REIMAG INING RECOV

The Family First Health Model for Treatment of Opioid Use Disorders in a Primary Care Setting

Produced by Family First Health and Benjamin & Bond

ACKNOWLEDGMENTS

Family First Health & Benjamin & Bond

Upon receipt of a Center of Excellence grant in 2016, Family First Health partnered with Benjamin & Bond, a York-based healthcare innovation company to observe and document the growth of its substance use program. This document has been prepared by Benjamin & Bond for Family First Health and is the product of a deep, year-long collaboration between the two organizations.

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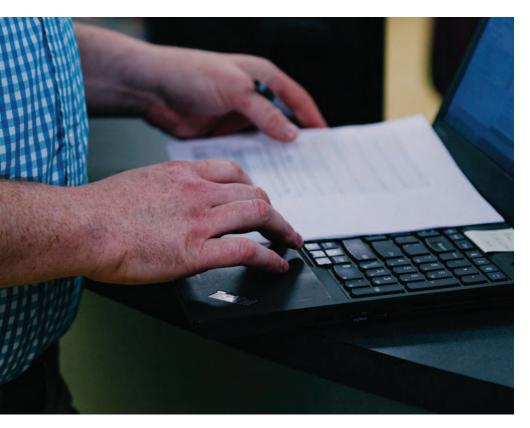
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EXECUTIVE SUMMARY

In 2017, Family First Health (FFH) received a Center of Excellence (COE) grant for treatment of opioid-use disorders from the state government. At the time, the grant required recipients to treat 300 patients in the 2017 calendar year in a program that included Medication-Assisted Treatment (MAT). Family First Health chose to base its program on the Boston Medical Center Office-Based Addiction Treatment model. It began prescribing buprenorphine and naltrexone to patients in October of 2016. It partnered with healthcare innovation consultancy Benjamin & Bond to observe, formalize and document the model and its development throughout 2017.

About Family First Health

Family First Health is a Federally Qualified Health Center (FQHC) servicing York, Adams and Lancaster counties. The organization was started in 1970 to address the roots of illness among underserved communities in the region. Today, FFH offers medical, dental and social services at six locations across central Pennsylvania.

The Model

The Family First Health Model is a team-based approach to substance use disorder treatment focused on augmenting the efficacy of MAT with consistent touchpoints for all patients. Scientific literature suggests that MAT is the most effective method of treating opioid-use disorders.

The FFH Model is a harm-reduction program, based in primary care. The model is different than traditional abstinence-based programs in that it supports the biological, psychological and social needs of patients. The care team consists of:

Provider

To oversee the medical and behavioral health needs of the patient inclusive of MAT, such as buprenorphine and naltrexone

Case Manager

To help the patient navigate the complex system of resources available to meet his or her behavioral health needs (i.e., drug and alcohol counseling, psychiatry) and physical needs (i.e., housing, food, clothing, employment, transportation).



Recovery Support Specialist To create an individualized recovery plan with the patient, coach and provide a source of accountability from a person also in recovery

Licensed Clinical Social Worker To provide assistance with referrals to outpatient providers, coordinate a patient's mental health services, teach coping skills and offer focused interventions in times of crisis or while awaiting connection with community behavioral health resources

MAT LPN

To assist the provider and patient with the prior authorization process, meet quality metrics, provide subspecialty care coordination and perform direct patient care tasks inherent in a primary care practice including administration of medication The goal of the program is ongoing patient engagement. The FFH team believes if a patient continues to engage in care, he or she has the opportunity to be healthier tomorrow than today. Throughout the first year of implementation, the team rallied around a set of core principles.

Primary care is an effective setting for the treatment of addiction.

Because treatment is a lifelong process, primary care—where patients have ongoing engagement with providers both when sick and well—is an appropriate place for a patient to seek treatment. The primary care setting is an appropriate forum to treat all of the biological, psychological and social factors that perpetuate opioid-use disorders.

Addiction is a chronic, relapsing, remitting disease.

The word chronic implies that the disease cannot be cured but can be managed. FFH believes that treatment is a lifelong activity requiring different degrees of intensity depending on the acuity of symptoms.

Harm reduction and a focus on engagement are key to beginning treatment in a medical setting.

Patients will enter the program in vastly different life circumstances and acuities. For some patients, preventing an overdose—or another overdose—until they can be stabilized is success. For others, a reduction in use is an appropriate short-term goal. Total abstinence is ultimately the goal for most patients but is a poor stand-alone measure of programmatic or personal success.

Recovery is an incremental process that often includes relapse.

A patient relapsing does not mean that a patient isn't "ready" for treatment. All individuals with substance use disorders who continue to engage with the program are ready. Even those who fall away often return to treatment if diligently followed.

Treatment cannot be effective unless it addresses the social determinants of health.

FFH believes that factors including, but not limited to, housing, home environment, food, transportation, physical safety, employment, child care, education, insurance status and family/social relationships play a major role in the treatment of addiction for many patients.

Every patient's recovery is different.

Traditional treatment programs place heavy demands on patients who are already overwhelmed. Family First Health requires patients to meet certain expectations but does not mandate adherence to any orthodoxy.

Observations

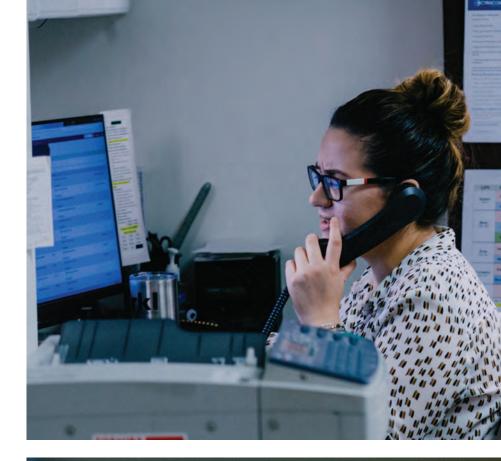
In addition to describing the model in detail, FFH's report includes conclusions drawn after a year of treating patients with its model. These considerations should be top of mind for any organization considering implementation of the model.

Integrating recovery into primary care creates logistical challenges.

Chronic disease management stretches primary care practices. The volume of required appointments and the acute needs of patients make practice management difficult.

Measuring success is a challenge.

Assessing success in recovery is a challenge because it requires a large scope of time. Primary care practices are well-suited to collecting outcomes because they have ongoing relationships with patients, but the





subjective nature of recovery means success is a moving target. Without success measures, it's difficult to assess progress for individual patients or the program as a whole.

Touches are important, and programs must find a way to stay high-touch as they scale.

The FFH Model is human-effort intensive, and when treating a large population, it requires a significant number of FTE. The best way to leverage team efforts is to effectively stratify patients based on immediate risk and focus the most effort on the sickest patients.

Both patients and staff require clear role definition and communication amongst the team. The sheer number of people involved in care can lead to confusion if roles and responsibilities are not clearly delineated. Ensuring that everyone understands roles helps patients and staff stay focused.

Effective treatment requires a balance of flexibility and rigidity. This is both an art and a science.

A combination of education, integrated behavioral health and other services is important to a patient's treatment. Due to the ambiguous nature of this work, flexibility in how and when this is delivered is critical. Finding the right line between unproductive rigidity and anything-goes flexibility is vital to the success of any new program.

There's a constant balance between respecting boundaries and making a human connection.

The focus on personal touch in the FFH model makes the work extremely emotional. Staff must be supported to prevent burnout and ensure the right decisions are made for every patient. The balance between personal connections and boundaries allows the team to create an element of trust with its patients that has been an important aspect of creating continuous patient engagement in the program. Boundaries have allowed the team to stay professional and make judgments to aid in long-term recovery instead of short-term comfort.

The treatment community is frequently missing the mark on behavioral and mental health.

The vast majority of substance-use patients have co-occurring mental illness. Focusing behavioral health intervention only on addiction leaves major issues untreated. Recovery from substance use disorders and co-occurring mental health problems are often intertwined. There is a need to assess the dearth of dual-diagnosis options available and consider how effective counseling for substance use extends beyond the boundaries of traditional drug and alcohol counseling.

The outpatient MAT program is one part of a larger recovery mechanism. Patients need to flow in and out without friction. All patients are different and need different intensity of services at different times. To make a real impact, outpatient MAT programs need to coordinate with local emergency departments and inpatient treatment centers. Patients are frequently unable to manage transitions in care themselves and the system does not make it easy. Across the country, work needs to be done to break down the silos of the treatment community and the medical community.

Programs have to decide how to deal with marijuana.

Traditional abstinence programs take a hard line on most substances. There are different views about the risk of marijuana use amongst the FFH team. Some chronic pain patients are using marijuana in place of opioids they have favored in the past. There is not good science in this area. Anecdotally, FFH patients who used marijuana were more likely to relapse with opioids than those who did not.

Outcomes

Outcomes from the FFH model's first year in operation are both noteworthy and exciting. 206 patients entered the COE program, and of those, only 17% of patients relapsed with any opioid in 2017. 70 percent of patients who came into care stayed engaged throughout the year. When compared to an analogous patient population, the FFH sample had a higher rate of retention, higher percentage of opioid-negative months and higher percentage of patients with a majority of opioidnegative months. More outcomes data is available in the report that follows.

For now, FFH is publicly reporting as much data as it is able to track with accuracy and consistency. The ability to track a single panel of patients over the course of years will provide previously unavailable insight into how time in sobriety, age, physical health and the circumstances of life affect the ongoing treatment of opioid addiction. It is our hope that we can work with other partners in the Center of Excellence Program to provide the medical community with a truly transformative data set in the future.

Conclusion

The FFH Model shows tremendous potential in the treatment of opioiduse disorders. FFH's implementation of the model continues to grow and will see far more patients in 2018. The program itself and its results are a validation of the vision behind the Center of Excellence Program. FFH looks forward to applying the model in service of its own community, but also helping other organizations looking to create treatment programs in effective implementations of their own.







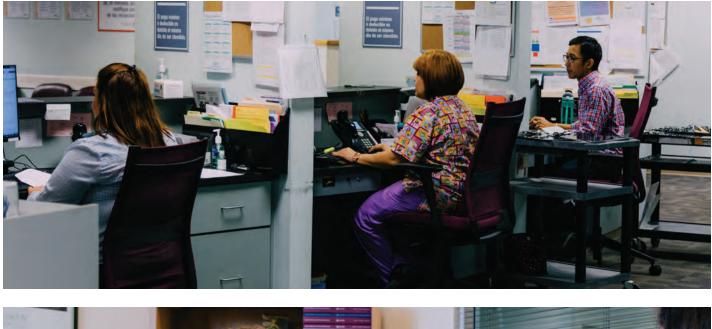
INTRODUCTION

Some ideas and customs have become so ingrained in our culture that people don't even question them anymore. These ideas have been absorbed to the point that we become oblivious to their effects.

We take things as rote, both in life and in medicine. Why do doctors wear white coats? Originally it was to keep their clothes clean, but now it's a strongly embedded symbol. Why is addiction rehab 28 days? Because that's the way it's always been done. Why do we treat addiction the way we do? Because we started doing it this way, and we never stopped. Once you begin picking apart the assumptions society has attached to addiction treatment, you find that we're not too certain about very much at all. All we know is that we fail a lot, and that addiction has reached the point of a public health crisis in the United States.

The Minnesota Model is the basis of the vast majority of inpatient addiction treatment centers in the United States. This model was created in 1949 at the Hazelden Foundation as an offshoot of the Alcoholics Anonymous (AA) 12-step model. Frequently referred to as the "Abstinence Model," it takes the first five steps of the traditional AA program and adds an emphasis on the medical and psychological components of addiction. The Minnesota Model insists on creating an environment of dignity for those in treatment and is built around the idea that every person requires an individualized plan for effective treatment. These are important values on which to build a program and are just as applicable today as they were 70 years ago.

The abstinence model has become synonymous with the concept of treatment. Most people automatically believe that those addicted should stop using all substances as quickly as possible or they are failing. It's not the only way. Harm reduction is "a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use."1 Though the harm reduction model has been a part of modern social science since its creation in Liverpool in the 1980s, it's hard for people within the recovery community to conceive of an approach that's not abstinence-based. It's even harder for the American public. There is still negative sentiment about harm reduction programs as effective as needle exchanges, which keep people safe, cost very little and prevent the spread of diseases that cost thousands or hundreds of thousands of dollars of public funding to treat...and save lives.





"These are groups of people where the general community really questions the value of somebody's worthiness to live among the rest of us... That stokes my personal passion. Everyone deserves an opportunity to be part of the larger society, and if we devalue those individuals, who is next?"

JENNY ENGLERTH

CEO Family First Health

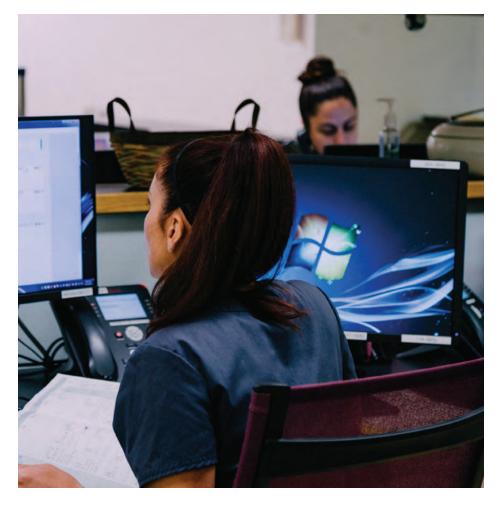
Money available for research and treatment also disproportionately goes to abstinence-based interventions. Medication Assisted Treatment (MAT) programs, like the one run by Family First Health (FFH), in which patients are given pharmacological support with medications like naltrexone or buprenorphine as well as counseling and other support services, have grown slowly despite a wealth of clinical literature supporting their effectiveness.

It's one thing to say publicly that drug addiction is a chronic disease. It's another thing entirely to treat it like one as a society. The goal of treating any chronic disease is to enable the patient to live a happy, healthy and fulfilling life. For a patient with diabetes, that means weight management, abstinence from sugar, abstinence from alcohol and consistent exercise. For a patient with hypertension, it's exercise, stress management, smoking cessation and a low sodium diet. Is the goal a panacea? Do we consider anything other than perfect health to be a failure?

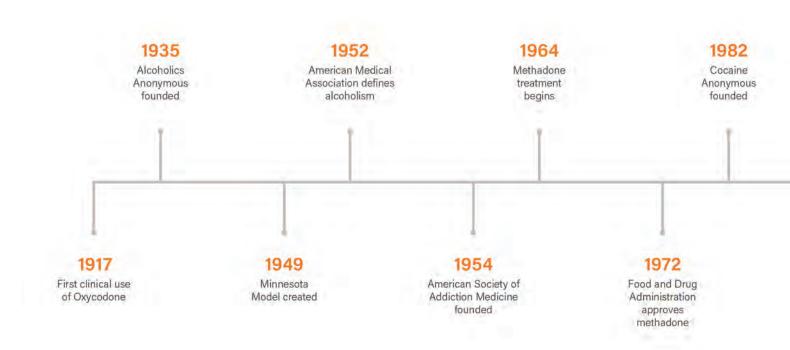
"If I had to design a system that was intended to keep people addicted, I'd design exactly the system that we have right now," addiction expert Dr. Gabor Maté said in the Johann Hari book *Chasing the Scream*. "I'd attack people and ostracize them... the more you stress people, the more they're going to use... So to create a system where you ostracize and marginalize and criminalize people, and force them to live in poverty with disease, you are basically guaranteeing they will stay at it."

"(Addiction) is about 60% genetic and biological—that's about the same percent as asthma or high blood pressure. And no one would dream of treating asthma with psychological methods alone. No one would dream of telling someone with high blood pressure to just relax and take it easy. Why then, with alcohol and drug dependence, would that be a reasonable treatment?"² Bankole Johnson, a professor of neuroscience at the University of Virginia School of Medicine, told Scientific American.

Public opinion has started to turn on the opioid crisis, but most public surveys focus on the crisis almost entirely through the lens of prescription opioid abuse, ignoring the devastating scourges of heroin and fentanyl, an extremely potent synthetic opioid that is frequently involved in overdoses. The general public isn't so sympathetic toward heroin users. A member of the project team had a conversation with an emergency room nurse in the fall of 2017 during which she implied that heroin overdoses were ruining her job. Richard K. Jones, sheriff of Butler County in Ohio, refuses to let his officers carry Naloxone, a potentially life-saving drug that can reverse the effects of an overdose, saying that "I'm not the one that decides if people live or die. They decide that when they stick that needle in their arm."3



MODERN ADDICTION TREATMENT STUDIES AND MILESTONES



"(Convincing people it's a disease) is the fundamental reframing, and we're in the thick of it. This is the messiest part of that process," said Jenny Englerth, CEO of FFH. Englerth draws many parallels between the current state of opioid addiction and the stigma that accompanied HIV/AIDS during her work with patients early in her career.

The opioid crisis has become a topic of daily discussion in the public sphere, but it's unclear how much is being done at a macro level. President Donald Trump has declared the opioid crisis a "national emergency," but as of the end of 2017, the federal government has neither found new money nor substantially changed drug policy.

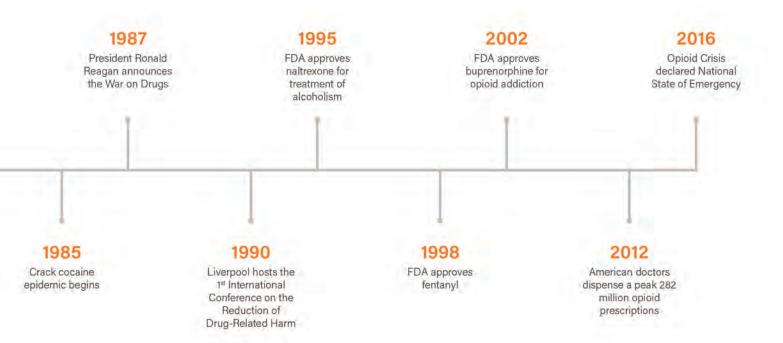
Progress is being made on the front lines. In the communities ravaged by opioids, people are trying new things and dedicating enormous amounts of time, energy and their mental health to helping those in recovery. They are trying to be aware of their own opinions and biases, of the things that working with the addicted—or being addicted themselves—has taught them.

"I was looking at OverdoseFreePA. org this morning, and in York, Adams and Lancaster counties, all the counties we serve, there were almost 500 overdoses between 2016 and 2017, and that's just what was reported..." said Erin Cosgrove-Findley, Program Manager of the FFH Center of Excellence (COE). "We are losing people all the time. What does that mean? We are losing people's parents too, which is just going to create a whole other epidemic of some sort. I'm a firm believer that this epidemic will get worse before it gets better, and we just need to do something differently."

This document is a thorough explanation of how FFH built its treatment model. It is a reflection on the learnings accrued in a year while treating substance use, a thorough description of a model and a clear-eyed assessment of how that model worked in practice at FFH. The formal processes and protocols developed over the course of the year are provided in the appendix to the document.

We hope it is a guide for those looking to start substance use treatment programs in their practices or in their communities. FFH believes two things with equal conviction: primary care is an effective setting to treat substance use disorders, and it is the responsibility of primary care providers to join the fight in this public health crisis.

FFH believes that the work that it's done over the past year and that it will continue to do is a validation of the vision behind the COE program. The reader will find that FFH defines its success by different measures than are traditional, but compared to other studies chosen as benchmarks, the program has been phenomenally successful. Only 14% of patients in the COE program relapsed and tested positive for opioids during their time in the program.



"The traditional ways of doing things haven't worked on a grander scale. Why wouldn't we look at something different? If that means sober for 90 days isn't my definition of recovery, that might be what it means, because you have to think about it differently."

CARRIEANN FROLIO

VP of Integration & Business Development, FFH

THE OPIOID CRISIS IN OUR COMMUNITY

The numbers are staggering and also widely public. No matter how you choose to dissect them, the results are hard to digest. According to the Centers for Disease Control and Prevention, between 2010 and 2016, heroin-related overdose deaths increased by a factor of five—that's 15,469 deaths in 2016. More broadly, in 2016, the number of overdose deaths involving opioids (including prescription opioids and heroin) was five times higher than in 1999. Roughly 48,000 Americans died of opioid overdoses in 2016.⁴

The potential for overdoses grows as the number of individuals with opioid-use disorders grows. According to the National Institute of Drug Abuse, "(In 2015), 2,000,000 people in the United States suffered from substance abuse disorders related to prescription opioid pain relievers, and 591,000 suffered from a heroin use disorder (not mutually exclusive)."⁵

According to the State of Pennsylvania, at least 10 Pennsylvanians die every day from a drug overdose, with more than 3,500 overdose deaths occurring in Pennsylvania in 2015 alone.⁶ The York Opioid Collaborative reports close to 130 opioid overdose deaths in 2016, twice the number in the county in 2014.

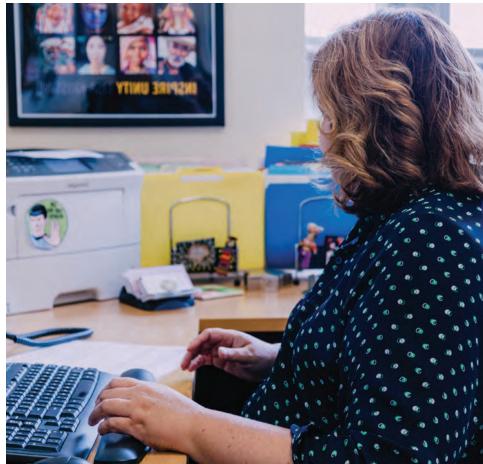
It's a rough estimate, but if one assumes (conservatively) that 2.3 million Americans have opioid-use disorders, and the mortality rate for those disorders is about 2% independent of geography, working backwards there are probably about 6,000 people in York County with opioid-use disorders.

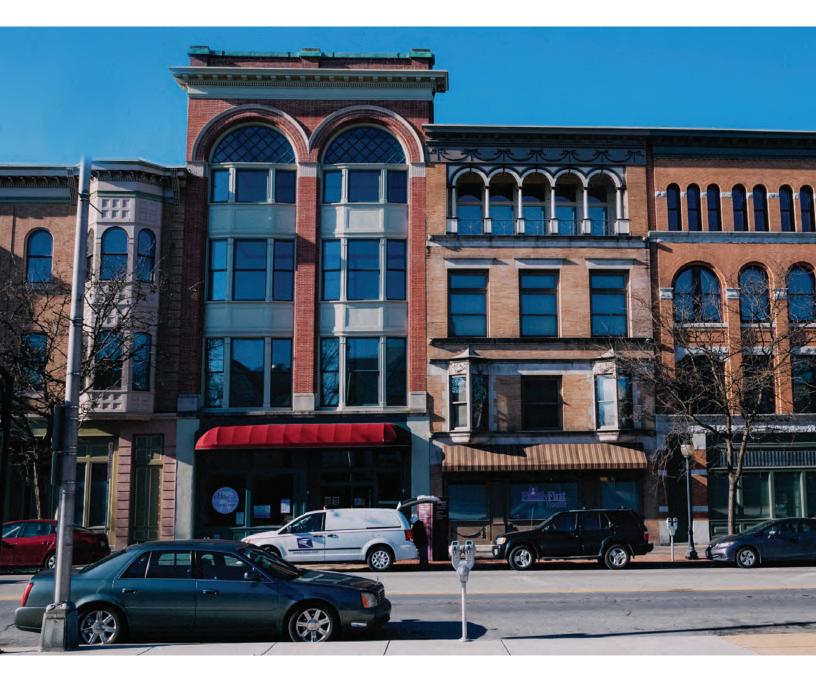














York is a city of roughly 40,000 residents in south central Pennsylvania. Six of the 10 largest media markets in the United States are within 500 miles of downtown, and 40% of North America's population lives within a four-hour drive. York County is known as a manufacturing hub, and throughout its history, the economy of the area has been driven by production of automobiles, trains, paper, snack foods and other consumer goods.

Like many cities with a similar economic history, York's fortunes took a downswing in the middle part of the last century, and like many of those cities, this downswing led to a rise in substance use disorders: first alcohol, then cocaine and heroin. The city has undergone a slow, but steady revitalization in the last decade and a half, but the financial situations of many in the city and county remain tenuous. That said, overdose rates in the county are still below the state average.⁷

Until recently, substance use treatment options in the local community were almost entirely abstinence-based. Inpatient treatment providers are limited and beds are scarce. The region garnered unwanted attention that probably contributes to beliefs about the scope of the opioid problem in the region—when the York Daily Record published a damning piece about the 81 unregulated recovery houses in the city.⁸ Medication Assisted Treatment (MAT) is still a new idea for many in the community. Family First Health was actually one of the first providers of methadone in the area in the 1980s, and methadone is still available through another provider in York. There are also providers within a 45-minute drive in the neighboring communities of Lancaster, Hanover and Camp Hill. These options aside, the largest drug and alcohol treatment programs in the county are based on the Minnesota Model or similar 12-step approaches.

"We're just now getting on board with the concept of Vivitrol (extended release naltrexone)," said Anika Jackson, FFH Substance Use COE Program Director. "They are doing things in the prison, but getting to the point where people could wrap their head around that took some time."

Another Pennsylvania Center of Excellence is also located in the York community, and though its program is based on the idea of traditional drug and alcohol counseling, it is beginning to use MAT. WellSpan Health, the largest health system in the region, has been rapidly growing its MAT program as well and has partnered with FFH on opioid-related initiatives. Slowly but surely, the community is coming around to the idea of treating addiction in a medical setting.

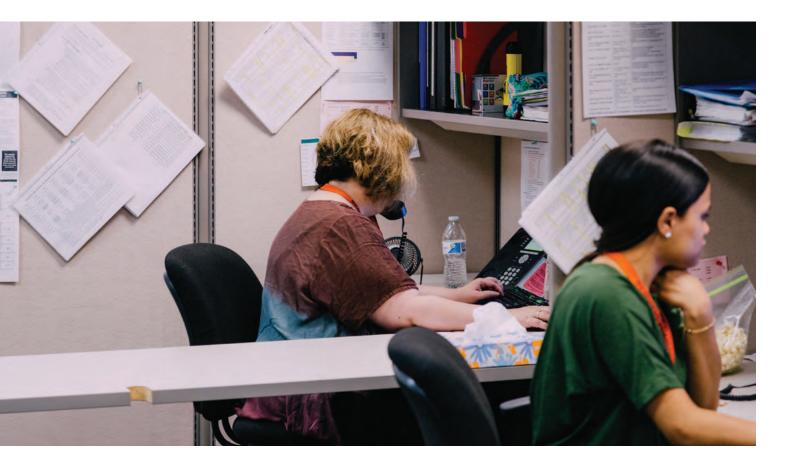
ABOUT FAMILY FIRST HEALTH

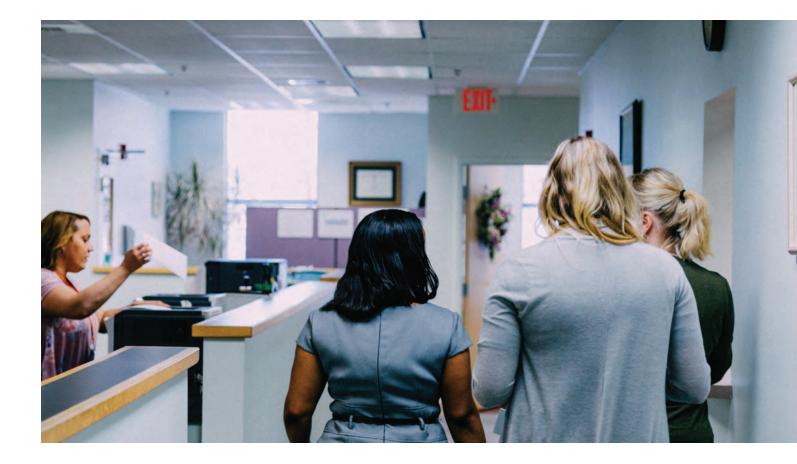
Family First Health is a Federally Qualified Health Center (FQHC) servicing York, Adams and Lancaster counties. The organization was started in 1970 to address the roots of illness among underserved communities in the region. To become an FQHC, an organization must qualify for enhanced reimbursement from Medicare and Medicaid, serve an underserved area or population, offer a sliding fee scale and meet other requirements.⁹

Today, FFH offers medical, dental and social services at six locations across central Pennsylvania. The organization has decades of experience in treating conditions and people too often forgotten by modern medicine with uncommon thoroughness and effectiveness. One program, the Caring Together program, is a partnership with a local health system that has improved the lives of HIV patients in the region and offers free walkin testing to anyone over the age of 13. FFH also offers the Nurse Family Partnership, an evidence-based home visiting program which provides a registered nurse to first-time, at-risk mothers prenatally until a child turns two years old. The dental program at FFH is a constant presence in local

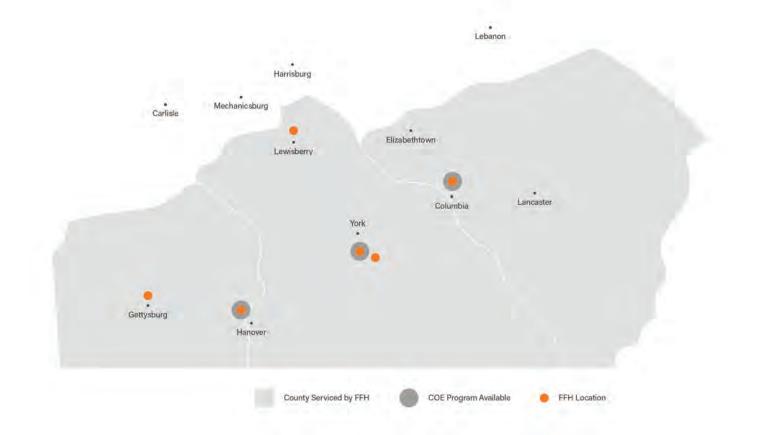
schools through mobile clinics for exams and X-rays. FFH is also working to improve access to behavioral health services using its Collaborative Care model, one of the cornerstones of the substance use program.

Family First Health's history and role in the community uniquely poised it to pioneer the challenge of treating substance use in the context of primary care and piloting the statefunded COE program, resulting in a year of enormous growth and learning this new way of treating and thinking about substance use.





MAP OF FFH LOCATIONS



THE FFH MODEL

The FFH Model offers a different approach to substance use treatment, building on the successful aspects of traditional treatment and adding new elements. MAT is emerging as the gold standard of treatment for opioid addiction in nearly all recently conducted clinical studies. Studies by the National Institutes of Health in 2009 and 2011 both suggest MAT may be the most effective tool available to combat the current opioid crisis, with the 2011 study finding that:

"Results showed that approximately 49% of participants reduced prescription painkiller abuse during extended (at least 12 week) Suboxone treatment. This success rate dropped to 8.6% once Suboxone was discontinued. Reductions in prescription painkiller abuse were seen regardless of whether or not the patient reported suffering chronic pain, and participants who received intensive addiction counseling did not show better outcomes when compared to those who did not receive this additional counseling."¹⁰

This suggests three things: 1) MAT has an impact; 2) therapeutic treatments we've been relying on for decades aren't always effective; and 3) tapering a patient off MAT without a plan for what comes next increases the risk for relapse. Yet, despite the clinical success, the medical community has been slow to adopt MAT. In a study of 2,500 primary care providers, electronic medical records provider Athena found that prescriptions for MAT have increased only slightly since 2014 and the share of providers writing prescriptions has barely budged.¹¹ A larger study from Blue Cross Blue Shield found that "the 65% rate of increase in the use of MATs does not match the 493% rate of increase in opioid-use disorder diagnoses from 2010 through 2016.12 States that have experienced the



greatest growth in the use of MATs are not necessarily the areas most impacted by opioid-use disorders."

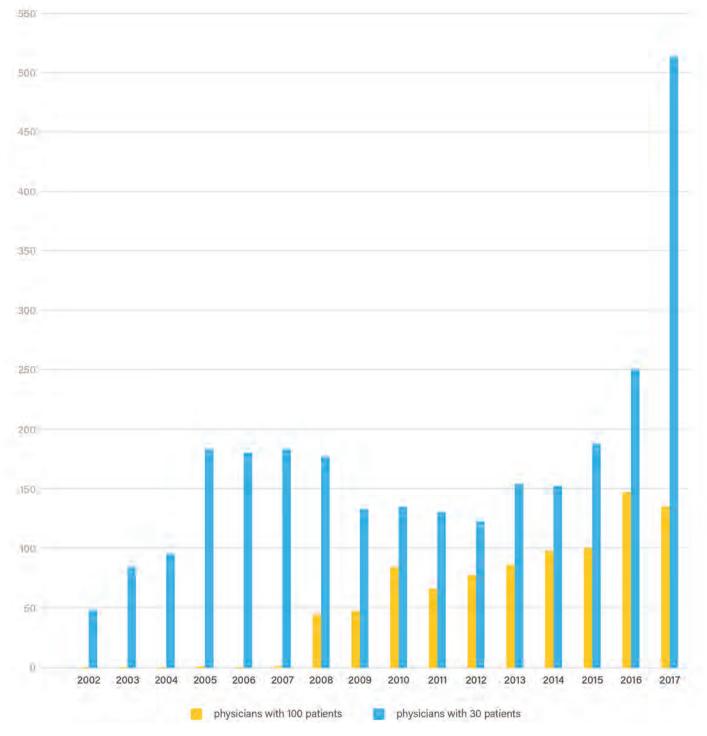
This is an especially startling finding given that Blue Cross Blue Shield was studying only its private-pay patients, overall a more affluent population with better access to healthcare.

In Pennsylvania, there is good news and bad news. The good: the number of providers prescribing buprenorphine spiked encouragingly in 2017. The Substance Abuse and Mental Health Services Administration (SAMHSA) is the body that waivers providers to "dispense or prescribe specifically approved Schedule III, IV, and V narcotic medications (medications that have a lower risk for abuse, like buprenorphine) in settings other than an opioid treatment program (OTP) such as a methadone clinic." After slow growth from 2002 to 2016, the number of prescribers nearly doubled in 2017. The bad: there are roughly 38,000 physicians practicing in Pennsylvania,13 and even after that jump, only 647 of them are waivered to prescribe.14

There are many possible explanations for this. First, there are some people in the recovery community who look at MAT as replacing one drug with another.

At an organizational level, this has started to change. The Hazelden Betty Ford Foundation began offering MAT in 2012 after previously being opposed. Now, opposition is found in more subtle ways. One patient who recently reached a year of sobriety in the FFH program told us that she was not allowed to get the corresponding Narcotics Anonymous pin because she was on Suboxone. Briefly peruse memes and commentary in recoveryfocused social media forums, and you'll find a brawl raging about whether patients using MAT are truly sober.

PRESCRIBERS IN PENNSYLVANIA

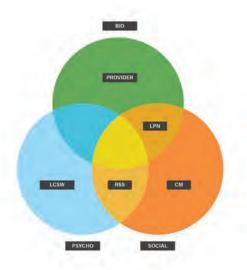


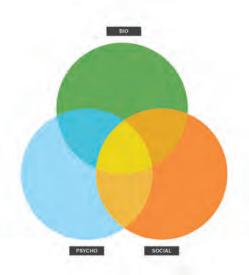
www.samhsa.gov/medication-assisted-treatment/physician-programdata/certified-physicians?field_bup_us_state_code_value=PA.

FFH PATIENT CENTRIC TREATMENT MODEL

In the FFH Model, the patient is surrounded by a support team that focuses in different and sometimes multiple spheres of the patient's recovery.







Even at the federal level, MAT is a hot-button topic. Former Secretary of Health & Human Services Tom Price told the press in West Virginia that, "If we're just substituting one opioid for another, we're not moving the dial much."

Despite the success in reputable studies, many providers aren't sure where they fall on MAT. Some still feel maintenance medication is replacing one substance with another. This feeling is especially prevalent in those physicians who are drawn solely to faith-based, abstinencebased alternatives. Other primary care providers are reticent to jump into prescribing because reimbursement for many of the patients that require MAT is not commensurate with the amount of effort required. While the physician visit is reimbursed, interaction with a recovery support specialist (RSS), case manager (CM) or social worker is not. MAT also can create difficult logistical wrangling with insurance companies. There is a growing feeling in the medical community that those reasons simply aren't good enough. Boston physician Julian Mitten recently wrote in STAT that, "It's akin to a primary care provider not treating a patient with diabetes because the doctor isn't familiar with insulin or can't prescribe a lifesaving heart medication."

Some providers also fear that by beginning to prescribe, they will change the dynamic of their practices. This fear is rooted in previous experiences with chronic pain patients and the impact they can have on a primary care practice. That said, MAT programs that have found fertile ground around the country continue to show results, and there are many advantages to treating addiction in primary care.

"I think this is ideal in a primary care setting. I just do. Because of relationships," York Opioid Collaborative Executive Director Dr. Matt Howie told us in a February 2017 conversation. "Treatment often has a time-limited element because of funding. When you have a timelimited element, there is only so much you can invest in that relationship before your 30 days is up or your 90 days is up. No one wants to pay for indefinite treatment. They just don't. Whereas they recognize at some level, that primary medical care is an important part of how we take care of people. Pulling this into that, it just becomes another one of those pieces."

The FFH Model is based partially on the Boston Medical Center Office Based Addiction Treatment (OBAT) model, sometimes known as the Massachusetts Model. The model is focused on primary care and relies on empowered nurse managers who work hand-in-hand with prescribing physicians.¹⁵ The FFH model expands the care team, surrounding the patient with medical, behavioral, recovery and logistical support.

"(In primary care) we can really connect with the patients in a different way," Cosgrove-Findley said. "I say that because I (worked in) the outpatient world. I did the inpatient world both in drug and alcohol and in behavioral health. It's a longitudinal direction we can have with our patients. We can really follow our patients in their life; I like to say through the path of recovery because each path is different. In primary care, we get to see people over their lifespan. That's very different than what's out there."

In the FFH Model, the care team consists of:

Provider

To oversee the medical and behavioral health needs of the patient inclusive of MAT, such as buprenorphine and naltrexone

Case Manager

To help the patient navigate the complex system of resources available to meet his or her behavioral health needs (i.e., drug and alcohol counseling, psychiatry) and physical needs (i.e., housing, food, clothing, employment, transportation)

Recovery Support Specialist To create an individualized recovery plan with the patient, coach and provide a source of accountability from a person also in recovery

Licensed Clinical Social Worker To provide assistance with referrals to outpatient providers, coordinate a patient's mental health services, teach coping skills and offer focused interventions in times of crisis or while awaiting connection with community behavioral health resources

MAT LPN

To assist the provider and patient with the prior authorization process, meet quality metrics, provide subspecialty care coordination and perorm direct patient care tasks inherent in a primary care practice including administration of medication

The team structure was created to support the biological, psychological and social needs of the patient. Team members are expected to interact frequently with patients, with the goal being of at least one touch a week for most patients. Touches can happen via text exchanges, phone calls or in-person interactions. Spend any time with team members involved in direct patient care, and you'll get used to being interrupted by phone calls and text messages. Recovery support specialists often engage patients outside of a clinical setting in the community.

Providers in the program prescribe both buprenorphine (i.e., Suboxone, Subutex) and naltrexone (i.e., Vivitrol, Revia) to patients for whom the medication is appropriate. Not every patient in the program is using MAT. Buprenorphine is a partial opioid agonist that suppresses symptoms of opioid withdrawal and blocks the impact of other opioids. It is a partial agonist because it activates the same receptors in the brain that respond to prescription opioids or heroin, but only partially so. Unlike methadone, buprenorphine can be prescribed, not only administered in a clinical setting. Methadone is also a full agonist. Buprenorphine can be prescribed a maximum of 30 days at a time, and to prescribe, physicians must go through an eight-hour training course, and mid-level practitioners must complete a 24-hour training.

Vivitrol, an extended-release version of naltrexone, is an option that has become more prominent recently. It is administered via a monthly injection. There had been skepticism in the medical community about the drug because of the intensity of the marketing behind it, but a recent study-the first of its kind-reinforces FFH's belief in Vivitrol's efficacy.16 The study also showed that getting patients into a Vivitrol regimen is challenging, because it requires roughly seven substance-free days for initiation. Of the 256 patients being treated, 34% are on Vivitrol, 38% on buprenorphine, 8% on oral naltrexone and the remaining 20% are not receiving MAT at the end of 2017.

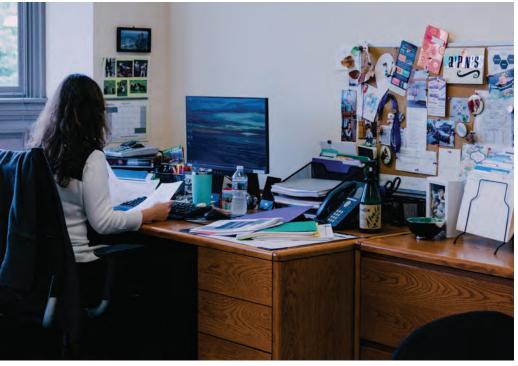
Though MAT is an integral part of the FFH Model, it is not required for continued participation in the program. Even after a full taper or total abstinence attained during an inpatient stay, patients continue to work with their care team on achieving their goals for recovery and continued primary care through FFH.

The model is different than many other treatment options for a variety of reasons. Most importantly, it takes full advantage of the shift in venue for treatment to primary care by taking a long-term view of recovery. It treats addiction like any other chronic disease state, understanding that patients will progress and regress and that treatment should be adjusted accordingly.

The Program Goals

The goal of the FFH Model is to treat substance use disorders by continuously engaging patients through high-touch strategies that consider all aspects of a patient's life and health.





The Core Principles

The FFH Model has coalesced around a core set of principles that guide its day-to-day operations. These beliefs emerged over time; they were not chiseled onto a tablet from day one. Discussions with team members throughout the year with Benjamin & Bond—the healthcare innovation company contracted to follow the progress of the program and produce this guidebook—surfaced these concepts that continue to evolve as the program scales and grows.

Primary care is an effective setting for the treatment of addiction.

Because treatment is a lifelong process, primary care is the appropriate place for a patient to seek treatment. The same way that a person with high blood pressure or diabetes would rely on a primary care provider to coordinate his or her care, so too should a patient suffering from opioid addiction. Treatment may—and likely will—require partnership with other providers. It is the responsibility of the primary care team to refer the patient to the necessary psychological, psychiatric or specialty services to augment care. It is also the responsibility of the primary care practice to be a central data repository and constantly monitor the progress of the patient.

Addiction is a chronic, relapsing, remitting disease.

Addiction is officially designated as a disease by the American Medical Association and nearly all other industry organizations. The American Society of Addiction Medicine defines addiction thusly: "Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors."¹⁷ The word chronic implies that the disease cannot be cured, but can be managed. FFH believes that treatment is a lifelong activity requiring different degrees of intensity depending on the acuity of symptoms.

Harm reduction is the most appropriate approach for treatment in a medical setting.

Patients will enter the program in vastly different life circumstances and acuities. For some patients, preventing an overdose—or another overdose-until they can be stabilized is success. For others, a reduction in use is an appropriate short-term goal. Total abstinence is ultimately the goal for most patients but is a poor stand-alone measure of programmatic or personal success. If a patient is continuing to engage, the practice and patient have the opportunity to improve the circumstances of the patient's life. A harm reduction model is consistent with primary care practice and treatment of chronic disease.

Recovery is an incremental process that often includes relapse.

A patient relapsing does not mean that a patient isn't "ready" for treatment. All individuals with substance use disorders who continue to engage with the program are ready, and even those who fall away often return, if diligently followed.

McLellan AT, et al., 2000 found that relapse rates for addiction track closely to those of other chronic diseases, stating, "Outcome studies indicate that 30% to 50% of adult patients with type 1 diabetes, and approximately 50% to 70% of adult patients with hypertension or asthma experience recurrence of symptoms each year to the point where they require additional medical care to reestablish symptom remission."¹⁸

A relapse or multiple relapses are not grounds to discharge patients from treatment, though habitual relapses may call for a change in methods. Many patients in care will relapse, and by creating an environment of dignity for patients and openly discussing successes and failures, the FFH Model builds valuable, lasting relationships.

Treatment cannot be effective unless it addresses the social determinants of health.

In the United States, the lower a person's income, the more likely he or she is to suffer premature death. A 2011 study found that nearly a third of annual deaths in the United States can be attributed to social factors like poverty, education, racial segregation and others.¹⁹

FFH believes that factors including, but not limited to, housing, home environment, food, transportation, physical safety, employment, child care, education, insurance status and family/social relationships play a major role in the treatment of addiction for many patients. Stabilization of a patient's recovery frequently requires work to be done in one or more of these areas, and FFH believes it is important for the program to proactively support patients in making these changes. This is an extremely time- and energyintensive process which requires a lot of program employees.

FFH's CMs & RSSs are well-versed in working with support services available in the local community. They assist patients in finding tangible resources for food, clothing and shelter while empowering patients to make connections leading to employment, schooling and housing.

Every patient's recovery is different.

Different paths of recovery work better for different individuals. FFH believes that behavioral health is a vital component of successful recovery and supports patients in finding the type of treatment that resonates with them. Some FFH RSSs have had success in 12-step or faith-based programs; however, while they will discuss the strengths of those programs with patients, they do not mandate participating in any specific style of program. FFH believes in a strength-based approach to treatment. Every patient has something to contribute to his or her recovery, and the focus is placed not on what the team members do for the patient, but what they do together.

FFH also understands that different patients need different levels of care. If a patient is not finding success in outpatient MAT treatment, the staff works to get the patient into inpatient care for detox or rehab. When the patient leaves the inpatient setting, the care team picks up right where it left off, consolidating the gains made to continue the patient's care.

FFH Model Clinical Documentation

Throughout the year, FFH created and iterated a set of foundational documents that define procedures in the model. Generating consensus around such delicate subject matter took a significant amount of work, and these documents are provided in the Appendix in the hope that they might save time for others looking to do similar work.

Included in the Appendix, the reader will find:

- Program goals and key performance indicators. FFH has provided benchmarks where available.
- Roles and responsibilities descriptions for each of the positions on the team.
- The MAT agreement which patients sign when beginning treatment.
- A model for continued engagement and reengagement of patients, including medical objectives.

COE AT FFH

The Center of Excellence Program evolved from a significantly smaller federal grant that allowed Family First Health to ease itself into an entire new line of treatment. The model outlined above is the end product of a lot of speculative and exploratory work by a relatively small group of people including FFH CEO Jenny Englerth, eventual COE Medical Director Dr. Debra Bell, FFH VP of Integration & Business Development CarrieAnn Frolio and FFH Medical Director Dr. Asceline Go with input from a few others.

"We really had to define what we could do. Was there a role for medical providers? As we started understanding some of the more recent treatment options that were effective, or could be effective, that started shaping our role. At our core, we are a primary medical provider. We can't bypass that role for something else," Englerth said.

"We had to really understand what the core would be. We had to talk through a lot of fears and preconceived ideas of what that would look like. Would the family practice turn into a treatment center and that would be the only reason people would come to us? Would that deter other patients or young families from bringing their kids to our office?"

Before it even approached treating the opioid crisis locally, FFH took a step back and looked at whether or not it was contributing with its prescribing patterns. Drs. Go and Bell oversaw a complete reevaluation of opioid prescribing at FFH, beginning with more diligently monitoring the patterns of FFH medical providers and intervening through education and mentoring for those falling outside of the norm. (The organization already had a policy to only prescribe opioids to new patients after their first six months in the practice.) FFH leaders also came to the conclusion that the organization could not just offer treatment but also needed to begin formally screening for addiction in its current patient population.

In an interview in February 2017, Dr. Go talked about how the problem sneaked up on the local medical community. This problem wasn't new, but the scope had completely changed.

"As a provider, the pill-seeking just felt like more of a nuisance," she said. "For a time, it was merely a nuisance now we have young adults dying. Two months ago, in one weekend, I lost three patients. It evolved from a nuisance to an industry."









"We really need to work better together as a community and to break down silos of the treatment community vs. the medical community. For so long, those have been two separate entities, and we need to figure out how can we work together for the sake of the patient."

ANIKA JACKSON

COE Program Director

When designing a treatment program, FFH leadership worked through a lot of the same concerns shared by practices around the country. There were worries that the sheer volume of people needing help in the region would overwhelm the locations that added a MAT program. Further, there was concern that adding the program would make it harder for FFH to maintain the core mission of the organization in primary care. There were also logistical issues: How to screen the patients? How to provide all the other services that they need? FFH stepped into the fray with the intention of purely being a prescriber, but realized quickly that was totally inadequate. In its infancy, the program was basically a two-woman operation, with Dr. Bell prescribing and Cosgrove-Findley serving as program manager, case manager, recovery support specialist, social worker and utility resource. To say Bell was prescribing is something of a misnomer. She spent a substantial amount of time in exam rooms with patients talking and working on the underlying causes of their addiction. Bell's goal was to build a program that looked at addiction as one factor in a patient's physical and psychological wellbeing as opposed to the be-all end-all.

"I've been going to different (recovery) places for 20 years, and this is the best place that I've been. They actually care about you," a patient told us early in the year. "It's Erin and Dr. Bell. They are just good people, and they saved my life. You can see people at face value, and you know that they are in it for the right reasons."

Bell's deep engagement posed challenges—not just because she occasionally spent afternoons hungry after giving her lunch to patients who were struggling to access food. Appointments stretched and patients spent more time at the office, which resulted in slower patient flow. Both Bell and Cosgrove-Findley admitted later that doing everything eventually made it hard to delegate tasks and cede some control to the people that eventually joined the team.

Habits became ingrained that eventually had to be reworked. The two developed such a rapport and worked so well together that their innate giveand-take replaced repeatable process.

These early days were very much about figuring things out, and Cosgrove-Findley said that when she looks back on the period of time, she finds it fundamental to the development of the program and the model. "A lot of the stuff that we have several staff members for now was just Dr. Bell and me. It was really neat to be able to come from there and be here now and look back at that. I don't think it's necessarily the most efficient way to do this kind of work, however it was what we had at the time," Cosgrove-Findley said. "For me to say what I learned? There's so much, but it really gave me a good perspective to be the program manager of this team and to put the pieces together. To have been in it and in every single role we do now built me as a person and a manager of my team."

The program likely would have stayed smaller and scrappier had the COE designation and grant from the state not given the organization new tools to handle some of these challenges. It catalyzed the development of the model and the program and made growth possible.

The COE Program was initiated by Pennsylvania Governor Tom Wolf in 2015 when he allocated \$15 million of behavioral health funding to jump-start programs at 20 organizations treating opioid addiction and bringing together treatment and primary care. Twentyfive more programs were chosen the following year, including FFH. Requirements for participation were minimal but gave FFH a starting point, requiring coordination of services and treatment of the patient's overall health. Director Anika Jackson was hired to oversee the growth of the program and immediately set about the task of hiring the necessary staff.

The hiring was fast and furious in an effort to keep up with demand. The energy and talents of the new staff helped the program scale quickly.

If the first quarter of 2017 was about ramp-up, the second quarter was about growing and growing pains. Throwing a group of people together and asking them to coalesce on the fly is a challenge.

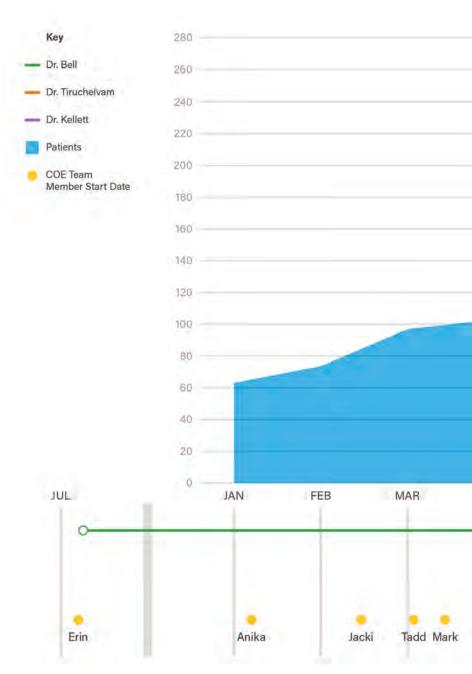
"I think that my stress has become less about the patients and making sure the patients get what they need because now I have this team to do it," Cosgrove-Findley said in May. "Now, it's how do I make sure the staff work well together and cultivate the culture that we are looking to cultivate."

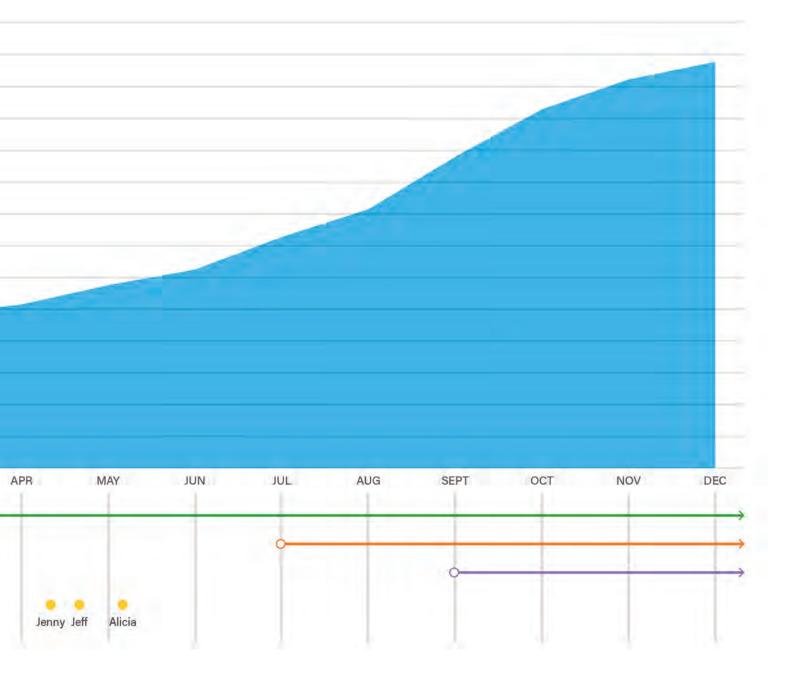
There was a significant amount of philosophical alignment to be accomplished and role definition to be worked through, but as the summer progressed, staff became more and more positive about the direction of the program. After initially only seeing patients two days a week at the Hanover location, FFH began seeing COE patients at its George Street location in York on an extremely limited basis in February. It also added another provider in Dr. Junia Tiruchelvam—known to staff and patients as Dr. Tiru—in July.

Getting the program up and running in the Columbia office took longer than anticipated, but Dr. Marie Kellett began seeing patients there in September.

By December 31, the opioid treatment program had grown from two women seeing 30-odd patients to a 12-person team caring for 255 total patients (206 in the COE) over the course of 1,411 medical appointments.

2017 PROGRAM GROWTH - PATIENTS AND HIRING





OBSERVATIONS

When the team from FFH started digging into the design of its program, they assumed they were missing something. There had to be more literature available than what they could find. As mentioned, the team looked very closely at the Massachusetts Model, but couldn't find any comprehensive research. A lot of details had to be determined as the program grew. The lack of research available shows the achievement of FFH in working with a sizable patient population frequently in a primary care setting.

As part of its work on the project, Benjamin & Bond interviewed each member of the COE team at least once a month over the course of a six-month period, tracking program development, successes, failures and learnings.

In addition to the scheduled interviews, Benjamin & Bond spent a significant amount of time in three FFH facilities, watching, chatting with staff and interacting with patients. We observed provider appointments and meetings between patients and case managers to understand program dynamics and how patients were responding.

Before throwing ourselves into the environment of FFH, we conducted

a thorough study of trends and advancements in addiction treatment at the local and national levels. The background we acquired and the knowledge we added continually over 12 months allowed us to engage with FFH on points that mattered and, hopefully, ask the difficult questions that needed to be asked. It was our goal to be an impartial outside observer that could help keep the program moving in the most productive direction possible.

Even from the relative detachment of our position, the day-to-day operations of a program like this one are exhausting. One naturally finds him or herself rooting for patients and admiring the work of the staff that supports them. We, like the members of the COE team, have grappled with some of the biggest philosophical issues that swirl around this work. There is considerable ambiguity in this area of medicine. Providers need to be comfortable working through it with members of their teams. Though their experience is by no means universal, FFH provides a jumping off point. We learned a lot over the course of the last 12 months and have compiled the most important themes into what follows.













Integrating recovery into primary care creates logistical challenges.

As Englerth said in her December 2017 interview, there were some fears about integrating a treatment program into the primary care mechanism. For the most part, these fears were unfounded or have been allayed. Many of the "problems" that the program has created are ones endemic to operating in a community health center setting. There isn't enough physical space, there is too much to do and the resources are limited. Substance use patients have not proven to be disruptive to practices in any meaningful way, but they do bring unique challenges.

"Going into this, the initial impression is that a substance-dependant patient is very hard to work with. I'm not going to fully deny that, but I also know it's been much more satisfying than I thought it was going to be because you can see people change," Bell said.

There have been patients in the program who have attempted to falsify their urinalysis tests. One patient was trying to teach others how to do it. Another attempted to use his niece's urine for his urinalysis.

"I've heard stories that people did this but I've never seen it first-hand," said Jaclyn Calp, the program LPN/ MAT nurse, in a monthly interview.

"The first fake urine that I caught, I expected it, but it blew me away to a point. 'You really just tried to fool us with that?' It caught me off guard. It just made me think harder and be a little more detail-oriented on these things. People are going to try to run stuff under our noses."

As with any medical practice, there is attention given to the no-show rate of patients. FFH defines any missed appointment with no advance notice as a no-show, and COE appointments had a rate of 19% in 2017. In addition, 15.4% of appointments were rescheduled. As a point of comparison, FFH's overall no show rate for the last six months was 12.33%. Patient noshows are attributable to a number of factors: weather, transportation, employment, lack of a phone, etc. Part of the role of the case manager is to assist with breaking down these barriers to attending appointments.

The more common no-shows occur at the patient's initial intake visit. This is particularly challenging as the need for intervention is great.

Arguably the biggest logistical concern for many regulators and public health advocates about the efficacy of buprenorphine is the potential for diversion. It's a challenge and something to consider. FFH does random medication counts and has a strict policy about no longer prescribing to patients who are believed to be diverting, but some team members feel counts should be done more frequently.

There is the public perception that the street market for buprenorphine is driven by people looking to "get high." We saw many more cases of patients entering the program recounting stories of using streetpurchased Suboxone (running as high as \$25 a strip) to try to become abstinent from illicit substances on their own. We also met people in the community who, when prompted, talked about how they were quietly sharing a prescription with a loved one without formally entering treatment. For patients who find themselves in dire straights and either continue to use opioids or have self-tapered to a lower daily dose of buprenorphine, selling their unused medication is an obvious temptation. This creates a clear incentive to find ways to falsify a urinalysis test.

"People will take one strip a day and supplement their income," RSS Mark McCullough said. "Then you have people that use for half a week and start taking the Suboxone when they know they are going to have to go in for the drug test. I've seen it happen where people's lives are falling apart, but for some reason during the appointment they are passing their drug test."

Ultimately, most of the patients in the program are wellintentioned and determined to move forward in their recovery.

"I've had people come to me and be like, 'Amanda, can I get some Sub no," patient Amanda Leese said. "I do a lot of work for this program, and I am not giving my s**t away for free. No. You don't do the work. I had someone ask me for my pee one time. No. You aren't getting that either. You can't even put a monetary value on my urine, because I worked really hard to make sure that it's clean."

There were little quibbles here and there. Nurses in one facility complaining about a busload of patients from a recovery house smoking cigarettes around the front door of the facility and worries about inappropriate conversations between patients in the waiting



"Going into this, the initial impression is that a substance dependent patient is very hard to work with. I'm not going to fully deny that, but I also know it's been much more satisfying than I thought it was going to be because you can see people change."

DR. DEBRA BELL COE Medical Director

room. These are issues that are not unique to this patient population. These issues can and have arisen with other patients unrelated to the substance use program as well.

PROGRAM IMPACT

For the most part, patients in the program were no different than any other chronic disease patient. All chronic disease patients present challenges for medical practices,



largely because they require longer visits. From the beginning, FFH scheduled substance use patients in blocks so the entire care team could be on site. Appointments still had a tendency to run long, and in the spring, the program switched to ghost scheduling.

In ghost scheduling, the patient appointment starts before the doctor is scheduled to see the patient. The patient is roomed 30 minutes ahead of schedule, giving the CM and MAT nurse time to do their work while preserving the amount of time a patient spends with the doctor. It's not a seismic change, but it protected specific amounts of time for each member of the team to do his or her work and improved patient flow.

Another adjustment was setting clear patient engagement expectations for members of the care team. This increased productive time throughout the course of the day and extended the services of the program as far as possible. Knowing that a portion of patient care days may unexpectedly become open appointments, it's important for staff to have a plan for that time. At FFH, when a patient needs to reschedule an appointment, the process is handled by CMs instead of front desk staff. This allows the CM to understand the circumstances that necessitated the reschedule.

Case managers and RSSs also had to become adept at dealing with challenging conversations and understanding how they fit into the day. We witnessed conversations that stretched half an hour or longer at various points in the year. McCullough said that every morning he scans his plan for the day to see which patients will likely take a significant chunk of his time and saves those conversations for longer, uninterrupted blocks.

In the coming year, Jackson said, the program will have to make some decisions about how it will handle its urinalysis tests. In the early part of the year, nearly all screenings were done point of care, but as the year progressed, more and more samples were sent for quantitative evaluation for increased reliability and precision. She said that it may reach the point where all samples are sent out. The program is also reevaluating frequency of testing once a patient is established in his or her recovery.

Measuring success is a challenge.

Imagine being put in charge of a struggling chain of grocery stores. On your first day, you sit down at your desk, arrange your things and begin to dig into the data—except there isn't any. The company business intelligence system is useless. It has either no data, incomplete data or numbers so fantastically out of touch with reality that you have to ignore them.

You go back to the board of directors and say that you can't possibly function in the dark. You ask them what goals you should strive to accomplish anyway. There's an uncomfortable silence and a shrug.

This is the challenge in assessing the effectiveness of addiction treatment programs and the reason benchmarking the success of new initiatives in primary care is nearly impossible.

Bluntly, there is no way to really know what percentage of patients with substance use disorder find success in recovery. There are myriad reasons why this is the case. First, the unfortunate separation of addiction treatment and general medicine that has existed largely since society began treating those with substance use disorders instead of throwing them in prison has limited the scope of data collection.

Following inpatient treatment, patients are discharged, and that's largely the end of the data trail. If these patients end up back in rehab, it's a new story, not a continuation of one. Facilities will do an assessment of a patient upon discharge (roughly 30 days) and then facilitate followup appointments or calls at 60 and 90 days. That's why clinical study generally considers success to be abstinence at the 90-day mark. Ninety days of abstinence is certainly significant for a patient previously in the throes of addiction, but there is little to suggest it has any significance in the long-term prospects of sobriety.

In developing the scoring system outlined later, FFH and Benjamin & Bond found patients in the panel who not only relapsed, but went into crisis and/or stopped engaging in treatment after achieving 90 days of sobriety during their time in the program.

Further muddying the waters, the majority of inpatient treatment centers are run by private companies that have not been mandated to publish outcomes data, and AA, still the largest entity in the recovery space, does not track membership. When it has released data, the organization has chosen to base its success rate only on the continued success of patients who "complete" the program, a task that takes about a year, and does not include those who drop out.

In 2007, an article in The New York Times stated, "Government studies also suggest that 80% of addicts will relapse after treatment. And experts in the field seem to agree that the success rate for rehab programs, most of which are based on the 12-step therapy created by AA, hovers somewhere between 30% at best, and below 10% at worst."²⁰

Some experts believe the real numbers are lower still.

"Peer reviewed studies peg the success rate of AA somewhere between five and 10%. About one of every 15 people who enter these programs is able to become and stay sober," Dr. Lance Dodes, a retired professor of psychiatric medicine at Harvard Medical School, told The Atlantic in 2014.²¹

Treating addiction in the primary care setting has the potential to change the landscape profoundly, because there's no "after" treatment. Primary care physicians continue to work with patients for years, sometimes decades, giving practices a chance to collect data with a thoroughness never before possible. It also provides

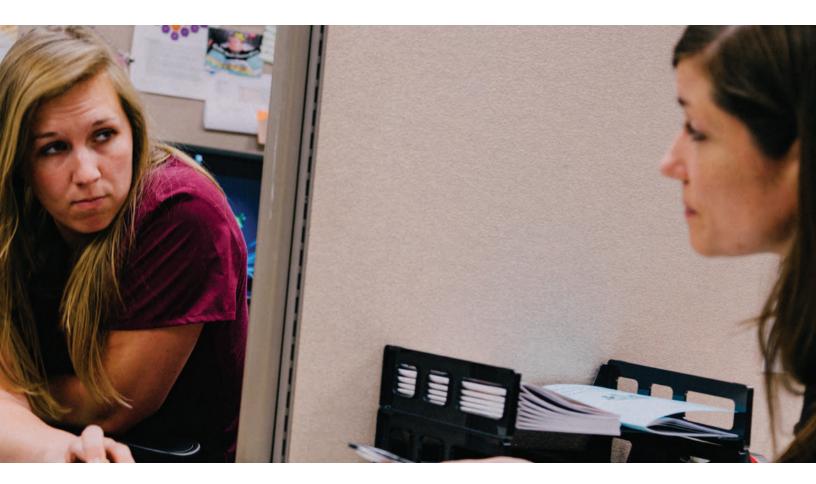


a longer runway to find success.

"It's about incremental change. It's not about taking the big step. If this person is at least willing to have a conversation with me, they are closer to being healthy than they were yesterday because yesterday they weren't even willing to talk to me," Dr. Bell said in May.

There's the desire to see patients doing well that can get in the way of a clear-eyed view of success. No one likes looking at low numbers, even if those numbers are totally in line with expectations or even better. The average conversion rate for ecommerce websites in the United States is in the neighborhood of 2.5%. If a company can improve theirs to 3%, that makes a huge difference at scale. In treatment, the stakes are obviously higher, and marginal improvement on success numbers that may look discouraging could mean saving lives.

The difference is, the ecommerce industry has an obsession with



collecting and tracking data. As treatment in a primary care setting becomes more prevalent, the opportunity to collect and track relevant data will increase.

PROGRAM IMPACT

Throughout the year, agreeing on a standard set of metrics for measurement was a constant drumbeat. The result is a programspecific set of key performance indicators included in the Appendix to this document. Program benchmarks for those numbers, where they are available, are also included.

In the "By the Numbers" section below, we have attempted to turn FFH's apples into oranges that can be compared to some of the most frequently cited studies in the space. This was challenging, because after patients stabilize in the FFH program, they are no longer seen weekly, and some of the most cited studies in the space cite results based on weekly measures. This ruled out using Sullivan, L. E., et al. (2004), though it is apparent that FFH patients had better outcomes than the patients in the study. The only study that lent itself to easy comparison was Soeffing, J. M., et al. (2009).

These studies were chosen as a point of comparison after the fact, not as operational targets throughout the year. We had hoped to use the first major study on the success of extended release naltrexone (XR-NTX), Lee, J. D., et al., (2017), "Comparative effectiveness of extended-release naltrexone..." as a point of comparison for FFH's data tracking Vivitrol effectiveness, but the design of the study made it impossible. It defines relapse as four consecutive weeks of use, and FFH does not track weekly data. Also, treatment was initiated in an inpatient setting, skewing the sample for comparison to FFH data. This study found XR-NTX harder to initiate but that it was equally effective as buprenorphine. FFH XR-NTX patients were more successful

on the whole than buprenorphine patients, but we hypothesize this is due to those patients being more stable before entering the program.

The main numbers FFH tracked continuously to gauge performance included number of touches per patient, patient engagement and number of patients enrolled. In exit interviews, team members almost uniformly stated that they viewed success as ongoing patient engagement. Even so, the team understood the need for having a common language to discuss patient status and assess progress. This led to the creation of the data tracking system outlined in detail below and plans for more detailed tracking in 2018.

While "success" was not clearly defined when the program began, creating that definition was important for the staff, patients and program as a whole to work toward a common goal and recognize both setbacks and progress.

Touches are important, and programs must find a way to stay hightouch as they scale.

Patients at different places in their recovery obviously require a different amount and different style of outreach. Patients that are doing particularly well can be contacted less frequently over time. Simply catching up with these patients when they come in for a medical visit may be enough to support their recovery from afar. With that in mind, the goal is for the program to touch each patient four times a month (basically once a week, on average, for patients new to the program.)

There's a tradeoff inherent here. More touches for more patients means less time that is allotted to any one patient. The balance between depth and breadth was an ongoing topic of discussion throughout the year.

"To be effective as RSS, you have to have time with an individual. The more time I spend trying to engage patients... the less time I get to devote to the patients that engage," McCullough said in October.

The work of the RSS is time-intensive. Not every patient in the program meaningfully engages with his or her RSS, but those who do raved about both McCullough and Scheerer.

"Mark is the rock. He's the one that is going to give me the advice. Maybe the same advice over and over until he breaks it through the cage in my brain," a patient told us. "Maybe just kind words. Telling me just about his experience. You don't find that at every place, but there should be someone at every place. Everyone that is treating addicts should have someone like Mark."

The change in this patient over the course of his first 12 months in the program has been remarkable. When he entered the program, his temper and lack of coping skills prevented him from maintaining his composure and constantly threatened his recovery. He has made incredible strides, is opioidfree, working and going to school at the same time. McCullough's caseload at the end of the year was 137 patients now, and figuring out how to be just as effective as he was when he had 30 patients is a top-of-mind concern.

"What's the threshold? I have no idea. What's too many? I don't know. I know it's aggressive right now," he said. "It's the time where you do get those calls back, when this person says, 'Hey, I've really been struggling, I know I've been avoiding your calls, but I appreciate them, and they mean something to me. I've never had this before.' Someone told me that yesterday. It's people like that that make it worth it."

That's one of the major benefits of a high-touch program, and one of the things that truly separates the FFH Model: the ability to re-engage patients who have slipped away from treatment. The focus on engagement has shown quantifiable results in this capacity. 13 percent of patients that drifted away from the program over the course of the year were reengaged by continued follow up.

Family First Health has learned over the year that it is hard to predict when treatment will click for a patient. One of the biggest learnings has been that if you continue to give people chances to engage, they have a chance to improve the circumstances of their lives and health.

"Where I've worked in the past, and also with personal experience, it's a lot of times left up to the individual to pursue his or her treatment. That can leave them feeling a level of detachment. What is different with us is our patients feel a connection with us," McCullough said. "It has been verbalized in that we are reaching out, and we are making those calls. This is something that I've been skeptical about in the past. Because of where I come from and what I've learned about recovery. However, I've seen people who were out there and lost, come back and get help just because of a follow-up call."

Scheerer mirrored McCullough's position, both the initial skepticism and eventually being won over. He said that he's never handled this many phone calls in his life, but that he is seeing results.

"It was about nine months into the program where we started seeing those people who we were working with who dropped off the radar at some point, and now all of the sudden, they are in some detox facility, and they are calling because they want to be sure they can come see us," Dr. Bell said. "To me, that spoke volumes that we are doing something right because they are calling to see us, and we will support them and receive them back and take care of them."

The State of Pennsylvania requires reporting on touchpoints for its ongoing assessment of Centers of Excellence, and Jackson thinks that if the program maintains a high degree of touch, it will reflect itself in success for both patients that require intense services and those who need less.

"The most important metric to me is number of patients that are engaged in care. A patient who has been in the program for a year and is doing well. I can think of one patient right now who is coming to mind, who through the course of this program has gotten a job, really started taking care of some of the health issues that were really plaguing (him or her). Do we need to have as many touchpoints with that patient? Maybe; maybe not," she said. "I think the touchpoints are an indicator of how well we are staying connected with our patients and keeping them engaged. Is that the ultimate best indicator? I can't say for certain."

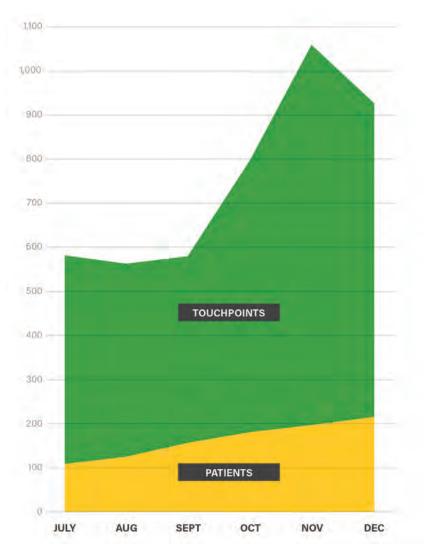
PROGRAM IMPACT

Success at scale requires that all members of the team focus on the areas of the plan where they can have the most impact. This team model is a shift from what is common for those working in primary care. The team has realized that not all patients need the same amount of time from each team member, and they must communicate and rely on one another.

"Tuesdays to me are a different kind of day. It's much more of a team approach," said Dr. Marie Kellett, lead physician, provider and MAT prescriber at the Columbia location. "As a physician, I sometimes work in a silo. I sometimes see the nurse that is rooming patients, but its often head to the grindstone, seeing patients, doing my notes and going home. Tuesdays have become much more of a collaboration. Communication. Talking. What do you think? I appreciate that." "I don't want to do what I'm doing without (the team). I couldn't do a good job without them reaching out and them trying to find out the details and spending the time. I can't do that. I have 20 minutes with each patient."

The program is not currently seeing COE or substance use patients at its Gettysburg office, though they had hoped to have the program up and running in the fall. Jackson mentioned that when they do, it may be the tipping point at which some of their protocols become unwieldy. CMs currently see every patient on their panel every appointment. That will likely change. As the program grew, the team began to deploy resources more tactically. For instance, the work of the RSS is extremely time-consuming

FALL 2017 PATIENT POPULATION VS MONTHLY TOUCHPOINTS



and intensive, and it's important to focus that effort on patients that truly need it in the moment.

The first person to feel pressure from the expanding patient panel was Dr. Bell, who found quickly that she simply couldn't spend as much time in exam rooms with the average patient.

"The new providers we are bringing in doing the work, they have a very clear demarcation of what they need to do, because I can trust that the rest of the team is taking care of this stuff," she said. "In primary care, you walk into that exam room with that patient and you are not just holding their physical health and prescribing a few meds. You are holding all of them and this gives you opportunity to really back down and say, 'I have a whole team here, I only have to do this piece. I am here to affirm the conversations and the work being done by the CM and my RSS. I don't have to do it all."

The team at FFH is so driven and patient-focused that at times, people initially tried to do too much. By the end of the year, nearly everyone stressed the importance of knowing and sticking to their respective roles. Cosgrove-Findley said that getting this balance right has been a huge part of proper team dynamics, and providers who set out to do this work need to be willing to trust the entire team they have available to assist them.

As the program continues to scale, FFH will look at adding additional team members, especially CM and RSS pairs. This need becomes more apparent as caseloads and touch points continue to increase. Other FFH programs operate at about 75 to 100 patients per CM. The Caring Together program did not start out with the level of staffing it has now, but grew over the years due to the nature of the work and demand of patients. Naturally, there will be points where the team bumps up against its capacity, but these moments can be allayed by trust and collaboration amongst the team.





Both patients and staff require clear role definition and communication amongst the team.

The model of the COE program is, by nature, human-effort intensive. Each patient in the program has most likely spoken to a medical receptionist, the program manager, his or her CM and RSS, the LPN/MAT nurse, potentially other nurses and the LCSW. It was difficult to keep staff from stepping on each other's toes in the developmental stages of the program as the lines between roles were somewhat blurry.

Patients in the program also have other advocates working with them in their recovery. Patients that are attending meetings in the community regularly, such as Narcotics or Alcoholics Anonymous, will have a sponsor. Patients engaged in outpatient behavioral health will have a therapist. Some patients will have a psychiatrist. Best-case scenario, patients will have an engaged support system in their network of family and friends. It's important for members of the care team to respect the influence that these other players have in the process and understand that every patient will use all of the resources at their disposal differently.

"It's been... difficult, because I came from a really regimented setting where everything was already set up, and we didn't have growing pains. It was a well-oiled machine," CM Jenny Smith said. "We did a lot of changing. One day we were doing it one way, and then we'd realize that doesn't work, but it was cool to be able to figure out what did work. You know, you go to a job and you say, 'This is really stupid, I don't know why we do it this way,' but that's just the way it is forever, and it's not changing. It was really cool to be able to help figure it out, even though it was tough."

Early on, Benjamin & Bond observed appointments in which the LPN/ MAT nurse, CM and provider all asked roughly the same set of questions. There were also times when some team members felt like others had encroached on their territory.

It's crucially important that CMs and RSSs be on the same page, because their roles bleed into one another so naturally. Patients will build a rapport with whomever they feel most comfortable, but it is the job of the care team to make sure that outreach is balanced between all team members and that the patient understands who they are talking to and for what purpose.

"It's hard relying on recovery specialists to do the follow-up; I've always been the one who does that (in previous positions)," a CM told us. "I struggle because at the end of the day, the patient needs that phone call. I struggle with not doing that myself."

The team is filled with individuals who don't like to sit still, and at times the ramp-up of patients probably left too many cooks in the kitchen. Communication was the biggest creator of frustration from the staff throughout the year, but also one of the places where the team grew the most.

PROGRAM IMPACT

The creation of the roles and responsibilities definitions listed in the Appendix and the implementation of regular team meetings helped improve communication and shortened appointments. This was essential. The roles and responsibilities were clarified through a series of team workshops where each staff member wrote down his or her impression of their job description, hung them all up and compared. Frolio played the role of "fixer," running workshops and formalizing documentation. Benjamin & Bond tried to communicate what it was hearing from staff to program leadership as well, providing an outside pair of eyes to identify discontentment and inefficiency.

The formalization of protocols for weekly clinical rounds was an important development as well. In the early days of the program, rounds felt haphazard and unfocused. Toward the end of the program's first year, rounds moved at a brisk pace and followed a set structure. First the group discussed notable successes, then patients in extreme distress. From there, the team discussed every patient with an appointment in the coming week at a guick clip, CMs leading the group through the panel. It closely resembled team rounding that we have observed in ICU settings.

Prioritization of tasks and followup has been an important point of discussion as the program grows. The less time everyone has, the more important it becomes for each team member to make the right call or send the right text message at the right time. Benjamin & Bond believes that effective case management is the key to efficiency and improved outcomes in modern medicine. In medical settings everywhere, CMs find themselves frequently understaffed and constantly playing "pin the tail on the donkey." That's because almost all EHRs are built around the traditional view of medicine as a series of acute incidents, even those used in primary care. Athena actually has an entirely different and unrelated module for the management of population health, as if the two ideas are unrelated.

Athena uses a system of "buckets" to manage tasks and pass responsibility back and forth among members of the care team. The system is functional, but not perfect. Each team member eventually developed his or her own workarounds and systems of task tracking and information sharing. The strengths and limitations of the technology systems already in place are a major consideration when thinking about implementation of any team-based program. If existing software doesn't support easy communication between team members, choosing an alternate solution from day one is advisable.

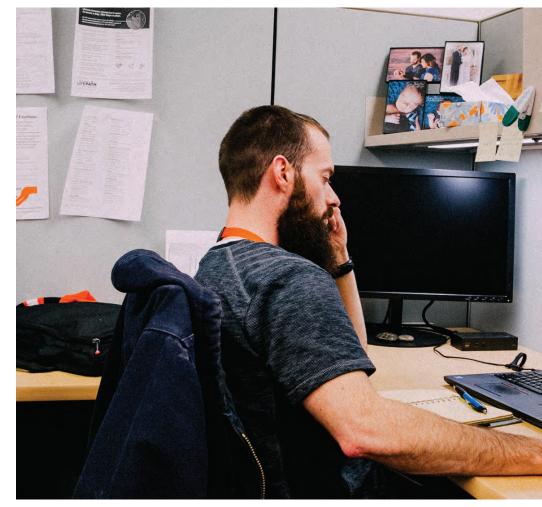
Benjamin & Bond advocated for the scoring system that follows in the "Measurement Model" section of the document to make a top-down view of the entire patient panel possible.

Effective treatment requires a balance of flexibility and rigidity. This is both an art and a science.

Many people working in the recovery community are in recovery themselves. One of the primary theories behind the Minnesota Model was the belief that persons with substance use disorders could help one another through open and honest communication. Nearly 80% of the therapy work done in the Minnesota Modelbased inpatient recovery is done in a group setting. Shared experience and accountability to a sponsor are at the very center of AA programs. It's clear that patients can learn a lot by working with someone who has already found success in recovery.

People who have had success in recovery have truly beaten the odds, and they've done it using particular tools. The dogma of the program with which they personally found success can become blinding.

"My pathway was AA and 12-steps, and it did work for me, and I believe it can work for a lot of other people. But if they aren't willing to do that, me beating my head against a wall trying to force them into something they don't want to do is not helpful to anybody. It frustrates me, and it frustrates them," RSS Jeffrey Scheerer said. "What I've learned over the time is if I come at a patient with, 'This is how you are going to do it,' it really makes that recovery gate narrow. The wider I can open that gate, the more people can come into it and get a taste of what recovery is. They might have what they want to do, and it might not work, but it's not



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JEFFERY SCHEERER Recovery Support Specialist



up to me to tell them it's not going to work. It's up to them to experience it. That's when they become open to other avenues they might not have been open to in the beginning."

A patient talked to us bluntly about how he really valued the support system that came with AA but found the steps to be hollow. He had been pushed in the 12-step direction by the courts and felt like he was beating his head against the wall. He found the focus on spirituality especially alienating.

"It feels like I'm really just talking to the ceiling. I have a hard time praying. It just feels funny," the patient shared.

The FFH Model is somewhat unique in that it has very little orthodoxy. Team members talked a lot about assessing the "Recovery Capital" that a patient brings into treatment; that can be defined as "the volume of internal and external assets that can be brought to bear to initiate and sustain recovery from alcohol and other drug problems."²²

Rather than a prescribed pathway to recovery the FFH Model is about "investing" that capital and adding to it through application of a toolkit of potentially relevant activities.

But treatment of addiction requires a certain baseline of structure. Traditional recovery solutions see noncompliance as a sign that a patient is not "ready" for treatment. Given the strongly held belief in the community that an individual with a substance use disorder cannot be reached until he or she is "ready," traditional programs have historically discharged people from treatment who were noncompliant.

There was an interesting dichotomy in how staff members viewed this kind of situation and what they thought the program was supposed to be.

The Center of Excellence operates in a condition of restricted resources; nearly every program at a community health center does. Financial constraints aside, the number of patients the program can handle is limited by the capacity of the support staff and the number of patients to which each provider is allowed to prescribe, according to SAMHSA regulations.

While it tries to process new patients as quickly as possible, FFH periodically has a waiting list to gain entry to the program, and unfortunately, that means that someone who is actively desirous

of help could go without. Given the rise of synthetic fentanyl and the potency of the drugs available on the street, the few days a patient has to wait could be deadly. For that reason, some team members felt that noncompliant patients or those making choices that called their commitment to recovery into question were keeping someone else out of the program.



"I feel like we don't hold a lot of our patients to their MAT agreements, and we should; we don't have any ground rules. I feel like sometimes our patients take advantage of that. All of our team has to enforce it and they are not," a team member said in August.

It is interesting, though, to consider how different this conversation is in addiction treatment than in, say, treatment of diabetes. A patient with diabetes would rarely be asked to sign a behavior agreement around treatment, and if one was, he or she wouldn't be considered for discharge after eating a dozen doughnuts. Instead, the patient's care team would work with him or her to understand why the current course of treatment was failing and make an adjustment. This might mean a combination of education, integrated behavioral health and other services. Family First Health has created a substance use treatment program that responds to setbacks in the same manner.

There are certain lines that cannot be crossed, of course. Patients

diverting medication are absolutely no longer eligible for prescriptions. Some team members felt like the program could be even more stringent on this point by doing more random film counts. Abusive or threatening behavior towards staff is grounds for dismissal as well. This has not been a problem with patients thus far.

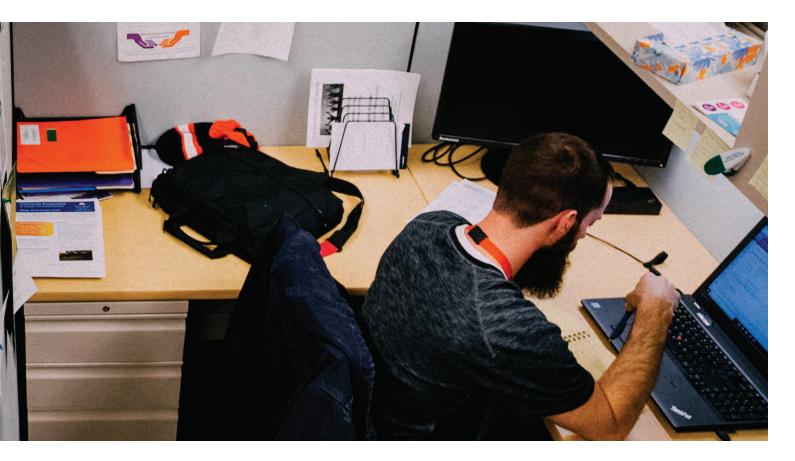
Finding the right line between unproductive rigidity and anythinggoes flexibility is vital to the success of any new program. The balance to achieve patient accountability to program expectations rather than absolute rigidity is an important distinction with FFH's program.

This is not to suggest that team members advocating for a more hardline approach were callous to the plight of patients who were noncompliant. They simply felt as though the goal of the program was to get as many people completely sober as possible and that the noncompliant patient's spot could be better used by someone more "ready" for treatment. The implicit goal of most abstinence model inpatient and outpatient programs is to get the highest number of people possible completely sober.

The goal of FFH's Center of Excellence is to focus on helping the patient who is currently in the program.

"There is that tension. There's always more people to be taken care of than you have resources," said Dr. Bell. "It's inherent in healthcare, and it's inherent in community health centers. But yet, you want to fully engage the person that is right in front of you. That's what it is in the can't be responsible for people who haven't come through our door yet."

Of course the more people the program helps the more valuable it will be, but the primary care setting creates a different dynamic. It is unethical and unconscionable for a provider to withhold treatment from a patient who is suffering from a disease. Providers in the program can and do stop prescribing Suboxone to patients who are not having success or who they



suspect of diversion, but they continue to explore other avenues of treatment.

"I think the biggest challenge is, this is primary care in a community health center—if not here, then where? We're not just gonna kick someone out. At times, there's this push and pull. It's this, 'We need to say no. There are other people that want it. I want to know: how do we look at it in a different way?" Cosgrove-Findley said in May.

PROGRAM IMPACT

At the beginning of the year, the COE program had almost no specific, agreed-upon policies and procedures and no clinical protocols. All standing FFH organizational policies for medical care, appointment scheduling, access, etc. were applied and generally followed. In the summer, it became apparent that making decisions about patients on the fly was counterproductive and created dissension. Cosgrove-Findley and Bell formalizing processes and defining where there was and was not wiggle room helped bring together the team around a common set of principles. It is so important that any organization considering an MAT program find philosophical alignment before entering the room of a patient who is struggling mightily with a substance-use disorder.

"In terms of where we are now, I'm pleased. I'm pleased at the number of patients who have come into care and who we have continued to keep engaged in care," Jackson said. "Are there aspects where I think we could be doing better? Certainly, after a year. Dr. Bell is working on some of the more tangible protocols from a clinical prescribing perspective as she's learned through the work this year."

This work resulted in the formalized documentation in the Appendix. Simply having definitive protocols written down improved communication amongst the team. So too did opening the channels of communication through clinical rounds and team meetings. Now that a comfort level has been established, team members feel empowered to share their opinions on the right course of action for a patient knowing that even if that opinion doesn't win the day, they have been heard.

"We want to keep (patients) here as long as we can, but if it's at the point where the medication or the program isn't working, we have to get real with ourselves and find what is going to work with the patient," Scheerer said. "The team getting its head around that has gotten a lot better. We have team meetings and rounds where we discuss this. The communication is huge. If we aren't on the same page, it causes a lot of frustration and confusion."

In order to be effective for their patients who were a part of the outside world, the program had to take into account the infinite factors that affected patients' recovery on a daily basis and provide flexibility to accommodate their lives while also providing enough structure for stability.

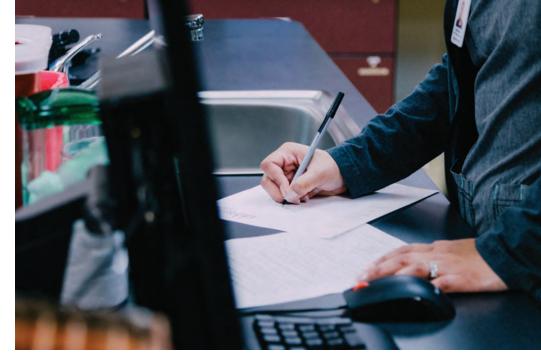
There is a constant balance between respecting boundaries and making a human connection.

All medical providers develop a necessary degree of detachment from the plight of their patients as a professional necessity and personal coping mechanism. When a provider becomes too personally involved in the circumstances of a patient, he or she risks thinking in the shortterm and doing what makes the patient happy or calm rather than what the patient truly needs.

RASE Project Director of Programs Shawn McNichol actually highlighted the potential pitfalls of the model in a February 2017 interview without even knowing it.

"It's freaking time-consumingit's so time-consuming. When you start talking to the (people running recovery programs) you are talking to people that are logic-based. They are going to tell you, 'Well, we need you to go to groups and then we need you to go to treatment and then we need you to go to these other groups and do all this other s**t and we will control you to get you better," she said. "We are so uncomfortable if you're not doing what you're supposed to be doing, because we only feel better if (you) are doing good. It's co-addiction. We have a community of co-addicts working with addicts. They want (those in treatment) to be alright because if we're alright, the community is alright. My response to that is, you need to get healthy because we've worn you down. You're just as sick as we are but you just don't know it."

In some ways, FFH's focus on personal connection, touchpoints and the social determinants of health makes it difficult to maintain distance and set boundaries. Throughout the middle of the year, some team members felt that certain patients were being given too long a rope





because they had become "favorites."

"Ethical and personal boundaries are important," a team member said at that time. "The way we refer to certain people is a tough area to discuss. We care about our patients, but the way we talk to them and about them needs to be appropriate."

Boundaries relate to contextualizing and responding to the choices good and bad—that patients make, but also the mental health of the team administering the program.

The end of 2017 was marked by a paradox that highlights the challenges of the work. Some especially

successful patients that started the program late in

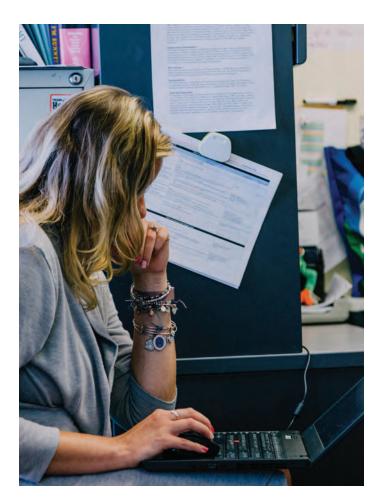
2016 have hit one year of sobriety. Other patients, who had initially struggled in treatment, have turned the corner and are having success in school or at work. But in rounds last week, the team discussed a patient whose girlfriend (who was also in recovery) overdosed and died; a patient who could only afford housing for her and her young daughter in a building with multiple convicted child sex offenders; and a patient who had witnessed the murder of a family member. Even if one is prepared for tough stories, the stories are still tough. The team was shaken by the death of a patient around the holidays who was unable to get his buprenorphine because of a problem with insurance.

"There are times that I come home, and I'm just exhausted," Smith said in December. "On a direct patient care day, you figure out of 15 people, let's say eight of them are having the worst day ever, and you are taking that on all day long. You are walking out of one room where someone is talking about a trauma they just experienced... It can be really draining. I need to find a good way to balance it a little bit better so it doesn't affect me as much."



"Rolling up your sleeves and getting into somebody's life and doing that work. I believe this is what it takes to get out there and be effective and save people's lives. Not only that, change people's lives, so they become responsible, productive members of society."

MARK MCCULLOUGH Recovery Support Specialist





It's about being a resource and a support without being a parent. Different members of the team clearly deal with this delicate balance in different ways. McCullough, the team member who talked about the importance of boundaries the most throughout the course of our year in the program, still said at the end of the day, the program won't work without staff members putting themselves out there, as long as it's done in a professional way.

"There are principles that you have to live by to walk that line and it's not easy, but at the same time, this is the work that people have been avoiding that I believe has the opioid epidemic where it is," he said. "Rolling up your sleeves and getting into somebody's life and doing that work. I believe this is what it takes to get out there and be effective and save people's lives. Not only that, change people's lives, so they become responsible, productive members of society." Bell believes that the difference between primary care and traditional treatment means that the nature of the relationships formed will naturally be fundamentally different.

"These are not just clients. These are not just patients, they become part of lives in a lot of ways. In the context of primary care, you walk life with people. By definition, that is a different thing than a treatment program in a standard sense where you are going to see patients for 90 or 120 days and say, 'Okay, great! You keep up the good work!" she said. "We're here. We're going to continue to do life with them. So in the midst of that, whenever there is a loss in their life-maybe that's not a loss or struggle in recovery, maybe that's a loss in another way-we support our team and say, 'It's okay to grieve that. It's okay to recognize that as a struggle and grieve with the patient. It's okay to get teared up."



PROGRAM IMPACT

Benjamin & Bond probed the topic of staff burnout throughout the course of the year and wondered how to keep the team healthy. Staff members all talked about the importance of having things that they can do to relax and recharge when they get home. When FFH onboards team members in the program, self care is discussed.

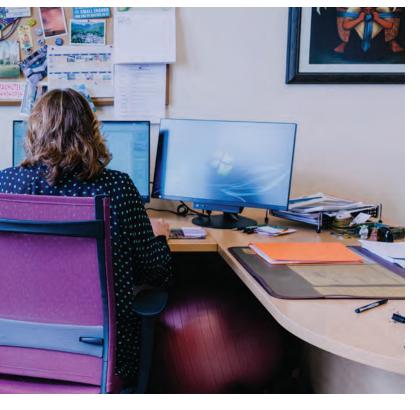
Family First Health offers a generous policy for paid time off, which includes personal, vacation and sick time. It also monitors use and encourages staff members to take the PTO that they have accrued. COE leadership also tries to limit the amount of time CMs and RSS-hourly positionsspend on the clock and interacting with patients outside of the office. That's obviously tough. If a patient calls in a moment of need, there's no chance that team members are going to shut them off the phone. Benjamin & Bond has internally kicked around ideas that would put an even bigger emphasis on self-care. Thoughts included either a shortened work week once a month or even a mandatory week off every quarter.

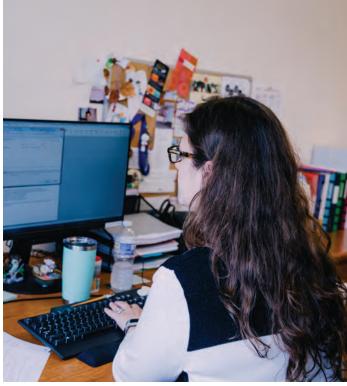
Members of the team said that the best way for them to prevent burnout was to prop each other up and have open and honest conversation about ups and downs. Improved communication amongst members of the team has become a method of selfcare. So has celebrating successes.

"In family medicine specifically, there's not much that I do that I'm going to see the results any time soon," said Dr. Kellett. "Sometimes you are starting a new medication for depression, and a month or two later, the patient is feeling great, and life is great. Most of the time, I'm treating your diabetes and your high blood pressure and your heart disease, and I'm just trying to get you to live longer and healthier, and I don't see any results. Or I'm treating a cold, and it's just a cold, and time is going to heal that whether I do anything or not. With the COE program, you are seeing results, and you are seeing them very quickly." Dr. Bell agreed.

"I've been surprised by how much of a difference this work can make in a very short amount of time. They are homeless, and they don't have food. Their teeth are rotted out. They don't have a job. They don't have anything. They have track marks on their arms, and initially, within a week, they're already able to engage me in a conversation they couldn't before," she said. "Four weeks in, they are looking good and bright-eyed. They were barely looking me in the face at first, but six months later, they are making eye contact. Holding their heads up. Working. Going to school. Managing their money. Having a place to live. Watching that transformation has been really cool."

The balance between personal connections and boundaries allows the team to create an element of trust with their patients that has been an important aspect of creating continuous patient engagement in the program while boundaries have allowed the team to stay professional and make judgments to aid in long-term recovery instead of short-term comfort.





The treatment community is frequently missing the mark on behavioral and mental health.

Family First Health believes wholeheartedly that treating the psychological factors inherent in substance use disorders is an important part of treatment. In fact, participation in some sort of outpatient therapy or counseling is required of all patients in the COE program. This is a state requirement for the program, but that edict aside, nearly every payer requires patients to be enrolled in counseling to receive MAT. Because measurement of success has traditionally been challenging, the treatment community hasn't always been asked to scientifically defend its methods. What might surprise many is that recent studies are inconclusive on how much counseling actually helps patients in MAT programs achieve better outcomes.

An analysis of existing literature published in the the American Journal of Psychiatry in 2017 compared eight studies on the subject.²³ Four found some benefit to behavioral intervention, and four found no benefit at all. The studies suggest that it is the intensity of intervention that matters more than the form. In their conclusion, the authors said:

"Regarding the question of whether behavioral interventions are ineffective in this population, the four studies finding no benefit from behavioral interventions are countered by an equal number of trials demonstrating the efficacy of behavioral interventions, particularly contingency management. This underscores the idea that interventions with a stronger evidence base, such as contingency management, may have an important role in buprenorphine maintenance treatment, and it suggests that the issue regarding the role of behavioral interventions is far from closed."

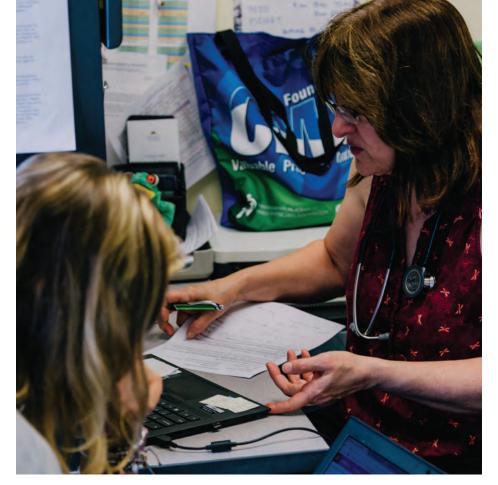
Contingency Management programs differ from traditional therapy in that they reward and incentivize positive behaviors in an attempt to build habits. Studies have shown that programs in which patients are offered vouchers that can be exchanged for restaurant gift certificates, cash or other rewards for each expected urine test are quite effective. These programs are comparatively rare, and most patients nationally are enrolled in more traditional individual or group therapy programs. Models for these programs vary.

Anecdotally, few of the patients with whom Benjamin & Bond worked with told us they found their therapy valuable. Many directly or indirectly told us it was something they did because it was expected of them.

It seems that the recovery community may be missing the mark with what kind of therapies patients actually require. Patients in the COE are required to receive a Level of Care Assessment from a licensed drug and alcohol counseling service. Once they have that assessment, most enter into drug and alcohol counseling, which is quite different than general behavioral health counseling.

Dual-diagnosis providers are licensed to treat patients who have both a substance use diagnosis and a general behavioral or mental health diagnosis.

"When facilities are not dual-diagnosis, there is a limited amount of work they can do, and you are certainly not going to do work on the trauma the way that the trauma needs to be worked on. We're not completely there yet, and it's because the system is saying, 'You need to do this.' In reality, why? Maybe this person really needs behavioral



health therapy. They need trauma therapy. But we say, you need to understand why you became addicted to drugs first," Cosgrove-Findley said.

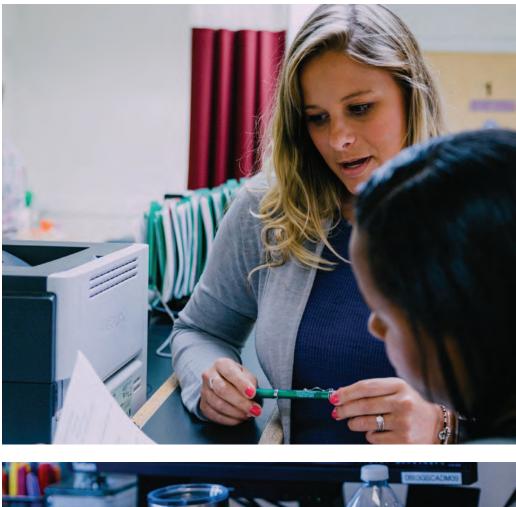
The majority of the patients with which we worked reported, even in initial conversations, some type of trauma in their background. As Dr. Bell pointed out to us, starting to openly use drugs at age 13 or 14 in a household with parents who encourage or enable use is actually a form of trauma. This was not an uncommon story to hear from patients.

Forty percent of COE patients have a mental health diagnosis of some description in addition to a substance use diagnosis. This is slightly above the national average of about 33%. Of course, capturing accurate data on mental health factors is extremely challenging due to stigma and shades of gray in diagnosis. Treating mental health in the context of primary care is another hot-button topic within the medical community.

Providers in the COE program felt that more than 40% of the patients they were seeing had deeper psychological issues that needed attention.

"When you talk about mental health supports for this work, that really falls into two buckets: there is the mental health support that is targeted towards drug and alcohol use and there is that targeted towards all the other mental health stuff," Dr. Bell said, "The other side is just the basic stuff that falls under dual-diagnosis. The depression, anxiety or worse-bipolar, schizophrenia and other issues, in particular trauma. That's where, I could say in our community—but I sense it's across the country-that's the miss. Does it mean we need more people doing the work? Well, yeah."

Dr. Bell pointed out that there's also a difference between a shortage and a shortage available to the community FFH serves.







Many of the most respected providers in the region who offer traditional mental health services do not accept medical assistance or don't have appointments available for publicpay patients for up to six months.

Family First Health has been quite progressive in offering these services to its medical patients, but it can only do so much. Patients in the COE program have access to FFH's internal Behavioral Health Consultant team, which works with patients to cultivate coping skills and problem solving to identify and resolve barriers and improve health through behavior activation or modification. Appointments in the program are 20 minutes, and while they can provide helpful strategies to many patients, they aren't the place to unpack serious trauma or diagnose

complex mental health disorders.

Family First Health providers do their best, even when put in difficult situations. Early recovery can be an extremely sensitive time to assess a patient's mental health, even for trained psychiatrists. Symptoms of withdrawal can often manifest themselves as mental health symptoms, and pharmacological intervention can be challenging. Unfortunately, getting every patient who should be in front of a psychiatrist in front of one is impossible due to the dynamics of the healthcare market.

"What I have found in Columbia is, I pretty much assume every patient there has undiagnosed, undertreated or poorly treated mental health or addiction... Pretty much every visit has underlying stuff, psychiatric and addiction-wise," Dr. Kellett said. "Out of 10 (mental health) cases, I'm handling my own seven or eight (times). Or higher. There are not great resources right now for psychiatry. A lot of times, it's me."

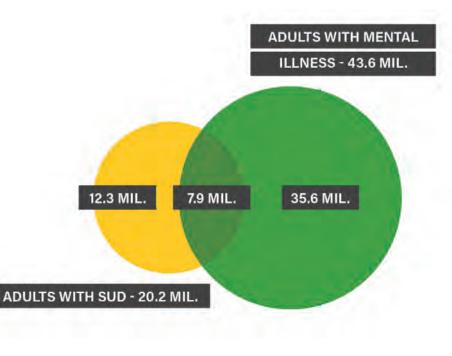
Dr. Kellett said that the only way you can tell whether mental health issues have created a substance use problem or a substance use problem has created mental health issues for an individual patient is to spend time with him or her. FFH is willing to invest the time, but without outside support, mental health diagnosis and pharmacological intervention is still provided by providers working outside of their area of expertise.

PROGRAM IMPACT

In the early part of the year, understanding when the program LCSW should assert him or herself



2014 SUBSTANCE USE DISORDERS AND MENTAL ILLNESS AMONG ADULTS AGED 18 OR OLDER



(https://www.samhsa.gov/data/sites/default/files/ NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf)

in care was a challenge. A lot of the tasks traditionally performed by a social worker are the responsibility of other team members in the FFH model. In the fall, a new team member filled that role and has grounded it as something of a behavioral and mental health air traffic controller.

"Our LCSW can provide brief interventions for patients who might at this point not feel comfortable with outpatient counseling to get them comfortable with the concept of talking with someone about the things that they are feeling. Brief intervention is a great way to get linked to outpatient counseling," Jackson said. "Then there's the element of actually linking the patients who are willing and helping them find a place that is suitable for them. Then there are those patients who show up to an appointment and are really in a bad place. Having someone who can, in that moment, go in and have a conversation to maybe deescalate where that patient is right now is important."

This has become a vital part of the FFH process. We talked to the team throughout the year about not becoming all things to all people and not duplicating services offered elsewhere in the community. There's a tendency to want to control every step involved in a patient's recovery, but it's simply not possible. In December, the team received great news when it found that a local psychiatric practice had agreed to make space on its schedule for a substantial number of FFH patients. This was the result of dogged legwork from Smith.

Ultimately, FFH is doing the best it can on this front with the resources it has at its disposal. With a more entrenched LCSW, FFH can start to direct patients to counseling services and models that are most appropriate for the individual patient. Clinical literature shows that the individual therapist is a major factor in success or failure of treatment. In an important 1994 study published in Addiction, researchers found that, "The main conclusions are that therapists show diverse rates of effectiveness, and that such differences appear independent of both therapists' professional background and of patient factors at the start of therapy."²⁴

The resources available are the resources available, and a major takeaway for those working in policy at the state and federal level is to assess the dearth of dual-diagnosis options available and consider how effective counseling for substance use extends beyond the boundaries of traditional drug and alcohol counseling.

The outpatient MAT program is one part of a larger recovery mechanism. Patients need to flow in and out without friction.

In addition to all of the work leadership does tuning the program, Jackson, Cosgrove-Findley, Dr. Bell and others are heavily involved in local organizations dealing with recovery. When Benjamin & Bond began working with FFH, members of the Benjamin & Bond team also became connected with the York Opioid Collaborative and an "access to care" work group run by collaborative head Dr. Matthew Howie. What we found was discouraging.

There are many avenues through which a person with a substance use disorder can feasibly enter treatment. Some go directly to outpatient programs like FFH. Others try to manage their own recovery and start with AA, NA or another support group. Others go directly to inpatient detox or rehab. Some people begin their recovery in jail. Some begin in an emergency department following an overdose. Others start after admitting to their addiction during an inpatient hospital stay for a related or unrelated malady.

For the system to be most functional, patients need to move from one entry point to the next step in their recovery quickly and easily. There are efforts happening locally to improve what is, frankly, a broken system. RASE Project runs a warm handoff program that meets with individuals who have overdosed in emergency departments and attempts to get them directly into treatment. This is a start, but there's a long way to go. To be a real asset to the community, an outpatient MAT program needs to be plugged into all of the other organizations in the orbit of recovery.

Patients in emergency departments who are ready to begin recovery can

be prescribed a very short regimen of Suboxone to hold them over until they get into an outpatient program, even by providers who have not completed their Suboxone certification. The local emergency departments neither write these prescriptions nor regularly contact FFH to get patients directly into treatment. They fear that if they started writing prescriptions they'd be overwhelmed with medication-seekers.

When it becomes apparent that outpatient treatment is not the appropriate level of care for a patient, the team at FFH works to find a detox or inpatient rehab bed for the patient. This can be a challenge, even given the connections FFH has at its disposal. Inpatient facilities are not required to update their bed availability in realtime, are frequently privately-held and report no data about patient mix, and have no true mechanism for waitlisting patients. For the most part, patients looking for placement without help from an entity like FFH simply have to keep calling every day hoping they get lucky.

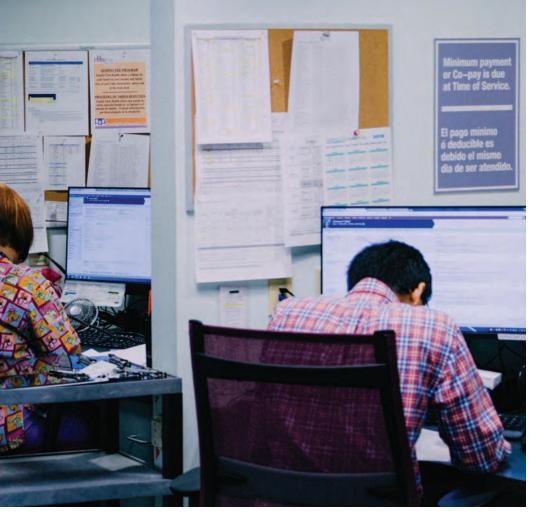
In late summer, Scheerer told Benjamin & Bond he felt good about getting a patient into inpatient treatment. He had called someone that he knew who had arranged for a bed. When asked how long a patient would have waited had they not had access to personal pathways, he said the wait could be up to a week, based on his previous experience.

Once a patient has entered care with FFH, that doesn't mean they have necessarily ended up at the appropriate level of care. Even if they have, there is a huge degree of coordination necessary to effectively treat a patient.

Unless release forms have been specifically signed on a patientby-patient basis, information from inpatient rehabs or outpatient therapy is often challenging to obtain. In the case of patients under the care of a psychiatrist, sometimes nothing other than a medication list is available. This makes it difficult for CMs and









RSSs—and by extension the provider—to do what's best for the patient.

"There's no flow of information because no one has ever asked for it," Dr. Howie said. "We're looking at how do you start moving upstream? How do you sort through how people are entering into the system and how can we intervene to get them in the right place?"

PROGRAM IMPACT

"We really need to work better together as a community and to break down silos of the treatment community vs. the medical community, because for so long, those have been two separate entities and figure out how can we work together for the sake of the patient," Jackson said.

The new relationship with the psychiatry practice mentioned above is an example of how FFH can begin to string together community resources in a more effective way. The FFH team tries to get data reciprocity agreements signed with the other providers treating patients whenever possible. If FFH and other programs like it can continue to show positive results in their work, it will give outpatient providers more of a voice at the collective table to influence the course of treatment. It constantly became apparent in our work that payment models and regulation are both built around traditional ideas of treatment.

Everyone working within the system must understand that patients need different things at different times. A seven-day gap between a resuscitation in the ED and admission into a treatment program may end in tragedy. This is why FFH returns to the chronic disease model. Effective treatment of chronic conditions requires both ongoing management and the wherewithal to handle acute incidents. It requires collaboration between generalists and specialists. There are times when treatment of substance use disorders becomes emergency medicine, and the system cannot afford to leave gaps in treatment.

Programs have to decide how to deal with marijuana.

In traditional abstinence models, substances are substances, and they should be strictly avoided. Except when they are not. Most AA members drink coffee, and about 59% smoke. Of that 59%, 78% smoke more than half a pack a day.²⁵ Some AA members won't take a Tylenol for a headache but will still smoke cigarettes. This is not a criticism of AA orthodoxy, merely an analogy for the way in which treatment programs need to consider their position on marijuana.

"Everybody smokes pot, and nobody wants to quit," Dr. Kellett said, generalizing slightly. "I don't know; can someone be substance-free but use marijuana and be okay? I know there's lots of people who have never used other stuff and they are okay with smoking marijuana for themselves for many, many years. Twenty, 30 years I hear sometimes. I don't know where the line is drawn."

Family First Health's prescribers take slightly different stances on marijuana, with Dr. Kellett being the most accepting, Dr. Tiru the most skeptical and Dr. Bell seemingly somewhere in between.

A patient who had chronic pain from an accident in her past talked to us about why she continues to smoke marijuana despite being sober of opioids for more than a year. She said that Dr. Tiru was disapproving and scolded her about it in every appointment, but that it helped her control her anxiety and pain.

"I'm taking a couple hits to go to sleep at night," she said. "They put me on Trazodone and Cymbalta; doesn't help me stay asleep, just puts me to sleep."

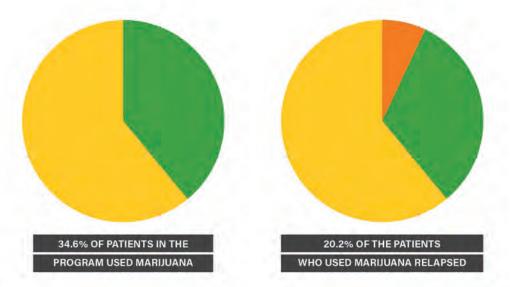
The patient is her disabled husband's primary caretaker. Her ability to work is severely limited by the injuries she suffered in her accident, and she needs a major surgery. She came into the program sober of opioids, having self-administered street-bought Suboxone. She is currently tapering off of the Suboxone. Is occasional marijuana use a threat to her hardwon recovery? It's difficult to say.

Exactly one-third of substance use patients at FFH tested positive for marijuana at some point in 2017.





MARIJUANA USAGE



PROGRAM IMPACT

When Benjamin & Bond was finetuning the scoring mechanism, we had conversations at length with Dr. Bell about how she viewed marijuana use, ultimately deciding that it was no more or less dangerous for patients in recovery than drinking. That is not to say that the societal risks are equivalent. One patient who made great progress in the program nearly lost public funding for his college classes due to ongoing marijuana use. Of course, patients on probation risk testing positive for marijuana if they smoke it. Marijuana is steadily being legalized around the country, and if at some point in the future it becomes legal to use in Pennsylvania, even the legal line between alcohol use and marijuana use will disappear.

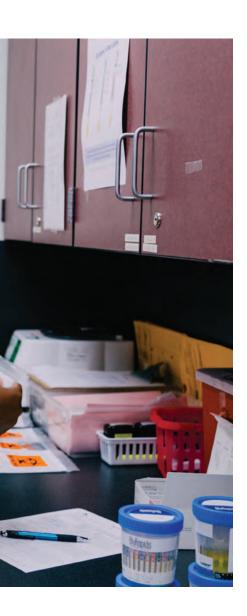
Ultimately, the question comes down, once again, to understanding how to measure success and the individual discretion and judgment of the provider. As an outside observer, it became apparent that the team members seemed to think that a stable patient who was smoking marijuana a few times a week was a success, but because of the cultural dominance of the abstinence model, they were hesitant to say it on the record.

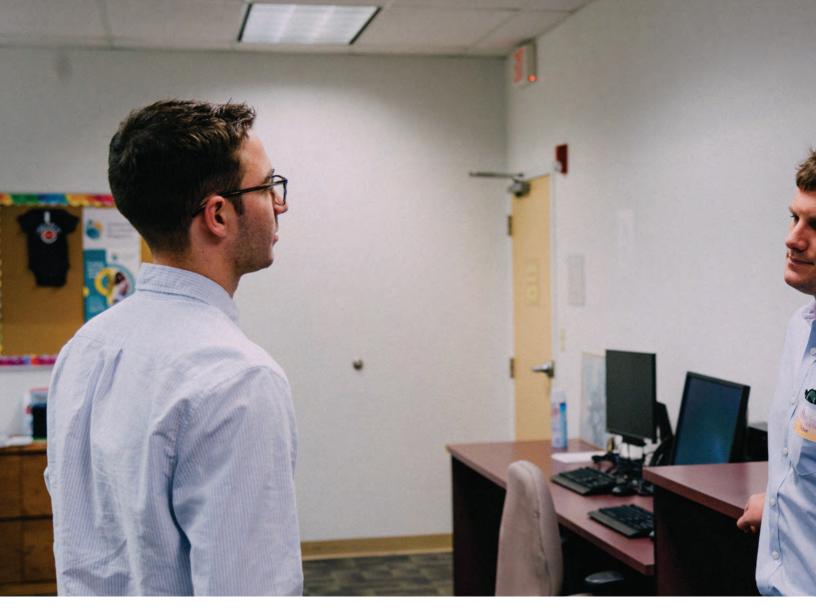
"Would I prefer for all these patients to have no marijuana and no other drugs and no alcohol? Yes. That's my preference. That's the way I live my life. Because when I do drink caffeine I can't sleep. That's success for me," Dr. Kellett said, "I don't know. I would prefer my patient limited their sugar, exercised every day and had a normal BMI. You take a diabetic who is still making bad choices and eating pumpkin pie, I'm still treating them as a patient."

There is very little clinical research available on the topic. Anecdotally, FFH patients who used marijuana were more likely to relapse with opioids than those who did not.

It's obviously not a perfect comparison due to the different ways in which addiction presents for different substances, but a study published in September of 2017 found that intentional marijuana use was effective in preventing relapse on crack cocaine.²⁶

While the public perception of marijuana shifts as it becomes medically acceptable and legally available in many states, its effects on recovery patients is still unknown. However, like cigarettes are prevalent in AA, marijuana seems to be common in opioid recovery; therefore, having a stance on its use in recovery is important.













BENJAMIN & BOND'S MEASUREMENT MODEL

From the beginning, it was apparent that defining success was important to the program. Also important was that the definition of "success" was unclear and therefore the progress and performance of the program as a whole were largely undefined. The idea for a holistic scoring system that would allow patient progress to be assessed and compared was discussed in a group workshop at the Benjamin & Bond offices in May.

From here, Benjamin & Bond began a thorough review of patient charts and available literature to begin constructing a model. By early November, the team had created a model but was faced with the daunting task of manually tracking data from every appointment for every patient for an entire year. In response, Benjamin & Bond created a prototype of a web application that would allow team members to enter data for the database to do all necessary calculation. It's important to stress that both the model and the system were experimental. They were pilots for better data collection within FFH's EHR.

The creation of the measurement model not only brought clarity to the definition of "success" in the context of the program, it also helped the team look critically at the clinical and social factors they had been recording in patient charts and recognizing their varying degree of importance in the patient's overall recovery. The model not only assigned a tangible measure of success but also revealed previously undetected decline as well as progress, by calculating a score that relied on a longer timeframe than traditional recovery models.

Data for substance use is limited by the traditional models that treat it and therefore usually does not extend beyond the timeframe of 90 days. When designing this model, it was important to use traditional data as a reference with the understanding that like this program is extending beyond inpatient care, this model also should extend beyond the way success is tracked and defined. In that spirit, this model, like the COE program, is largely exploratory and aims to collect and create data in a space where there is none yet. This model is meant to continue to grow and develop as data tracking evolves and changes, and the factors that contribute and deter from success become more clearly defined. While there were many scoring systems and scales in place that could have been layered into this system, they were preexisting constructs that may or may not have resonated with the unique goals of this program; therefore, it was important to define factors and this system from the ground up.

Development of The Model

The model is designed, first and foremost, to provide a snapshot of the current state of the program and the progress of patients. Throughout the early part of 2017, Benjamin & Bond held discussions with the team about the potential for feedback informed treatment (FIT). In FIT, patients periodically-generally before office visits-respond to a series of digital guestions with no observation from staff. Their answers can be compared to other data sets and used to predict potential relapses or crisis situations. There was, and is, a lot of excitement about the potential for using FIT at FFH in the future, but implementing a protocol was simply too daunting in year one.

It's important to make the distinction between predictive analytics and descriptive analytics. The scoring system that has been created is descriptive. It tells the viewer exactly what has happened in the course of a patient's care. This has no predictive value. While its primary function is not to be a preventive tool, as the data set continues to grow and patterns start to emerge, it is our hope that the model will also take on a predictive capacity. Furthermore, the model is meant to reflect the clinical success of recovery within the context of primary care-meaning that success is not only staying sober, but also includes a patient maintaining good mental health and continuous engagement with the program. By using clinical validation and research to create and adjust the model, multiple iterations lead to the system in its present state. Like many of the other aspects of the COE program at FFH, it relied heavily on Dr. Bell's expertise and experience with substance use and recovery, while also drawing on the team's collective knowledge gained over the course of the last year.

The software is a simple input system with a questionnaire of 15 "yes or no" questions that is completed and date-stamped for every patient appointment. At the bottom of the questionnaire is a simple red/yellow/ green status selection and notes section for important information that is pertinent to the visit and the patient's recovery. Progress is charted in a line graph, and aggregates by provider, CM, sites, etc. are calculated daily.

Threshold for Success

The first step in developing the model was defining the threshold for success. The system is a 100-point scale, but the goal for each patient is a score of 80. Therefore each patient starts every encounter/visit at 80. Negative determinants subtract points, while positive ones add points. If a patient has an expected urine screen, but also engaged in none of the positive behaviors that are tracked, he/she would stay at 80.

Contributing Factors

The next step was defining the determinants that can decrease or add to the score. It was important that these factors captured the multifaceted view of recovery that the program promotes: social factors, mental health, and sobriety. Some negative factors such as opioid use, cocaine use, marijuana use, etc. were easily extracted from routine urine screens. Positive factors reflected patients' engagement in other aspects of the program as well as some of the social factors that identify patients are living a healthy lifestyle-such has having a job or being enrolled in school.

It was important that the model be equally applicable to all substance use patients, so Benjamin & Bond made the decision to use only data points that were tracked for every patient in every appointment. This limited us in some ways. Members of the FFH team pushed hard to include more of the social determinants of health in the model, but these weren't documented in a methodical way at the time. This is a major goal for 2018.

Time Frame

Defining a meaningful timeframe for the scoring system was perhaps the hardest part; we began with 90 days, a standard within traditional treatment models. After assessing the average relapse time of patients, we found 120 days to be more meaningful, as 80 percent of relapses occurred in 120 days or less. Using a system of multipliers applied to visits in the last 30, 31-60, 61-90 and 91-120 days in decreasing severity, we accounted for the effect of time; meaning things that occurred in the last 30 days have a larger effect on the score due to a larger multiplier while things that happened further in the past contribute less. Nothing that happened more than 120 days ago has an impact on a patient's score.

Assigning Values

Point values were assigned by using a tiered ranking system while also considering how a positive factor could balance out a negative factor and vise-versa. Positive values were assigned so that if a patient was continuously engaged in all the positive aspects for the scoring system over the time frame of 120 days, his or her score would reach 100.

The first version of the system showed the negative factors to be too harsh; dropping scores well into the negatives, and while the system tries not to inflate scores or show false success, the meaning of a scale that extended well below zero and maxed at 100 was questionable. Point values and multipliers were adjusted to balance the system. By applying the system to a sample set of patients, final adjustments were made until scores were accurately reflected. The final system begins with a starting point of 80, positive and negative factors are then tallied within 30-day increments back to 120 days ago and have a multiplier applied to each 30day segment. The net result is then combined with 80 to get the patients final score for that appointment.

Patient Status & Notes

While the process of collecting patient data was created in many ways to remove subjectivity, we found it important in a program so focused on individual touchpoints to appropriately make room for information that may affect their recovery but isn't necessarily reflected in the static questionnaire. The

addition of the simple red/yellow/ green status and note section allows CMs to "red light" patients who might be in potentially compromising situations. This status creates a secondary way for CM, providers and RSSs to look at patients whose current score may not be reflecting all of the social factors and nuances that could affect their recovery.

Scoring System Strengths & Limitations

The biggest limitation of the software is that in its creation and current state, it relies heavily on the availability of information, a multi-layered factor that includes: what had been

Factor	Base Point Value	
Cocaine Use	-12	
Opioid Use	-12	
Methamphetamine Use	-8	
Benzodiazepine Use	-8	
No Show	-5	
Marijuana Use	-4	
Alcohol Use	-4	
Mood Disorder	-3	
Cravings	-2	
New Legal Problems	-2	
Employed/Attending School	+1	
Attending Therapy	+1	
Attending Meetings	+0.5	
Transfer to Inpatient	+2	
OD/Revival	-20	
60 Days No Appointment	-80	



consistently collected, the accuracy of reported information and the importance of collected information.

Limited availability of information meant that certain factors that are believed to have an impact on the patient's success could not be included in the scoring system because they had not been tracked for the entire year. There were also factors that seemed beyond the patient's control and therefore could lead to false penalization. For instance, one factor discussed was patient insurance status, which contributes to the availability of medication and care as a whole. However, not only was this factor not consistently tracked, but it was also beyond the patient's control. For instance, if a patient began a new job and his or her new insurance plan had different coverage, this was beyond his or her control. The accuracy of the information supplied by the patient prompted further simplification of the system. We realized that information about drug use in particular may often be altered and that additionally the impact between single and multiple drug use since the last visit had not been measured or compared and therefore assigning a difference would be largely arbitrary. Therefore substance use is tracked as use or no use: information which can mostly be gathered from the urine screen or may be volunteered by the patient.

In light of these limitations, we slimmed the factors we were tracking down to things that had been consistently reported over the course of the year. While the lack of data began as a limitation, it was guickly recognized that the available data all related to the patient's engagement in the program, therefore their score reflected not only their success in staying clean but also their success in relation to engagement with the program.

PROGRAM BY THE NUMBERS

The value of the data created by Family First Health will only grow over time. The ability to track a single panel of patients over the course of years will provide previously unavailable insight into how time in sobriety, age, physical health and the circumstances of life affect the ongoing treatment of opioid addiction. It is our hope that we can work with other partners in the Center of Excellence program to provide the medical community with a truly transformative data set in the future.

For now, FFH is publicly reporting as much data as it is able to track with accuracy and consistency. There is a lot of opportunity for more detailed tracking of other factors that will be added to procedures in 2018. Currently, FFH is releasing three different types of data.

Data from the Model

The tracking model is imperfect, but it's important not to let perfect get in the way of good. This data shows lower numbers throughout the final quarter or 2017, largely because the program added new patients rapidly, and new patients tend to have lower scores since they are frequently just beginning their recovery. This data will be more interesting and useful when patients can be compared over a consistent timeframe without constant growth.

Outcomes Data

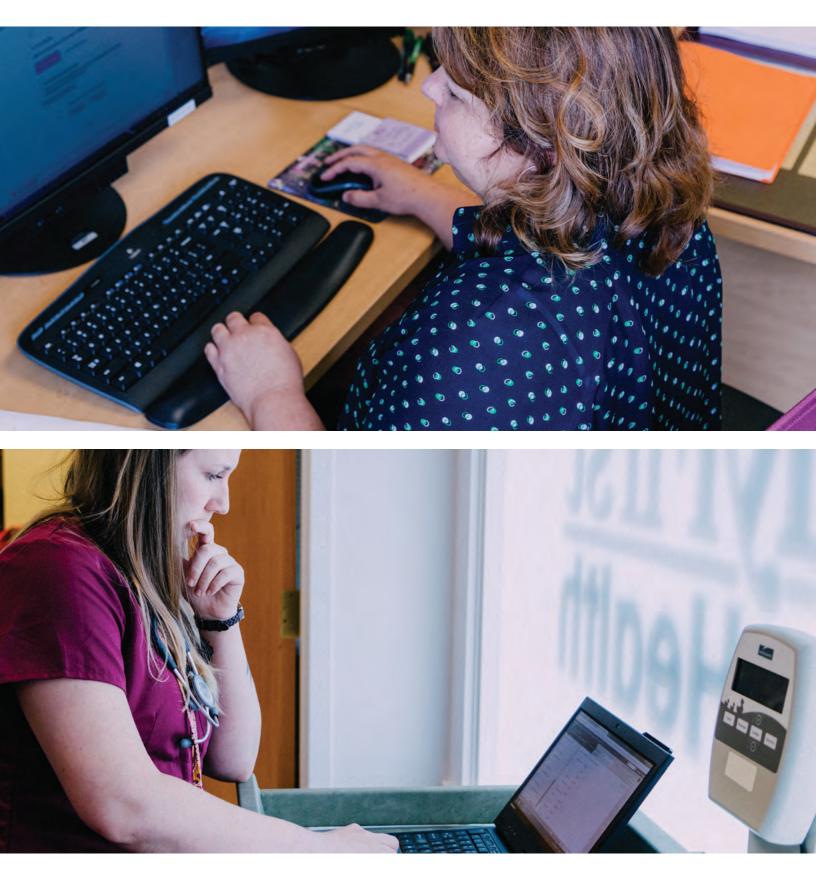
FFH is sharing both operations and clinical outcomes data paired with high-level demographic information.

Benchmark Comparison

We have taken data provided by FFH and refactored it to match the data structure of an analogous study for comparison.





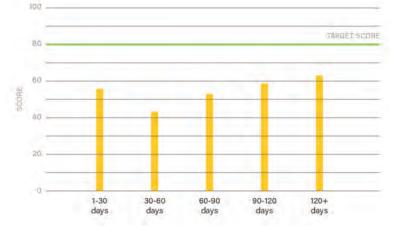


DATA FROM BENJAMIN & BOND MODEL

56.5 AVERAGE SCORE

as of 12/31/17

AVERAGE SCORE BASED ON NUMBER OF DAYS IN PROGRAM

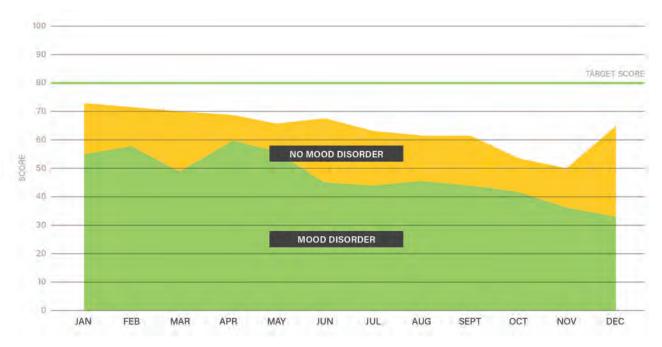


Patient scores generally dip as the model accounts for use prior to entering treatment, but patients show steady improvement as they become established in the program.



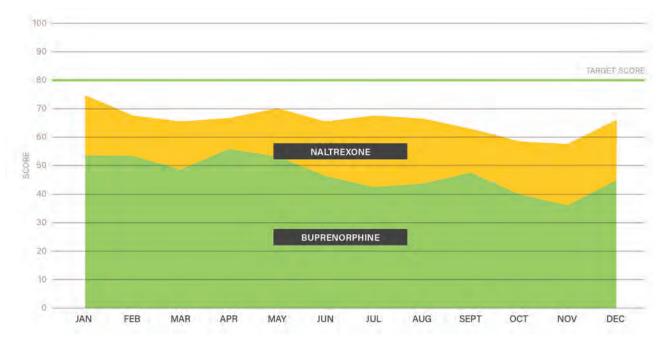
AVERAGE SCORE OF PATIENTS IN PROGRAM DURING 2017

Patients with a mood disorder included in their Family First Health medical record showed consistently lower scores than those without.



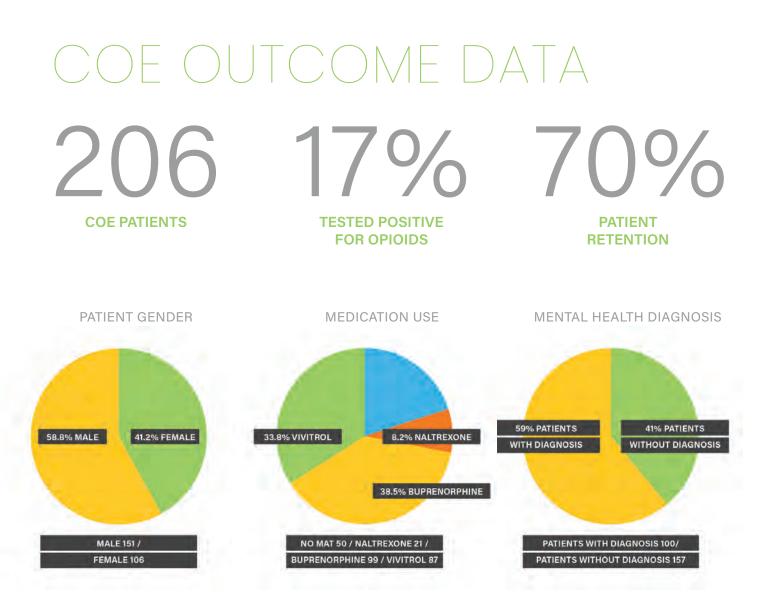
PATIENTS WITH A MOOD DISORDER VS PATIENTS WITHOUT A MOOD DISORDER

The average patient score went down as the year progressed, largely because growth of the program introduced a large volume of patients early in recovery.

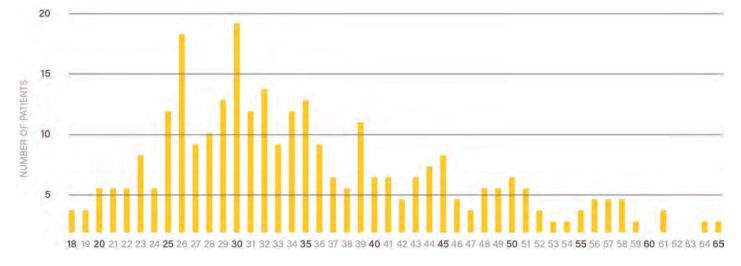


NALTREXONE VS BUPRENORPHINE

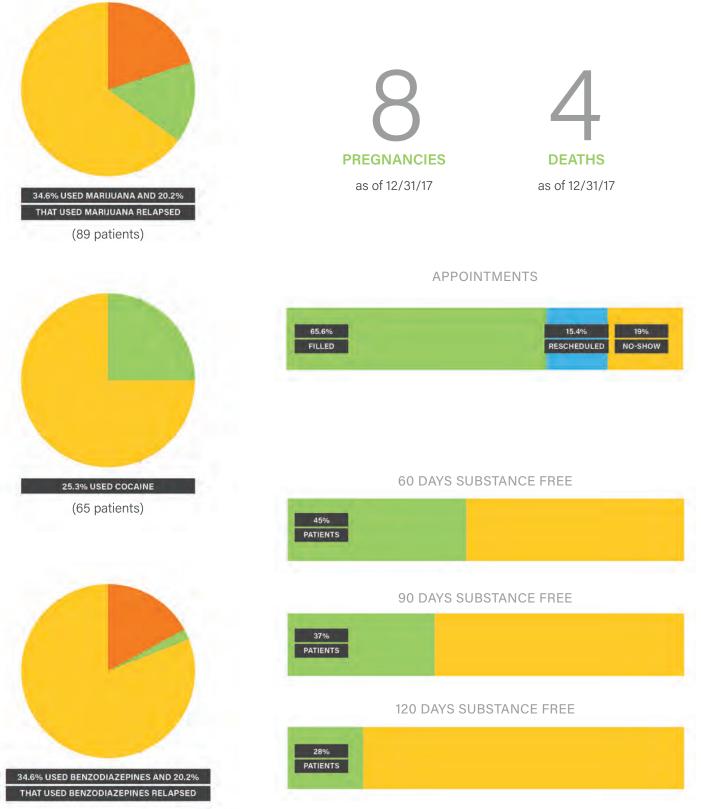
Patients who are prescribed Naltrexone consistently scored higher than those prescribed Buprenorphine. This is likely because patients on Naltrexone are more established in recovery.



PATIENT AGE



PATIENT SUBSTANCE USE



(48 patients)

BENCHMARK Comparison

Soeffing, J. M., et al., (2009) "Buprenorphine maintenance treatment...,"

"Buprenorphine maintenance treatment in a primary care setting: Outcomes at 1 year"; Janet M. Soeffing, (M.D.)*, L. David Martin, (M.D.), Michael I. Fingerhood, (M.D.), Donald R. Jasinski, (M.D.), Darius A. Rastegar, (M.D.); Journal of Substance use Treatment

This study was conducted through Johns Hopkins Bayview Medical Center at a primary care practice in Baltimore between 2003 and 2007. The study sought to assess outcomes of patients prescribed buprenorphine at a primary care facility and identify factors associated with favorable outcomes. The researchers chose to use "opioid-

negative blocks," i.e., any month in which a patient tested negative for all opioids, as its main measure of success. The study concluded that, "prescription of buprenorphine for the treatment of opioid dependence can be incorporated into a busy primary care practice and that many patients benefit from this treatment." It found no significant correlation between most of the other factors studied (co-occurring diseases, types of treatment sought, insurance status) but did find that patients using prescription opioids were significantly more likely to find success in treatment than those using heroin.

Why it is a Useful Comparison

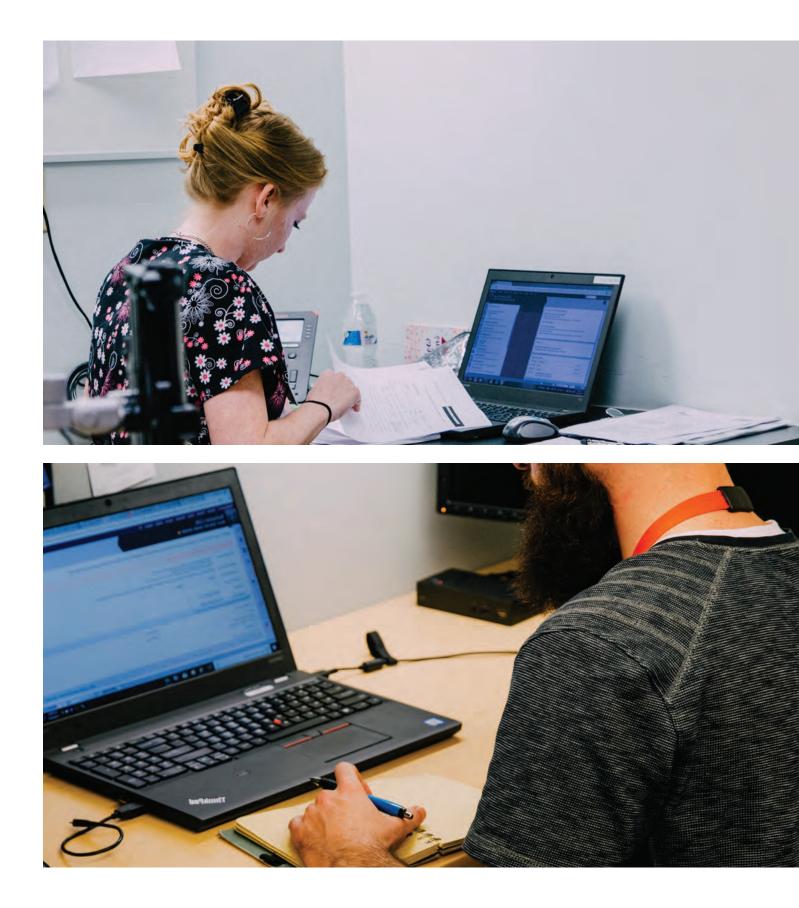
The study tracks patients receiving the same medication as prescribed by FFH providers in the same type of setting.

Factors to Consider

The study tracked only buprenorphine patients. We have seperated FFH results to isolate buprenorphine patients from all other patients for comparison. Because this study solely tracked buprenorphine, its sample of those patients is larger.

The study tracked all patients for a full 12-month period. Family First Health data from the first year of the program includes rolling additions of patients throughout the year. The sample size differs from the COE data presented previously because we chose to include all patients, even those who began treatment in 2016.

	Competition	Family First	
		Buprenorphine	COE
PATIENT	255	98	256
PATIENT RETENTION	56.9%	76.8%	70%
TOTAL NUMBER OF BLOCKS	2,164	366	945
PERCENT OF BLOCKS OPIOID NEGATIVE	64.7%	75.1%	85%
PERCENTAGE OF PATIENTS WITH MORE THAN 50% OPIOID NEGATIVE BLOCKS	47.5%	55%	78%



CONCLUSIONS & NEXT STEPS

For Family First Health, 2018 will be about consolidating the successes of year one. To start, Family First Health wants to make it easier for both new providers and new patients to get up and running in the program. Currently, new providers are briefed on expectations and the operations of the program by Dr. Bell. The goal is to have a binder full of detailed documentation, which answers as many questions as possible. Currently, new patients receive a copy of the FFH new patient handbook but very little information specific to the substance use program. A new patient packet is an opportunity to engage family members and any others supporting a patient's recovery, another program goal for 2018.

The data shared here goes far beyond what is available from most treatment programs, but in 2018, FFH will begin tracking the details of patient lives in more granular detail. Efforts to slice the patient population for analysis were limited by the fact that so few pieces of information have been collected in every single appointment. A new template for information collection in medical appointments is in progress, and upon completion, it will be added to the EHR. The hope is that next year, FFH will be able to share more and more meaningful data. Part of this analysis will compare numbers to the benchmarks outlined herein. The goal is to improve on as many of those key metrics as possible.

From a logistical standpoint, FFH leadership would like to make the program available to more people in more places. This means expanding services to the Gettysburg site and others-and continuing to add providers in existing offices. Understanding that it can't be responsible for every part of the process, FFH will explore new partnership opportunities in 2018. It already has one up and running providing recovery support and case management to patients receiving MAT at a partnering health system, and hopes to do more to help pregnant women in recovery find the services they need through partnership and program development in the coming year.





"There are a lot of people out there that look at it and say, 'That was their choice, why help them?' Because they are sick, and we are there to make them better."

JACLYN CULLISON LPN/MAT nurse

Building something from nothing is exhilarating. When the stakes are as high as they are in battling the opioid crisis, it's also nervewracking. Throughout the year, we have seen nerves fray and frustrations become distractions. We have also seen a group of people put the immediate safety and wellbeing of their patients first every single day and figure out solutions to some of the most philosophically and logistically challenging problems in an underexplored region of American medicine.

In the end, the team did the work by keeping it simple.

"In order to run and be in one of these programs, you have to understand addiction and you have to understand it's a disease," Calp said. "There are a lot of people out there that look at it and say, 'That was their choice, why help them?'

Because they are sick, and we are there to make them better."

The success of Family First Health's Center of Excellence is a credit to the Pennsylvania program that began it. We believe it is also a template for how ground will be won in the larger fight. The FFH Model is a great starting point for anyone nationwide interested in jumping into the space. It comes down to local people making change in their communities. No substance user ever found his or her footing because of an act of the legislature. When the right people are given resources, things move quickly.

It means something that by focusing less on relapses, FFH managed to create a program with a shockingly low relapse rate. By focusing less on complete sobriety, the program was able to get a lot of people into recovery. It should be a reminder to those in medicine, those in policy and those in the public that addiction is complicated and to heal our communities, we have to think in different ways.

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APPENDIX

Α

73. Measures of Success

В

75. Roles & Responsibilities

С

77. Patient Engagement Process – Buprenorphine (Suboxone, Subutex, Zubsolv, etc.)

D

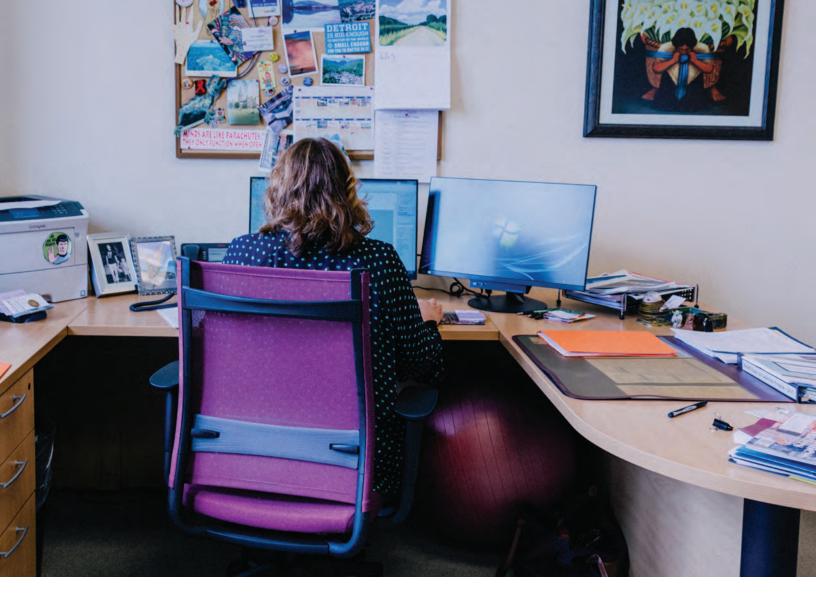
81. Patient Engagement Process - Naltrexone (Revia, Vivitrol, etc.)

Ε

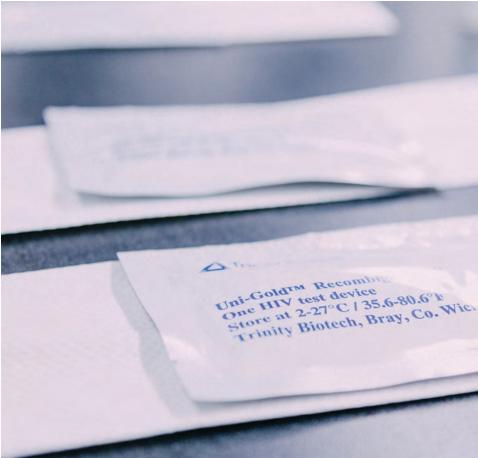
83. Patient Engagement Process - Disengaged Patients













Measures of Success

Because Family First Health views success in recovery as more nuanced than complete abstinence, over the course of the year it has worked diligently to develop comprehensive measures of program success. The team has continuously honed its processes and procedures for the last 12 months and will use 2017 performance as a benchmark for 2018. The measures have been broken into groups to reflect the different ways of analyzing program growth.

Process Outcomes

- Number of patients served (total) in a calendar year
- Number of patients actively engaged with the COE team (8+ contacts of any sort over 4 months)
- Number of patients receiving MAT/ total number of patients served
- Number of patients engaged in external substance use and/ or mental health services/ total number of patients served
- Patient experience survey results (Conducted after 30 days, 6 months and 1 year in the program)

Short Term Outcomes

- Increased percentage of patients that maintain housing after six months in program
- Reduced percentage of patients that have significant legal events after six months in the program
- Reduced addictive substance use (all substances)
- Increased percentage of patients abstinent from presenting substance for greater than 90 days at 8 months in the program
- Reduced relapse rate
- Reduced use of inpatient or detox services for patients with at least 12 months in program
- Reduced emergency room visits from all patients
- Reengaged higher percentage of patients in care after 60 days of inactivity.

Long Term Outcomes

- Decrease in patient mortality from overdose at any point of engagement in the program
- Improved clinical quality measures associated with primary care
- Increase percentage of patients abstinent from presenting substances for greater than 180 days at 12 months in the program

Team Success/ Organizational Metrics

- Team turnover less than 20% per year
- Expansion of number of prescribers and sites
- Staff satisfaction with role, supervision, organization, etc.
- Leadership and provider satisfaction with role, supervision, organization, etc.
- Decrease in no-show rate
- Decrease in utilization rate

Roles & Responsibilities

The FFH model is based around:

Program Manager

- Create community partnerships with Director
- Train and manage Case Managers and Recovery Support Specialists
- Coordinate with Quality Improvement Department (dashboard)
- Check charts/audit
- Coordinate SBIRT (screenings, etc.) rollout across all sites
- First contact for new patients
- Ensure patient voice is heard
- Sit on committees (with Director)
- Schedule, oversee and participate in huddles
- Supervise program staff in delivery of care
- Write policy, processes, etc. (with Dr. and Director)
- Participate in team huddle

Drug and Alcohol Case Manager

- Complete patient intakes
- Facilitate patient appointment scheduling with provider
- Ongoing follow-up with agencies/organizations to which patient is referred to ensure patient compliance and effective alignment of resources for patient
- Primary and on-going, regular contact with patients (easily accessible)
- Assist with connecting ED patients to treatment
- Refer patients to outside agencies (housing, food, transportation, etc.)
- · Verify referrals have occurred
- Complete patient consents/release of information
- Assist patient with navigating insurance
 issues, with MAT LPN
- Track patient data related to visits, etc.
- Determine appropriate follow-up with patients
- Patient retention/engagement in program

- Assist with emergency department
 patient connection for treatment
- Ensure compliance with CLAS (Culturally and Linguistically Appropriate Services) standards
- Assess patient needs and barriers; assist with navigating
- Participate in team huddle

Recovery Support Specialist

- Coordinate drug & alcohol CMs
- Accountability to "walk the path"
- Create recovery plan with patient
- Assist with identifying recovery services (AA, SMART recovery, etc.) with each patient
- Spend time with patient talking about recovery (challenges, etc.)
- "Coach" to patient
- · Assist patient in developing coping skills
- Participate in team huddle

LCSW

- · Navigate patient barriers to mental health services
- Cultivate external social work connections
- COE team liaison to FFH's behavioral health team
- Lead development of patient treatment plans
- Provide initial brief intervention services
- Provide patients with mental health referrals and referrals to more intensive treatment
- Lead development, coordination and execution of patient support groups
- Assist patient in developing coping skills
- Participate in team huddle

Provider

- Facilitate patient primary care visits (assess patient clinical needs, etc.)
- Prescribe and oversee medication management for MAT patients
- Refer patient to necessary outside

clinical supports (specialists, etc.)

- Advocate for patient appropriate management in psychiatry and emergency department
- Participate in team huddle
- Ongoing SUD training/education for all providers
- New provider recruitment and training for SUD treatment
- Resource for providers in medication management
- Cultivate practice-specific connections to specialists

MAT LPN

- Navigate and process prior authorizations
- Ensure quality measure compliance
- Train PCT members
- Train clinical staff in process and Vivitrol injections
- Support providers/teams in care of patients (order and administer Vivitrol, check PDMP, room patients, etc.)
- Train and assist staff in SBIRT process
- Patient triage and referrals
- Work with Case Managers to navigate and resolve patient insurance issues
- Participate in team huddle

Director

- Participate in learning collaborative (provided by State)
- Supervision of COE staff
- Ensure program meets State expectations
- Cultivate and ensure program sustainability
- Facilitate integration with other services/ departments (Quality Improvement, Behavioral Health, Caring Together, etc.)
- Lead program communication (internal and external)
- Facilitate development and deployment of appropriate program and FFH staff training
- Lead program/process review and refinement
- Facilitate connections with other COEs
- Ensure program integrity
- Ensure timely and accurate state reporting

- Create community partnerships with Program Manager
- Daily oversight of program
- Participate in appropriate community organizations to represent the COE (York Opioid Collaborative, etc.)
- Ensure tools/technology are optimized for program implementation and tracking
- Data Analyst/Administrative Assistant
- Create and manage tracking/ data collection mechanisms
- State and federal grant reporting
- Coordinate meetings, as needed
- Ensure completion of patient surveys

Data Analyst

- Assist in developing written processes
- Research revenue stream options
- Develop patient experience process
- Work with Director to ensure tools/technology are optimized for program implementation and tracking
- VP of Integration and Business Development
- Development of marketing collaboration
- Assess feasibility of FFH becoming a licensed drug and alcohol facility (through DDAP) to facilitate level of care assessments
- General program development and oversight
- Ongoing assessment of program/renovations

Other (CEO, CFO, Practice Managers, Practice Administrator)

SBIRT implementation across all sites

Patient Engagement Process – Buprenorphine (Suboxone, Subutex, Zubsolv, etc.)

	Time in Phase	Medical Appointment	Medical Visit Objectives	Prescription
Phase 1 (All buprenorphine patients begin at phase 1)	At least three weeks	• Weekly	 Focus on stabilizing MAT dosing Essential labs only Essential chronic medical and psychiatric needs 	Written for no more than one week at a time
Phase 2	At least two appointments	 Bi-weekly Nurse visits scheduled in between, as needed 	 Obtain screening labs Address QM needs Chronic medical and psychiatric follow up needs Use nurse visits for UDS, meeting with CM/RSS with prescription provided if no concern uncovered 	Written for no more than two weeks at a time
Phase 3		 Every 4 weeks (monthly) Nurse visits scheduled in between, as needed 	 Address QM needs Chronic medical and psychiatric follow up needs Use nurse visits for UDS, meeting with CM/RSS with prescription provided if no concern uncovered 	Written for no more than four weeks at a time
Re-engagement***	Varies based on patient progress	• Weekly	 Focus on stabilizing MAT dosing Essential labs only Essential chronic medical and psychiatric needs 	Written for no more than one week at a time

Exceptions: Any exceptions to this process should be discussed between the CM and the RSS. The Medical Provider should communicate any exceptions related to patient medical care and/or prescription with the CM. The Program Manager should be included in exception discussions, as needed.

* UDS results with THC are discussed

** See "Random UDS and Med Count" Process

*** If any of the following happens, a patient will immediately move to the patient re-engagement phase:

Urine Drug Screen (UDS)*	Behavioral Health (BH)	Case Manager (CM) Engagement	Recovery Support Specialist (RSS) Engagement	Clinical Rounds Discussion
Must show only prescribed medication (and/or quants trending down) to move to phase 2	Referral to outpatient counseling, if not already engaged	 At least one follow-up with CM or RSS, outside of medical appointment First follow-up must be within three days of the first medical appointment 		Yes
Random UDS and med counts**	Required engagement in outpatient counseling	 Weekly follow-up with CM or RSS, outside of medical appointment Recovery Plan required 		Only if patient needs additional support related to prescription, engagement, UDS or BH
Random UDS and med counts**	Continued engagement in outpatient counseling	 Bi-weekly follow-up with CM or RSS, outside of medical appointment Recovery Plan follow-up, adjusted as needed 		Only if a specific patient need arises
Must show only prescribed medication (and/or quants trending down)	Engage in outpatient treatment, if not connected	 Weekly follow-up with CM or RSS, outside of medical appointment Discuss change in treatment, expectations of program, etc. 		Yes

- 1. No call/no show for medical appointment
- 2. Repeated medical appointment rescheduling/cancellation
- Unexpected UDS (any substances other than THC) and/or admitting to using illicit substances

- 5. Failure to engage with agreed upon referred resources by two months in the program
- 6. Behavioral health concerns
- Any other behavior or occurrence that jeopardizes the patient's treatment plan and/or health

4. High-risk behaviors

Patient Engagement Process - Buprenorphine (continued)

If a patient delivers two or more unexpected UDS results and/or admits to using illicit substances after being the program for more than a month, the following will occur:

# of unexpected UDS and/or admission of using illicit substances	Medical Appointment	Treatment Plan	Other	Next Steps
2	- Weekly	Reassessed; new plan considered	MAT agreement reviewed with patient and patient re-signs agreement	Patient discussed as "critical" during next team "rounds" meeting to assess patient circumstances and determine best way to proceed with patient
3	At least two appointments	Reassessed; higher level of care considered (i.e. inpatient, methadone, or another setting)		Patient discussed as "critical" during next team "rounds" meeting to assess patient circumstances and determine best way to proceed with patient

If patient will no longer receive the same level of treatment from Family First Health, a team member will discuss the following with patient:

- Other treatment options available through Family First Health.
- Other treatment options available in the community.
- Rapid taper to naltrexone, if patient is interested.

For patients needing/wanting a higher level of treatment, a team member will assist the patient with referrals to other programs, including inpatient, if needed.

Patient Engagement Process – Naltrexone (Revia, Vivitrol, etc.)

	Time in Phase	Medical Appointment	Medical Visit Objectives
Phase 1 (all naltrexone patients begin at phase 1)	At least one appointment	• Weekly	 Initiate with oral naltrexone (unless already receiving Vivitrol) Essential labs only Essential chronic medical and psychiatric needs
Phase 2	At least one month	• Every 4 weeks (monthly)	 Obtain screening labs Chronic medical and psychiatric follow-up needs Address QM needs
Re-engagement***	Varies based on patient progress	 Every 4 weeks (monthly) Nurse visit with the patient to meet face- to-face with CM and/ or RSS support 	 Focus on stabilizing MAT dosing Essential labs only Essential chronic medical and psychiatric needs

* UDS results with THC are discussed

** See "Random UDS and Med Count" Process

* If any of the following happens, a patient will immediately move to the patient re-engagement phase:

- 1. No call/no show for medical appointment
- 2. Repeated medical appointment rescheduling/cancellation
- 3. Unexpected UDS (any substances other than THC) and/or admitting to using illicit substances
- 4. High-risk behaviors
- 5. Failure to engage with agreed upon referred resources by one month in the program
- 6. Behavioral health concerns
- 7. Any other behavior or occurrence that jeopardizes the patient's treatment plan and/or health

Urine Drug Screen (UDS)*	Behavioral Health (BH)	Case Manager (CM) Engagement	Recovery Support Specialist (RSS) Engagement	Clinical Rounds Discussion
Must show only prescribed medication (and/or quants trending down) after 1st visit*	Referral to outpatient counseling, if not already engaged	 Bi-weekly follow-up v outside of medical ap otherwise specified d Begin Recovery Plan 	pointment (unless lue to patient needs)	Yes
Must show only prescribed medication	Required engagement in outpatient counseling			Only if a specific patient need arises
Random UDS**	Engage in outpatient treatment, if not connected	 Bi-weekly follow-up v outside of medical ap otherwise specified d Discuss change in tre expectations of progr 	ppointment (unless lue to patient needs) eatment,	Yes

Patient Engagement Process - Disengaged Patients

Time Disengaged	Medical Appointment
1 Week	The team will utilize the "three call rule" for the first week that a patient becomes disengaged to attempt to reengage the patient. The team will also send text messages to the patient.
2 Weeks	After the first week of disengagement, the team will call and text the patient at least once for a week.
3 Weeks	After two weeks of disengagement, the team will call and text the patient every other week for two weeks.
1 - 11 Months	After one month of disengagement, the team will call and text the patient monthly. After two months of disengagement, the team will send a reengagement letter, in addition to the monthly call and text.
12 Months (1 - year)	After one year of disengagement, the team will send a final reengagement letter, in addition to a final monthly call and text. *The team will discuss the patient with the Program Manager before making him/her inactive.

*If a patient's phone number is no longer active, send a reengagement letter to the patient's mailing address and discuss with the Program Manager.

**If a patient requests to self-discharge from the program, notify the Program Manager.

