not adequately treat pain.²⁸

Purdue Pharma targeted primary care doctors due to their lack of knowledge in pain management and the fact that they see the most patients. As a result, Purdue Pharma sales force nearly doubled in 7 years from 1996 to 2003. The sales representatives claimed that OxyContin had less than one percent chance of addiction because the drug did not produce a high, nor cause any tolerance. In 2001, 34,000 coupons offering a free first prescription for OxyContin were redeemed. From 1997 to 2001, OxyContin prescriptions rose from 670,000 to 14 million.

In 2007, three Purdue executives plead guilty to criminal charges; admitting to misleading the FDA, clinicians, and the public on the dangers of OxyContin. The company was fined \$600 million dollars and the executives never served a day in jail.²⁹

We are currently in the midst of an epidemic that was created by our own drug cartel which has been fueled by international ones. In Massachusetts, deaths related to opioid overdoses reached 1,379 in 2014, 1,751 in 2015, and 1,979 in 2016.³⁰ Nationally, in 2014, 28,647 died from opioid overdoses while 8,124 deaths occurred from firearms. The medical profession cannot stop what is passing into our borders. It can, however, prevent future opioid addictions and assist in the treatment of those afflicted. These efforts must be legislative, voluntary, and above all educational.³¹

²⁸ J Smith, "Kingpins: Oxycontin, Heroin, and the Sackler-Sinaloa Connection" last modified September 10, 2015. <https://addictionunscripted.com>

²⁹ J Smith, "Kingpins: Oxycontin, Heroin, and the Sackler-Sinaloa Connection" last modified September 10, 2015. <https://addictionunscripted.com>; Katherin Eban, "OxyContin: Purdue Pharma's Painful Medicine" last modified November 9, 2011. <http://fortune.com/2011/11/09/oxycontin-purdue-pharmas-painful-medicine/>

³⁰ "Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents," *Massachusetts Department of Public Health*, last modified February 2017, <http://www.mass.gov/eohhs/docs/dph/stop-addiction/current-statistics/data-brief-overdose-deaths-february-2017.pdf>.

³¹ "Opioid Overdose," *Center for Disease Control and Prevention*, last modified October 23, 2017, <https://www.cdc.gov/drugoverdose/index.html>.

In March of 2016, Governor Baker signed into law a bill which began to address the opioid crisis. Several pertinent sections applied to the healthcare community.³²

- Education on controlled substances would become part of the renewal process for a license.
- First time use of an extended release long-acting opioid in a non-abuse deterrent form for outpatients shall require an evaluation including substance abuse risk along with appropriate explanation of the medications being used.
- Long term use of opioids will require a written pain management treatment agreement with the patient.
- First time issuance of an opioid prescription to an adult for outpatient use cannot be for more than a 7-day supply. No opioid prescription to a minor can be for more than 7 days and the parents must be made aware.
- A healthcare professional may write for more than 7 days if it is deemed necessary to treat acute or chronic pain so long as the reason is documented.
- Healthcare professionals must use the prescription monitoring program prior to prescribing any schedule II or III drugs.
- The registry boards for medical professionals will monitor annually the number of schedule II and III prescriptions written.
- Substance abuse evaluations shall be offered to anyone who is being treated for an opioid overdose.

In July of 2016, the protective custody law was extended to cover anyone “impaired” by substances other than alcohol. The law is only enforceable by police and leaves open how opioid overdoses who receive naloxone should be treated.³³

³² Bill H3817, 189th (MA 2015-2016), <https://malegislature.gov/Bills/189/House/H3817>.

³³ Bill H4490, 189th (2015-2016), <https://malegislature.gov/Bills/189/H4490>.

- The Executive Office of Public Safety and Security has interpreted naloxone as a temporary reversal and the recipient can still be subject to Protective Custody. Also, the substance users can be considered a risk to themselves and others in that the persons just died and if allowed to leave, could get into an accident hurting others when traveling in a vehicle.
- Massachusetts Office of Emergency Medical Services has viewed this from a medical position and stated that a person who has received naloxone may refuse treatment if they are competent and can show capacity.

Recommendations

The success of any substance abuse program is to prevent future abuse. For the medical profession, this means a better awareness of how to treat pain, recognition of signs of abuse, judicious use of opioids and educating the patients on opioid abuse and alternatives to pain management.

It is also the intention of these recommendations to focus on acute pain. By doing so, we eliminate compromises that must be placed when combining acute and chronic pain management. In addition, if acute pain is appropriately addressed, it may reduce the amount of chronic pain cases

*ACUTE PAIN for purposes of these recommendations shall include pain as a result of a recent or immediate injury, acute illness or post-operative recovery from surgery.

Management of Acute Traumatic and Post-Surgical Pain

1. The primary management of acute pain should involve the use of non-steroidal anti-inflammatory drugs and acetaminophen.
2. Each patient should be counseled on the use of other modalities such as ice, elevation, and rest.

3. No more than 3 days of opioids should be prescribed. The dosage should be the lowest reasonable amount for the patient's size and not more than 3 to 4 times a day.
4. It should be emphasized that opioids are the second line in the management of pain and not the primary source of relief.
5. The patient should be counseled and given written information on opioids that include at least the following:
 - a. Explanation of what an opioid is and how it treats pain.
 - b. Abuse potential of opioids.
 - c. Adverse effects caused by opioids.
 - d. Warning of mixing opioids with other drugs and/or alcohol.
 - e. Warning against driving or using machinery with opioids and similar drugs.
 - f. How to dispose of opioids and all medications.
6. The prescription Monitoring Program, as per Massachusetts state law, should be accessed prior to prescribing any opioids. Medical records should be reviewed when available.
7. Lost prescriptions should not be refilled.
8. Opioids should not be prescribed to anyone currently prescribed Suboxone and/or other opioids and complaining of an exacerbation of their chronic pain or an acute injury.

Management of Patients Who Have Been Prescribed More Than One Prescription of Opioids

1. Opioids can cause an early emotional craving that leads to physical abuse. Any patient under the age of 21 who is prescribed more than one prescription should be assessed for possible withdrawals when the opioids are terminated.
2. Counseling and assessment of early addiction and signs of withdrawals should occur with any patient prescribed more than 50 tablets of any narcotic.

3. Any patient under the age of 21 who has received more than 50 tablets of any narcotic for a given injury or surgery should have a SBIRT: Screening, Brief Intervention, and Referral to Treatment at-risk assessment which can be performed by trained nursing personnel.³⁴
4. Follow up conversation by the prescriber or an office designee should occur with any patient given more than three days of opioids to assess how the patient is tolerating the pain and discomfort.

Emergency Department Management of Overdoses

1. Emergency departments should offer a substance use disorder evaluation to all opioid overdose cases as mandated by state law.
2. Resources such as “recovery coaches” and lists of detox facilities should be offered.
3. A list of local resources should be provided upon discharge for all persons who have been admitted as a result of an opioid overdose.
4. Naloxone, with proper instructions provided, should be offered to all opioid overdose survivors upon discharge.

Management of Chronic Pain

1. The care of a chronic pain patient should be handled by a chronic pain specialist or in conjunction with a specialist.
2. Alternative methods of pain management should be encouraged and utilized.
3. Naloxone should be prescribed for patients on large doses of narcotics or on a combination of opioids and other sedative drugs.

³⁴ “Screening, Brief Intervention, and Referral to Treatment (SBIRT),” SAMHSA, last modified September 15, 2017, <https://www.samhsa.gov/sbirt>.

4. Education on signs of abuse along with the side effects of opioid use should be provided verbally and in writing for the patient and family members.
5. The Prescription Monitoring Program should be utilized to assure the patient is not seeking prescriptions elsewhere.
6. Departments and physician groups should continually monitor the number of opioids prescribed for chronic pain.
7. Statistics should be maintained and made available to any local agency on patients treated for an opioid overdose.

Pre-Hospital Management of Opioid Overdoses

Keeping in mind the present Protective Custody law, as well as the high risk of accepting refusals, from a person who has just received Naloxone, the following is recommended.

1. All impaired individuals due to substance abuse, including those who have received naloxone, should be transported to an emergency department for observation and an opportunity to receive a substance abuse crisis evaluation.
2. Persuasion followed by placement into protective custody should be used in the event a person who has received naloxone wishes to refuse treatment.
3. Local police departments should agree to come and place a person who has overdosed or is impaired, in cases where they are not originally at the scene.

Education

1. There should be continued efforts at self-education about substance abuse and treatment of pain.
2. Every office should have educational information on the dangers of substance abuse.
3. Counseling by the practitioner or designee should occur with any schedule II prescription.

4. Healthcare providers need to become involved in outreach programs within their communities.

Section 4: Pregnancy, Newborn Babies and Drug Endangered Children
 Hillary Dubois, Gabrielle Peruccio & Amanda Sandoval
 High Point Treatment Center, Prevention Services

Pregnancy

Effects of Substance Use During Pregnancy

It is a basic concept that in pregnancy, everything that the mother consumes, the fetus consumes. However, it is estimated that approximately 5% of women take illicit drugs during their pregnancy.³⁵ It is largely understood that the number of women using substances in pregnancy is significantly higher than estimates, as most accounts are based on self-report. In general, the risks of using illicit drugs during pregnancy are significant, with both short term and long term ramifications to mother and child. Exposure to alcohol, tobacco, and other drugs is the most preventable source of developmental compromise in utero in the United States.³⁶

The impact on a fetus as a result of a mother's consumption of alcohol, tobacco, and other drugs varies by substance. The time of consumption during gestation and the frequency of use also contribute to the level of risk to the fetus. The risk of stillbirth is two to three times higher in women who consume tobacco, alcohol, or other drugs. Other risks associated with substance use in pregnancy include: miscarriage, low birth weight and stature, premature birth, sudden infant death syndrome, drug dependency in the baby, and birth defects. Birth defects range from behavioral problems, poor growth, stroke, feeding problems, heart problems, vision impairment, deformed limbs, brain damage, facial, reproductive and urinary system abnormalities and cognitive delays.³⁷

Pre and Post Natal Care

³⁵ R. Stone, "Pregnant Women and Substance Use: Fear, Stigma, and Barriers to Care" *Health & Justice* 3. no. 1 (2015);, doi: 10.1186/s40352-015-0015-5.

³⁶ BM. Lester, JE Twomey, "Treatment of Substance Abuse During Pregnancy" *Women's Health* 4. no. 1, (2015): 6777, doi: 10.2217/17455057.4.1.67.

³⁷ "Alcohol, Drugs, and Babies: Do You Need to Worry?" *Healthline*, last modified March 8, 2016, <http://healthline.com/health/pregnancy/alcohol-drugs?print=true>.

Complications associated with early identification and thus early treatment of substance use amongst pregnant women is multifaceted due to fear and access. In 2016, the Supreme Court of the United States ruled the use of drug screening of pregnant women without consent or a search warrant to be illegal. Though it is routine to do drug screening in the course of standard prenatal care, it is important to recognize that this practice could deter women from obtaining care out of fear. Women will delay prenatal care out of fear of judgment, ridicule or that their child or children will be taken from them. Access issues around insurance, transportation, financial capacity and being in a supportive environment, are also common factors as to why women using substances delay or deny prenatal care.³⁸

Treatment for pregnant women needs to be well rounded and consider not only medical factors but also social factors to increase success. Most substance use treatment programs are geared towards men and don't consider the unique experiences of women, particularly pregnancy. Pregnant women are, however, identified as priority patients, and their access to treatment is expedited. The most effective treatments address the issues of access and fear pregnant women face as they tend to their substance use. These programs provide additional services such as transportation, child care education, care coordination of prenatal care and residential programs that allow for mother and child to stay together after birth. These programs reinforce the strengths of the mother, increase confidence, and reduce stress and depression in the mother, allowing for better outcomes for both mother and child.³⁹

Medicated Assisted Treatment

Withdrawal from opioids can result in miscarriage, pre-term labor and fetal demise, therefore medication assisted treatment is recommended over detoxification for pregnant women.⁴⁰

³⁸ BM. Lester, JE Twomey, "Treatment of Substance Abuse During Pregnancy" *Women's Health* 4. no. 1, (2015): 6777, doi: 10.2217/17455057.4.1.67.

³⁹ Id.

⁴⁰ "Opioid Abuse, Dependence, and Addiction in Pregnancy" *The American College of Obstetricians and Gynecologists* 119. no. 5 (2012):, doi: 10.1097/AOG.0b013e318256496e.

Medications such as Subutex and methadone are utilized to stabilize mother and child during gestation. Methadone has been the standard of care for pregnant opioid dependent women, but Subutex is being used more frequently. The problem with these medications is that they will lead to neonatal abstinence syndrome in the newborn. Pregnant women who present to an inpatient detox program would be treated with methadone or Subutex while at the program and then immediately sent to an outpatient provider to continue care without delay.⁴¹

Newborn Babies

Neonatal Abstinence Syndrome (NAS)

Neonatal abstinence syndrome (NAS) is “a consequence of the abrupt discontinuation of chronic fetal exposure to substances that were used or abused by the mother during pregnancy.”⁴² This syndrome primarily affects the central and autonomic nervous systems, in addition to the gastrointestinal tract. When discussing opioid withdrawal in particular, infants born after exposure to heroin experience earlier and shorter withdrawal, while methadone and buprenorphine exposure lead to later onset and longer withdrawal.⁴³ The withdrawals that a newborn suffers from during NAS are “severe and intense”, causing substantial illness and extended hospital stays. In fact, newborns with NAS stayed in the hospital for an average of “16.9 days compared to 2.1 days” for those without NAS, accumulating individual hospital costs of “\$66,700 on average compared to \$3,500” for those without NAS.⁴⁴

Withdrawal Symptoms

⁴¹ Karen Thomas (Director of Admissions High Point Treatment Center) in discussion with the author, March 9, 2017.

⁴² P. Kocherlakota, “Neonatal Abstinence Syndrome” *Pediatrics* 134. no. 2 (2014); <http://pediatrics.aappublications.org/content/134/2/e547>.

⁴³ Id.

⁴⁴ “Dramatic Increases in Maternal Opioid Use and Neonatal Abstinence Syndrome,” *NIDA*, last modified September 2015, <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/dramatic-increases-in-maternal-opioid-use-neonatal-abstinence-syndrome>.

According to the National Institute of Drug Abuse, one newborn is born suffering from opioid withdrawal every 25 minutes in the United States.⁴⁵ A baby suffering from NAS will usually present with specific symptoms lasting for one to two weeks during the initial phase. These symptoms include tremors, seizures, irritability, feeding problems, vomiting, high-pitched inconsolable excessive crying, hyperthermia, difficulty sleeping and diarrhea.⁴⁶ Following this initial phase, a baby with NAS may present with a “long chronic and relapsing course that includes hyperirritability, sleep disturbances, hyperphagia, and other neurologic and autonomic signs” which can last for a few weeks or up to a few months.⁴⁷

The symptoms that impact NAS newborns in turn create additional consequences for these infants. For example, due to poor feeding, vomiting and diarrhea, NAS infants struggle to gain weight. In addition, severe diarrhea leads to dehydration and electrolyte imbalance, as well as perianal skin excoriation which can cause increased irritability and agitation. Due to the dysregulation and instability of the autonomic nervous system in NAS babies, their heart rate, respiratory rate, muscle tone, and other physiological responses to stimuli are impaired.⁴⁸ Other symptoms can include temperature instability, sweating, sneezing, and mottling which may last for up to several months or longer.

Treatment

In efforts to treat the symptoms that NAS newborns suffer from, medical professionals should consider pharmacological and nonpharmacological care. It is recommended that nonpharmacological care should be the first option attempted with all infants as it is the most easily

⁴⁵ Id.

⁴⁶ P. Kocherlakota, “Neonatal Abstinence Syndrome” *Pediatrics* 134, no. 2 (2014):, <http://pediatrics.aappublications.org/content/134/2/e547>.

⁴⁷ Id.

⁴⁸ Id.

accessible, least expensive, and less controversial.⁴⁹ Overall, the best nonpharmacological care is active maternal participation with an emphasis on “rooming in” of mother and infant which decreases the severity of withdrawal symptoms.⁵⁰ Additionally, “continuous excellent supportive care” from hospital staff can help to avoid pharmacological care and in some cases may lead to earlier discharge from the hospital. There are many approaches to consider for successful management and ease of withdrawal symptoms, including gentle handling, swaddling, skin-to-skin, pacifiers, and minimal stimulation practices with dim lights and low noise.⁵¹ In addition, demand feeding with frequent feeds of high-calorie formula to meet metabolic and nutritional needs is suggested.

Pharmacological care for NAS newborns is only recommended when nonpharmacological approaches are not successful. Currently, there are no universally accepted interventions involving pharmacology or standardized treatments due to the intricacies of withdrawal symptoms. It is only recommended to utilize pharmacological care when “(1) supportive therapy fails to control the signs and symptoms; (2) withdrawal scores remain high; (3) serious signs are observed, such as seizures; or (4) withdrawal is associated with severe dehydration because of diarrhea and/or vomiting.”⁵²

Discharge

When NAS infants are no longer showing signs of withdrawal, are sleeping well, feeding appropriately, gaining weight, and require minimal medical attention, they may be discharged from their hospital stay. Currently, there are no longitudinal follow up studies that extend beyond the first year of life to help understand the long term effects of NAS.

⁴⁹ Id.

⁵⁰ Id.

⁵¹ Id.

⁵² Id.

Drug Endangered Children: Plymouth County, Massachusetts

A drug endangered child, as defined by the U.S. Department of Justice, is “a person under the age of 18 who lives in or is exposed to an environment where drugs, including pharmaceuticals, are present for any number of reasons.”⁵³ It is evident that communities throughout Plymouth County are filled with children whose parents are overdosing, who are entering state custody because their parent has a substance use disorder, and are being raised by grandparents. Drug endangered children are sweeping this region and it is imperative for their needs to be addressed amidst this crisis.

In the current state of the opioid epidemic, Plymouth County is experiencing a rapid increase in rates of fatal and non-fatal overdoses. In 2013, a total of 47 unattended deaths were reported by the District Attorney’s Office in comparison to 130 in 2016. The number of non-fatal overdoses reported by Signature Healthcare-Brockton Hospital and Beth Israel-Plymouth during the time period of January 2016 – November 2016 reached a high of 795. When divided by age category, the numbers of overdoses included:

Under 20 years old	18 overdoses
20-29 years old	318 overdoses
30-39 years old	263 overdoses
40-49 years old	99 overdoses
50-95 years old	95 overdoses

The age distinction is significant because the majority of overdoses formerly fell within the 30-39 age category. However, the 20-29 age category has recently skyrocketed. More often than not this is the age group with children in elementary and middle school. In addition, data shows that

⁵³ “Drug Endangered Children Taskforce,” *Department of Justice*, accessed November 17, 2017. <https://www.justice.gov/dec>.

approximately 65% of unattended deaths took place at home. Parents and siblings are not overdosing in back alleys somewhere; they are overdosing at home, and in front of children. As a result of this, it is essential to focus on the children affected by the opioid crisis and work towards helping traumatized children succeed.

According to Dr. Vincent J. Felitti, “A male child with an ACE Score of 6, when compared to a male child with an ACE Score of 0, has a 4,600% increase in the likelihood of becoming an injection drug user sometime later in life.”⁵⁴ Dr. Felitti challenges the traditional explanations for substance use and addiction, and argues that the use of drugs (including intravenous drugs like heroin) “increases proportionally in a strong, graded, dose-response manner that closely parallels the intensity of adverse life experiences during childhood.”⁵⁵ The more adverse childhood experiences (ACEs), the more at-risk someone is to use drugs.

Kaiser Permanente’s Department of Preventive Medicine conducted the ACE Study in order to analyze the connection between adverse childhood experiences and future health detriments. The ACE study asked participants whether they had been exposed to any of the following:

- Recurrent and severe physical abuse
- Recurrent and severe emotional abuse
- Contact sexual abuse
- Growing up in a household with
 - Alcoholic or drug-user
 - Member being imprisoned
 - A mentally ill, chronically depressed, or institutionalized member
 - Mother being treated violently

⁵⁴ Vincent J. Felitti, MD, “The Origins of Addiction: Evidence from the Adverse Childhood Experiences Study,” *Department of Preventive Medicine: Kaiser Permanente Medical Care Program*, (2004): 7, <http://www.nijc.org/pdfs/Subject%20Matter%20Articles/Drugs%20and%20Alc/ACE%20Study%20-%20OriginsofAddiction.pdf>

⁵⁵ Id. at 3.

- Both biological parents not being present

Kaiser then matched the participants' ACE score with their records for hospitalizations, doctor office visits, pharmacy costs, emergency department visits, and even death records. At the end of the study, researchers found two glaring conclusions: (1) ACEs are fairly prevalent and (2) ACEs are often unrecognized.⁵⁶

Unrecognized and untreated ACEs can lead to a substantial risk of substance abuse for youth. Exposure to trauma resulting from ACEs disrupts neurological development in a way that actually “re-wires” the brain and causes social, emotional, and cognitive impairment. Such impairment eventually can lead to risky behavior as the child turns to substance use to cope with the trauma.⁵⁷

Adolescents seeking relief from trauma caused by ACEs may find refuge in drugs serving as appealing and effective coping mechanisms. Coping devices like alcohol, tobacco, and opioids, are enticing because they provide actual short-term emotional healing, but lead to long-term risks like addiction.⁵⁸ Dr. Felitti explains that “addiction is primarily a consequence of adverse childhood experiences... [and is] a readily understandable, although largely unconscious, attempt to gain relief from well-concealed prior life traumas by using psychoactive materials.”⁵⁹

It is notable to highlight that just because someone has an ACE, does not mean that they will automatically develop a substance use disorder. The essential takeaway is that children with ACEs

⁵⁶ Id. at 4.

⁵⁷ “Violence Prevention: Adverse Childhood Experiences,” *CDC*, last modified April 1, 2016, <https://www.cdc.gov/violenceprevention/acestudy>.

⁵⁸ Vincent J. Felitti, MD, “The Origins of Addiction: Evidence from the Adverse Childhood Experiences Study,” *Department of Preventive Medicine: Kaiser Permanente Medical Care Program*, (2004): 9, <http://www.nijc.org/pdfs/Subject%20Matter%20Articles/Drugs%20and%20Alc/ACE%20Study%20-%20OriginsofAddiction.pdf>.

⁵⁹ Id.

are more at-risk for addiction. As stated by Felitti, ACEs often go unrecognized, and inaction can lead to eventual self-medication through drugs.

Summary

- Use of tobacco, alcohol, and other drugs during pregnancy is challenging to accurately capture due to the limits of self-report around a stigmatized behavior.
- Use of tobacco, alcohol, and other drugs represent the single most preventable cause of fetal compromise in the US.
- Use of tobacco, alcohol, and other drugs increase risks of stillbirth, premature birth and significant birth defects.
- Women delay prenatal care due to fear and access to adequate treatment.
- Treatment should consider the special needs of a pregnant woman and her child, and provide holistic wraparound services.
- The withdrawals that a newborn suffers from during Neonatal Abstinence Syndrome (NAS) are severe and intense, causing substantial illness that lasts up to several months and extends hospital stays.
- In efforts to treat the symptoms that NAS newborns suffer from, medical professionals should consider pharmacological and nonpharmacological care. It is recommended that nonpharmacological care should be the first option attempted with all infants.
- When NAS infants are no longer showing signs of withdrawal, are sleeping well, feeding appropriately, gaining weight, and require minimal medical attention, they may be discharged from their hospital stay.
- Drug endangered children are sweeping this region and it is imperative for their needs to be addressed amidst this crisis through a multidisciplinary approach involving the medical community.

- Unrecognized and untreated ACEs can lead to a substantial risk of substance abuse for youth.
- Exposure to trauma resulting from ACEs disrupts neurological development, in a way that actually “re-wires” the brain and causes social, emotional, and cognitive impairment.
- Training medical professionals to look at early adversity as a public health problem is a recommendation that the medical community should practice.

Recommendations

Substance Use During Pregnancy

- Support programs geared towards women that provide non-judgmental substance use and pregnancy screening for early identification.
- Provide adequate education for women around risks that children face due to exposure to substances in utero.
- Increase access to programs that provide wraparound services, allowing mother to stay with child and promote confidence and autonomy.

Newborns with Neonatal Abstinence Syndrome

- Consider a “volunteer infant cuddler” program at your medical facility to ensure that babies have immediate access at all times to be calmed and soothed before the cycle of “irritability, excessive crying, poor feeding, and lack of sleep sets in.”⁶⁰
- Substance misusing mothers are a vulnerable group with low breastfeeding rates. It is important to consider the increasing evidence that “breastfeeding infants can be beneficial in reducing the severity and intensity of symptoms of NAS.”⁶¹

⁶⁰ P. Kocherlakota, “Neonatal Abstinence Syndrome” *Pediatrics* 134, no. 2 (2014):, <http://pediatrics.aappublications.org/content/134/2/e547>.

⁶¹ M. Balain and K. Johnson, “Neonatal Abstinence Syndrome: The Role of Breastfeeding,” *Infant* 10, no. 1 (2014): 9-13, http://www.infantgrapevine.co.uk/pdf/inf_055_nen.pdf.

- Multiple studies have endorsed that breast milk contains only minimal quantities of methadone and buprenorphine.⁶² Support and a positive attitude from healthcare professionals are essential in helping these women to breastfeed their infants.⁶³
- Morphine is considered to be the most commonly preferred medication used by medical professionals when treating NAS newborns. When administered in varying doses, morphine decreases many withdrawal symptoms, however, increases the duration of hospital stay. This medication has a short half-life, and considered to be most safe for NAS management.

Drug Endangered Children

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), “research has demonstrated a strong relationship between ACEs, substance use disorders, and behavioral problems...over time, and often during adolescence, the child may adopt negative coping mechanisms, such as substance use.”⁶⁴ SAMHSA recognizes that both preventing ACEs and working with children who have ACEs are effective prevention best practices.

SAMHSA specifically highlights that the following strategies can strengthen prevention efforts:

- Increasing awareness of ACEs among state- and community-level substance misuse prevention professionals, emphasizing the relevance of ACEs to behavioral health disciplines.
- Including ACEs among the primary risk and protective factors when engaging in prevention planning efforts.

⁶² P. Kocherlakota, “Neonatal Abstinence Syndrome” *Pediatrics* 134. no. 2 (2014);, <http://pediatrics.aappublications.org/content/134/2/e547>

⁶³ M. Balain and K. Johnson, “Neonatal Abstinence Syndrome: The Role of Breastfeeding,” *Infant* 10, no. 1 (2014): 9-13, http://www.infantgrapevine.co.uk/pdf/inf_055_nen.pdf.

⁶⁴ “Adverse Childhood Experiences,” *SAMHSA*, last modified September 5, 2017, <https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences>.

- Selecting and implementing programs, policies, and strategies designed to address ACEs, including efforts focusing on reducing intergenerational transmission of ACEs.
- Using ACEs research and local ACEs data to identify groups of people who may be at higher risk for substance use disorders and to conduct targeted prevention.⁶⁵

Additionally, the Plymouth County Drug Taskforce presents the following recommendations for communities to consider:

- Develop a multi-disciplinary team to address the needs of drug endangered children.
- Train medical professionals to look at early adversity as a public health problem.
- Train school districts on creating trauma-sensitive environments and strategies to prevent students from future substance use. The Trauma Learning Policy Initiative's (TLPI) Helping Traumatized Children Learn program is the recommended curriculum for training schools on trauma-sensitive best practices.
- Train police and school personnel on the Handle with Care model. This model is very simple: "If a law enforcement officer encounters a child during a call, that child's name and three words, HANDLE WITH CARE, are forwarded to the school before the school bell rings the next day. The school implements individual, class and whole school trauma-sensitive curricula so that traumatized children are 'Handled With Care'. If a child needs more intervention, on-site trauma-focused mental healthcare is available at the school."⁶⁶

⁶⁵ Id.

⁶⁶ "Handle with Care," *West Virginia Center for Children's Justice*, accessed November 11, 2017. www.handlewithcarewv.org.

Section 5: Facility Access
Shannon Elliott, LICSW, MSW
Highpoint Treatment Center

Available Facilities

Detox or acute treatment services (ATS) are medically monitored programs that provide 24hr nursing care, under the consultation of a medical director, to monitor and alleviate an individual's withdrawal symptoms. During their stay, all clients collaborate with a case manager to develop and implement an aftercare plan that may include clinical stabilization services, transitional support services, residential rehabilitation, outpatient counseling or medically assisted treatment as clinically appropriate. The average length of stay for medical detoxification is 3-5 days.

Clinical Stabilization Services (CSS) provide clinical, 24 hour inpatient care for those that do not meet the criteria for detox or are stepping down from detox, but continue to need stabilization services. Average length of stay is 10-14 days.

Transitional Support Services (TSS) are short term residential programs for clients that need stabilization while awaiting an open bed in a long term residential program. TSS programs provide 24hr structured supportive housing utilizing case managers to provide psycho-educational groups and individual service plans. Average length of stay is 14-21 days.

Section 35 facilities are staff-secured, but not locked, treatment programs for individuals who have been civilly committed. Services include a Detoxification Unit, Clinical Stabilization Services and Transitional Support Services. For a civil commitment an individual must present as dangerous

to self and/or others to a judge. An evaluation can be requested by family, legal or medical professionals. Average length of stay is 24-27 days.

As of September 1, 2016, there were 1,979 inpatient and other acute substance abuse service beds in Massachusetts. 165 (level 4) medically managed beds, 788 (level 3) medically monitored beds, 454 CSS beds and 342 TSS beds; 25 men, 62 women and 255 co-ed. Section 35 services (ATS and CSS) have 230 beds. The website www.moar-recovery.org has up to recovery resources.

Gaining Access

Voluntary

ATS, CSS and TSS are voluntary admissions. Individuals must call the agency to see if a bed is available. Insurance dictates length of stay and financial responsibility. DPH funded beds are available for those without health insurance at some but not all facilities. Clients can choose to leave any time.

Section 35

For a civil commitment an individual must present to a judge as dangerous to self or others. They will be committed to a section 35 facility for up to 90 days. Clients cannot choose to leave as the facility is secure, but not locked. Family, medical and legal professionals can present information to the court for section consideration. *Massachusetts Bar Association's Section 35 Helpline is available toll-free at (844) 843-6221 or via email at [e-mail HelpUs] to assist families. The program will connect families with volunteer lawyers, who will assist them pro bono (for free) with their Section 35 petitions, up to and including going to court.* For more information: <http://www.massbar.org/publications/e-journal/2016/january/01-07/section-35>

Recommendations

There are currently not enough CSS beds available in the state. There are twice as many ATS beds. The length of time spent in CSS is double the time spent in ATS, creating a CSS bed shortage and preventing the flow of treatment and impacting the patient's recovery.

- Physician group practices should be open to prescribing Suboxone and Vivitrol to their patients, while collaborating with community treatment centers to increase the access to medically assisted treatments (MAT).
- Low reimbursement from insurances makes it difficult for existing providers to expand and to meet the current needs. It should be mandated that all insurances cover recovery coaches after an overdose in Emergency Departments and ATS facilities.
- There is a lack of professionals coming into the addiction treatment field. Behavioral health therapists should be trained in both mental health and substance use disorders to improve the quality and continuity of care.
- There should be incentives for psychiatrists involved in addiction certified programs to increase the availability of medication providers for dually diagnosed individuals.

Section 6: Data Collection
Lisa Harrington, RN
Signature Healthcare - Brockton Hospital

Background

In 2013, the opiate overdose rate was on the rise despite hospital and community interventions, education in the community, detoxification programs, etc. In an effort to see if trends could be found or if community education was effective, statistics started to be compiled. The initial collection of data focused on if the patient arrived via EMS or car. As the data was collected, there was a noticeable shift noted. Patients were no longer arriving by car and soaking wet from being thrown in a shower or tub of ice. This was as a direct result of the education being given in the community. The next item collected was the administration of nasal Narcan and by whom the Narcan was given. This allowed data to be tracked regarding EMS, police or bystander administration of Narcan which, as we know, has a direct correlation with the survival of the overdose victim. Age, ethnicity and location of the overdoses were collected as well. This assisted with looking at trends such as: did the opiate overdose use in the town of residence or perhaps the town of purchase; were there multiple overdoses in a day in a particular town; were there critical outcomes related to opiate overdoses. All of this information allows for the implementation of outreach to the community to provide real-time safety messages to opiate users and their families, law enforcement, detox facilities, etc, so that we may work together to do what we can to prevent future opiate related deaths.

Opioid Data Collection Policy

Purpose

The Opioid Data Collection Policy seeks to establish guidelines for the identification and reporting of opioid overdose data. The goal is to share valuable information within the multi-

disciplinary members of the Plymouth County Drug Abuse Task Force, and assist with facilitating opportunities to develop strategies to minimize opioid related deaths, assist in measuring local initiatives, enhance opioid education, and enhance optimal outcomes. Database management is the “Holy Grail” of connectivity.

Why collect data?

- To memorialize data.
- Provide statistics.
- Monitor trends.
- Measure interventions.
- To assist achievement of worthwhile objectives – to change (how much, what, when, how) or to not change.
- Collecting data allows for an opportunity to accurately identify a problem and provide a clear area to focus on.

Level of reporting data

- Data is sent to the Plymouth County Drug Abuse Task Force.
- Data is to be collected by participating hospitals. The hospital shall select an individual to compose the data.
- Safety messages will be devised by the Plymouth County Drug Abuse Task Force and distributed to hospitals and pre-determined agencies to alert the community of spikes in overdoses, unusual deaths, centralized location of strong opiate product, etc.

Data Validation

- To maintain integrity of data, the collecting hospital will determine an appropriate identification point (i.e. account number, medical record number, etc.). This identification point will preserve confidentiality while serving as a point of corroboration to ensure data collected is not corrupted.

Data Source

- Emergency Room patient record

Components of data to be collected

- A. Town in which overdose occurred
- B. Town in which patient resides
- C. Age
- D. Sex
- E. Ethnicity
- F. Opiate ingested (if known)
- G. Nasal Narcan administered and by whom (i.e. police, fire, EMS, bystander)
- H. Other Narcan provided with amount (i.e. IV/IM example 2 mg Nasal Narcan and 4 mg IM Narcan)
- I. Other pertinent information to assist in monitoring trends (i.e. found in running car; CPR; overdosed with friends; intentional overdose, etc.)
- J. Substance abuse evaluation completed or refused
- K. Disposition (i.e. home, treatment, expired)

Section 7: Public Awareness Campaigns
Patrick Nevins—Plymouth County District Attorney’s Office
Karen Barry—Plymouth County Sheriff’s Department
Beth Stone—Plymouth County District Attorney’s Office

Effective Communication Strategies

The Substance Abuse and Mental Health Services Administration (SAMHSA) recognizes two core prevention strategies: individual and environmental. Individual strategies focus on healthy development and treatment, whereas environmental strategies are much broader, and focus on changing the social norms within a community away from favoring substance use. Environmental strategies specifically utilize communication and education, as well as enforcement activities. Essentially, media communication increases public awareness, public education, and advocacy, which results in altering the way a community perceives a particular issue. Enforcement compliments these efforts by visibly showing the community certain behaviors are unacceptable. When combined correctly, overtime, environmental strategies change the ‘culture’ of the community.⁶⁷

The anti-tobacco efforts are the quintessential example of the success environmental strategies can have in reducing substance use. According to the Surgeon General’s report, *The Health Consequences of Smoking—50 Years of Progress*, “underlying the decline was increasing public understanding of the dangers of cigarette smoking and increasing unacceptability of being a smoker; that is, the social norm around smoking changed from being completely acceptable and woven into day-to-day activities and interactions among people to becoming an increasingly unacceptable behavior.”⁶⁸ The culture of tobacco use in communities changed as a result of youth receiving greater education on the dangers of tobacco, advocacy leading to smoke-free

⁶⁷ “Prevention Approaches,” *SAMHSA*, last modified July 21, 2016, <https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-approaches>.

⁶⁸ “The Health Consequences of Smoking – 50 Years of Progress. A Report of the Surgeon General,” *U.S. Department of Health and Human Services*, (2014): 3, <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>.2014.

environments, taxes and increased compliance checks making access to tobacco more difficult, and strong marketing strategies countering ‘Big-Tobacco.’⁶⁹

Consider the environmental differences between generations. For young adults in their 20s and 30s, their parents and grandparents often tell the stories of smoking sections on airplanes, smoking at the dinner table, road trips with a car full of smoke, smoking at work, etc. Contrastingly, these young adults have never walked into a bar or ate at restaurant with people smoking around them. Their television programs growing up were full of anti-tobacco ads, and at school they learned about how smoking causes cancer and heart disease. There is not a young adult who does not remember the Centers for Disease Control and Prevention’s (CDC) advertisement *Terrie’s Tale*, which was narrated by a former smoker, Terrie, with the assistance of an artificial voice box.⁷⁰ Effective environmental strategies made tobacco taboo and eventually made tobacco nonexistent in the lives of youth growing up in the 1990s, and 2000s. 23% of teens smoked in 2000 and only 6% smoke today.⁷¹ Locally, in middle and high schools, past-30 day use of cigarettes consistently ranks low, and perception of harm towards cigarettes often ranks ahead of any other substance.

In order for the Plymouth Count Drug Abuse Task Force to prevent continuing opioid misuse, a robust marketing strategy must be implemented. Marketing includes a combination of owned, earned, and paid media.

Recommendations

Owned

The Task Force will very shortly have its own webpage which will serve as a clearinghouse of information including upcoming events, best practices, data, and technical assistance. In moving forward, it will be beneficial for the Task Force to explore a presence in social media: Twitter,

⁶⁹ Id.

⁷⁰ “Terrie’s Story,” CDC, last modified January 20, 2017, <https://www.cdc.gov/tobacco/campaign/tips/stories/terrie.html>.

⁷¹ “We’re Counting on You,” *Truth*, accessed November 17, 2017, <https://www.thetruth.com/about-truth>.

Facebook, Instagram, and Youtube. *The Truth Campaign*, which focuses on tobacco, values the importance of interacting with the community. Specifically, they utilize comment sections and reactionary emojis with their posts.⁷² In addition, with the popularity of blogs amongst the parent population, the Task Force could use blogs as a way to feature short articles by professionals and community members on specified topics. For example, the blog could feature a county doctor and her or his alternative pain management recommendations or a parent who lives in the county and shares his or her advice on how to talk to your kids about drugs. The online forum could also provide a space for community members to ask questions, respond to blog posts, and continue the dialogue.

Example: The Truth: www.thetruth.com

Earned

The Task Force already has the support of the Communications Department at both the Plymouth County District Attorney's Office and the Plymouth County Sheriff's Office. The recommendation is for the Task Force to establish a media sector consisting of local media outlets. Since its inception, the Task Force has been extremely active with numerous events and initiatives from all sub-committees. Continuous media coverage is vital.

Paid Media

The Task Force and other local coalitions have started to use paid advertising to educate and inform the public. Recently, the Brockton Area Opioid Abuse Prevention Collaborative and the District Attorney's Office launched two Opioid PSAs at the East Bridgewater Theatre. In addition, the Collaborative and the DA have sponsored billboards with prevention messaging throughout Brockton, East Bridgewater, Rockland, and Whitman-Hanson. However, there needs to be a

⁷² "Get the Facts," *Truth*, accessed November 17, 2017, <https://www.thetruth.com/the-facts>.

collaborative county-wide messaging effort on education and awareness. Furthermore, the messaging needs to be consistent, concise, credible, and clear. Examples include: a campaign by the Task Force to educate the public on *5 Things Every Patient Needs to Know about Being Prescribed Opioids*; *Plymouth County Drop-In Centers*; *Top 3 Alternative Pain Management Tips*.

Example: American Chronic Pain Association

<https://www.youtube.com/watch?v=CNMWuRPDGoM>

Section 8: Emergency Department Outreach
 Sarah Cloud, MSW, LICSW
 Beth Israel Deaconess Hospital-Plymouth

Emergency Department (ED) Outreach Recommendations

- Develop and implement expedited referral process with detox and MAT programs.
Formalize relationships to improve communication about appropriate referrals, urgent and routine referral processes, timely feedback, and daily/weekly wait time updates.
- Implement Section 35 protocol in partnership with the local District Court.
Develop a hospital-wide protocol that is developed in conjunction with the DFP which outlines the assessment and referral process for petitioning the court for a Section 35 in the absence of a family member or spouse available and/or willing to pursue this path.
- Care planning focused on addressing high utilization patterns.
Develop ED care plan alert policies and procedures as a means of facilitating information sharing across numerous providers in a way that is easily accessible during admission. The plan addresses diagnosis, utilization patterns, key contacts and recommendations.
Recommended procedure and templates for ED Care Plan Alerts are available at www.ahrq.gov/.../mcaidread_tool13_ed_care_plan.docx
- Collaborate between EDs to ensure consistent protocols
Collaborate with EDs in the region to share policies with the goal of working toward consistencies in practices as a means of limiting opportunities for patients to shop around.
- Engage community providers including school departments and first responders
- Facilitate evening drop in centers with community collaborators to provide additional access to treatment providers, resources and hope
- Written SUDE policy in ED and acute units.

Develop a hospital-wide policy to ensure adherence to the Substance Use Disorder

Evaluation, including operational procedures in the emergency department and acute units.

- Track data related to overdoses and SUDE (reference data tracking section)

Develop a mechanism for tracking data related to opioid overdose by location, town of residence, admonished Narcan, SUDE offered, and SUDE accepted/completed are some of the recommended fields. This information can be helpful to informing need for collaborations, community action and applying for funding.

- Participate in public awareness campaigns such as FACTS, social media, and traditional media venues.

- Provide follow up after an ED visit via phone or in person.

Follow up in person, phone, or text provides another opportunity to engage the person in treatment and/or ensure that there haven't been new obstacles to following through with the discharge plan.

- Provide on-going training, including compassionate care discussions, to ED medical team.

- Distribute and post educational materials pertaining to:

- Naloxone
- Medication disposal
- Risk factors
- Section 35 hotline and mass.gov frequently asked questions (see attached)
- Opioid drop in centers
- Resources, (MOAR mini-guide is recommended)
- Family supports, such as Learn to Cope and Al-non

Section 9: Hospital and Medical Group Outreach
Dan Muse, MD
Signature Healthcare - Brockton Hospital

Healthcare Professionals Role

The role of the healthcare profession in this epidemic is complicated and caused by a multitude of factors. While well intentioned, we as a profession have over prescribed opioids leading to a staggering statistic that 80 percent of all narcotics in the world were at one time prescribed in the United States. How this occurred is due to many factors including a calculated plan by a pharmaceutical company to change how narcotics were used and prescribed in the United States. Along with mandates by the federal government and the insistence of hospital administrators, insurance companies, healthcare agencies, and professional medical societies, the United States saw the evolution of an epidemic that in 2015 caused over 33,000 deaths from opioids.⁷³

This epidemic, unfortunately, also highlights how as a profession we allowed outside forces to dictate the care of our patients. It is imperative that we regain control and proactively make the changes necessary to squash this epidemic. In so doing, we must better educate ourselves. We must work on minimizing the use of narcotics while continuing to appropriately treat pain. We must also work on preventing future substance use disorders by reaching out to our patients and communities and educating them on the dangers of substance abuse and addiction.

Recommendations

Education

- All levels of healthcare professionals must become better informed on alternative modalities for treating pain.

⁷³ “Opioid Overdose,” *Center for Disease Control and Prevention*, last modified October 23, 2017, <https://www.cdc.gov/drugoverdose/index.html>.

- Improved education is needed in the use of opioids and other addictive medications.
- We must learn to recognize the early and late signs of addiction.
- We must better educate ourselves in the understanding and management of chronic pain.
- Publications and posters on prescription abuse, along with resource materials should be provided and placed in office waiting rooms and other appropriate areas.

Substance Use Disorder Assistance

- Patients manifesting signs of addiction should be counseled on seeking help, including detoxification.
- When appropriate, patients with Substance Use Disorder should be assisted in finding a detox facility.
- Patients and family members should receive information on services available.
- Naloxone should be provided to the patient and family in the case of opioid abuse.

Community Outreach

- Healthcare groups and individuals should reach out and assist local organizations with their efforts in treating substance use disorders.
- Healthcare professionals should actively engage the public in educating all age groups about opioids and other substances of abuse.
- We need to take an active role in instituting regulations and laws that will help prevent substance abuse.