USING OUTCOMES RESEARCH TO IMPROVE RETENTION & PROVE HOW EFFECTIVE YOUR MAT PROGRAM IS



Passionate about helping more patients recover? Learn how outcomes research can help your program improve retention & prove your effectiveness to payers.



DEAR OTP OR OBOT LEADER,

When I started Vista Research Group in 2015 to monitor how individuals were doing during and after addiction treatment, the number of treatment centers doing any kind of outcomes research was infinitesimal. As the first clinical users started raving about how useful it was to be able to see how their patients were feeling during treatment, the number of rehabs using measurement-based care started to grow. This process accelerated when the Joint Commission started requiring all accredited organizations to collect and analyze patient outcomes in 2018.

Today, it is standard practice in short-term, therapy-based addiction treatment programs to monitor how patients are feeling during treatment. Increasing numbers of centers are also investing in systematically following up with their patients after treatment so they can prove to payers how effective their treatment is and answer the crucial "what is your success rate?" question of prospective patients. As value-based payer agreements become more common, the use of both during- and post-treatment outcomes research is continuing to grow.

Despite the rapid expansion of outcomes research in therapy-based treatment centers, the use of outcomes research by OTPs or OBOTs has remained relatively rare. This is surprising, because outcomes research would help centers like yours improve retention and give you powerful ammunition to justify higher reimbursement rates. Not only would this likely help you keep up with increasing payroll costs, but it could also, potentially, allow you to fund services such as case management and peer support that could be instrumental in your patients' recovery.

Recognizing that outcomes research could be at least as useful for medication-assisted treatment centers as it is for therapy-focused centers, if not even more so, Vista has spent the last several years developing and beta testing INSIGHT $20/20^{\text{TM}}$ for OBOTs and OTPs.

Following an overview of how the research works, this eBook discusses how MAT programs can use Vista's outcomes research to improve treatment retention, prove how effective your treatment is to payers and prospective patients, and drill down to see how your patients are doing by location, by clinician, by payer and over time. I hope you find this useful!

Joanna



Joanna L. Conti Founder & CEO, Vista Research Group, Inc. May 7, 2024

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How INSIGHT 20/20™ Works

With minimal staff involvement, Vista's outcomes research collects a wealth of useful information directly from patients and instantaneously presents it to clinicians in easy-to-understand patient dashboards.

Data Collection

Patients are asked a series of questions and relevant assessments using an elegant survey tool that modifies the questions patients are asked depending upon how they answer previous questions. Patients complete their Vista surveys online using a phone, tablet or computer.



At Intake: When a patient enters treatment, the intake coordinator hands them a tablet showing Vista's patient permission form. The patient enters their name and contact information and gives Vista permission to collect their personal health information and report it back to the treatment center. The patient is taken next to Vista's intake questionnaire where they answer questions about their drug use history, medication use, health, and quality of life, then are screened and assessed for co-occurring disorders using academically-validated scales. Patients are also asked to define their treatment goals, both in terms of what substances they want to discontinue using entirely and non-usage-related goals such as "I want to get back together with my partner or spouse". All of this information is instantly summarized for clinicians, allowing them to quickly complete the patient's biopsychosocial assessment, medical profile and treatment plan. On average, the intake questionnaire takes patients about 20 minutes to complete.

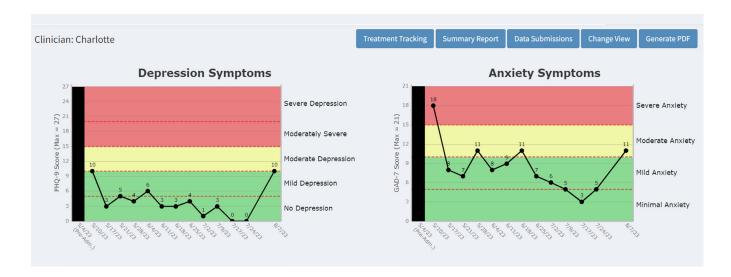
During-Treatment Update Surveys: Vista texts or emails patients on a regular basis asking them to update their clinician about how they are feeling by taking their next survey. Update surveys are usually requested each week at the beginning of treatment, but this frequency often tapers off over time. If Vista has API access to the EMR's scheduling module, update surveys can be requested the day prior to when a patient meets with their clinician. Update surveys typically take no more than 5 minutes to complete.

After Discharge: A random selection of patients who leave treatment are contacted three times over the following year to learn how they're doing. At each of these time periods, Vista will make 10 to 15 attempts to reach the patient by text, email and phone call. Vista incentivizes patients to submit post-treatment surveys by instantly sending them Target or Starbucks gift cards. Should patients not respond, Vista also reaches out to family members or friends the patient has given Vista permission to contact if they can't be reached.

While everything that patients report during treatment is instantly communicated to the treatment center, patients who've left treatment are promised that their responses will be kept confidential. If a patient reports using, however, they will be asked at the end of the survey if they'd like their treatment center to contact them to discuss possibly returning to treatment. If the patient responds that they would, Vista immediately notifies the center's admissions team.

Viewing Patient Progress

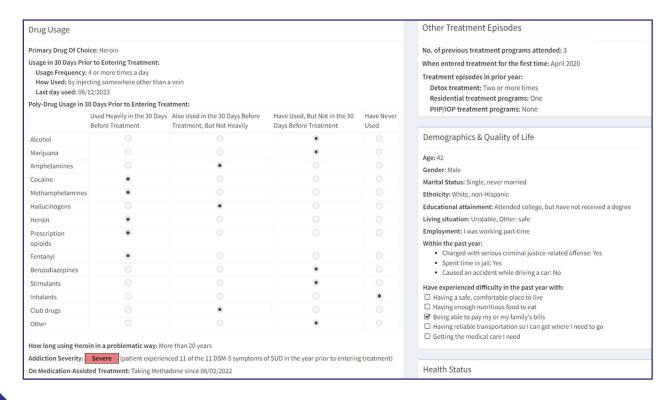
Key information about each of the co-occurring disorders patients are struggling with is instantly displayed in Vista's software on the patient dashboard along with their level of cravings, drug and alcohol use, and satisfaction with treatment. The black bar on the left of each graph shows how the patient reported feeling in the 30 days prior to entering treatment:



Clinicians who wish to see how the patient answered individual questions can drill down into the survey itself. For example, a clinician might find it useful to learn which of the symptoms of depression the patient was struggling with the most by viewing their answers to the PHQ-9:

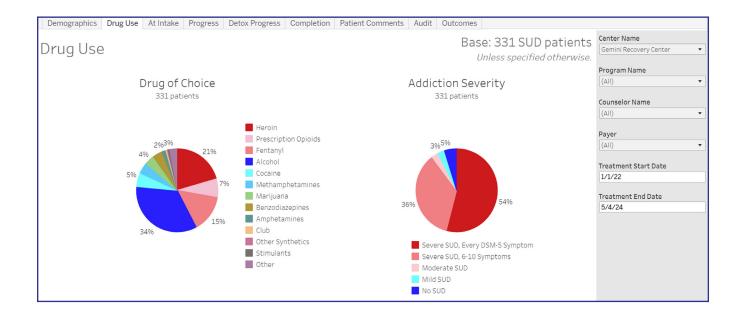
Symptoms of Depression Since you last filled in this survey, how often were you bothered by any of the following problems?						
Little interest or pleasure in doing things	0	•	0	0		
Feeling down, depressed, or hopeless	0	0	0	•		
Trouble falling or staying asleep, or sleeping too much	•	0	0	0		
Feeling tired or having little energy	•	0	0	0		
Poor appetite or overeating	0	0	0	•		
Feeling bad about yourself - or that you were a failure or had let yourself or your family down	0	0	0	•		
Trouble concentrating on things, such as reading the newspaper or watching television	•	0	0	0		
Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	•	0	0	0		
Thoughts that you would be better off dead or of hurting yourself in some way	•	0	0	0		

Clinicians will also find the Patient Summary report useful, as it summarizes what brought the patient to treatment along with their drug use history, treatment goals, previous SUD treatments, overall health and demographic information. A portion of the Patient Summary is shown below:



Data Analytics

While clinicians typically focus on what individual patients are reporting, managers will likely find Vista's data analytics most useful. The data analytics platform allows managers to analyze 65+ patient-reported metrics by location, by clinician, by payer and by time period. For example, the Drug Use page summarizes patients' Primary Drug of Choice and Addiction Severity along with multiple other types of information related to substance use:



Reports

Vista Research Group provides each client with a comprehensive annual report summarizing their patient's outcomes, including 360° views of how many of their patients are meeting their self-defined drug and alcohol treatment goals six months and one year after entering treatment. The report shows how patients have improved on multiple co-occurring disorders, compares results for different locations, benchmarks results against norms for similar types of centers, and reports trend data over time.

Vista also provides clients with up to three free Payer Summary Reports per year (see page 19) as well as a free Prospective Patient Report designed to be showcased on the company's website.

Improving Treatment Retention

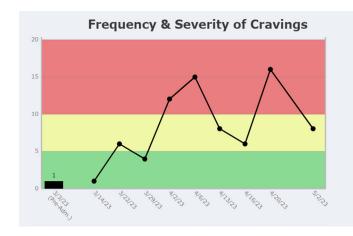
Identifying Patients Struggling with Cravings

Research shows that patients often drop out of treatment when their cravings for drugs or alcohol increase¹. Patients are asked three types of questions on every update survey that can help clinicians determine whether cravings are becoming a problem:

- the strength and frequency of the patient's cravings
- the patient's happiness with the medication they're taking
- whether the patient has recently used alcohol or non-prescribed drugs that they wanted to avoid

Your patient's responses to these questions are instantly available on their patient dashboard so your team can see at a glance any issues that have arisen.

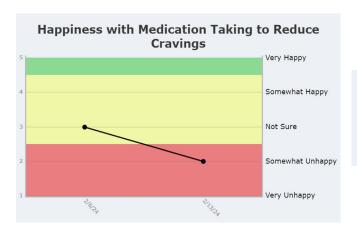
Cravings: Vista asks patients to rate both the frequency and the severity of any cravings they have. The resultant cravings score can be quite informative, particularly the trend lines. For example, the patient on the left dropped out of treatment shortly after his last survey, while the patient on the right remained in treatment:







Happiness with Medication: A second place to look for evidence that a patient is struggling is their answer to the question about how happy they are to be taking their MAT medication. More than half of patients who remain in treatment typically report that they are very happy to be taking their medication. If a patient says they're not happy with their medication, the way they answer "Why?" can be very enlightening:



2/13/24: Feelings about MAT: Not sure it's doing anything considering the last 48 hours have been nothing but an almost constant craying.

2/6/24: Why satisfied/dissatisfied with treatment: Still filled with too much anger, and the thought of "what's the point?"

2/6/24: Feelings about MAT: Just don't feel fully educated on the medication or understand the reasoning behind being prescribed it.

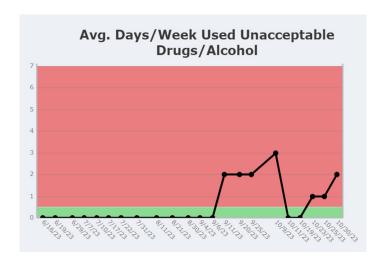
When a patient reports substantial cravings or expresses dissatisfaction with their medication, this should prompt an immediate discussion. Perhaps their dosage needs to be increased or a different medication should be considered.

Usage of Unacceptable Drugs or Alcohol: At the start of treatment, patients are asked to define treatment success for themselves. About three-quarters of patients attending therapy-focused, harm reduction-oriented centers set a goal of abstaining from all drugs and alcohol. Among the remainder, most define treatment success as abstaining completely from their primary drug of choice. However, a minority of patients set goals of using less frequently, particularly patients in treatment for alcohol or marijuana use disorder:

Self-Defined Harm Reduction Goals by Primary Drug of Choice (among 2,980 patients in harm reduction-focused programs between 1/1/20 & 3/31/24)

	# of Patients	Abstain From All Drugs & Alcohol	Abstain From PDOC but not all other D/A	Abstain from using PDOC - Total	Use Less PDOC	Continue Using PDOC as Have Been
Alcohol	1,508	76%	10%	86%	13%	2%
Marijuana	425	50%	12%	62%	25%	14%
Methamphetamines	342	85%	13%	98%	1%	1%
Prescription Opioids	144	76%	23%	99%	1%	0%
Heroin	148	90%	10%	100%	0%	0%
Cocaine	162	78%	20%	97%	2%	1%
Benzodiazepines	61	62%	31%	93%	5%	2%
Other	78	65%	22%	87%	3%	10%
Fentanyl	68	75%	25%	100%	0%	0%
Amphetamines	44	69%	24%	94%	6%	0%
All Patients	2,980	73%	13%	87%	10%	3%

Therefore, a third warning sign that a patient is struggling with cravings is if they start using a substance they wanted to avoid. Vista's patient dashboard includes a chart showing how frequently the patient used substances they defined as unacceptable. This patient, for example, reported struggling to meet the substance goals he had set for himself for two months before he dropped out of treatment:



For more information, clinicians can drill down into the actual survey submissions to see the details of what substances their patient are using and how they are using them:

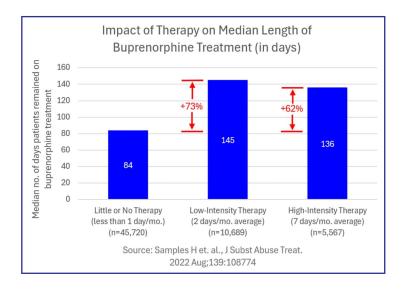
Since you last filled out this survey, on how many days did you use methamphetamines?							
One day							
 More than one day but less than one-third (33%) of the days Between one-third (33%) and two-thirds (67%) of the days More than two-thirds (67%) of the days, but not every day 							
							Every day
On the days that you used methamphetamines, how many different times did you usually use it? (consider two times to be different if there was at least a one hour break between them):							
One time							
2 to 3 times a day							
○ 4 or more times a day							
How did you usually use methamphetamines during this time?							
O By mouth							
By smoking it							
By inhaling, snorting or sniffing it							
O By injecting it into a vein							
O By injecting it somewhere else							
O By freebasing							
O Some other way							

Treating Co-Occurring Disorders

The Impact of Counseling During Opioid Maintenance Therapy

A recent large-scale study has shown that providing therapy to patients receiving buprenorphine significantly improves retention in treatment. Unfortunately, no similar study has been conducted for patients receiving methadone:

Buprenorphine: Based on an analysis of Medicaid claims data for 61,976 adults who received buprenorphine for at least 7 consecutive days between 2013-2018, Dr. Hillary Samples et. al.² found that patients who received two or more individual, group, and family psychotherapy or counseling services per month remained in treatment about 70% longer than those who received little or no therapy:



Methadone: The literature regarding the impact of counseling for patients in methadone maintenance therapy is less conclusive. A 2011 Cochrane³ analysis of 35 clinical trials with an average of 123 patients each concluded that the addition of psychosocial counseling to patients on methadone maintenance did not improve outcomes. More recently, a 2022 analysis of 24 somewhat-larger clinical trials⁴ found that adding different types of counseling and psychosocial support did significantly improve the retention in treatment of patients on subtherapeutic doses (< 60 mg/day) of methadone.

It is difficult to prove statistical significance with small base size trials. It is disappointing that no studies analyzing claims data for tens of thousands of patients on methadone maintenance therapy have been published. It would be surprising if such research contradicted the findings of the buprenorphine study that therapy improves treatment retention.

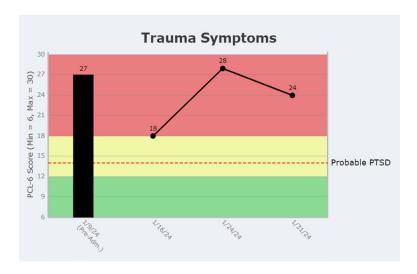
Providing Effective Counseling

The vast majority of adults entering SUD treatment report having moderate to severe symptoms of at least one co-occurring disorder sush as depression, anxiety, PTSD, mania or psychosis. Roughly one-third will have some sort of eating disorder, a substantial percentage will be having suicidal thoughts, and some will be self-harming in other ways, such as by cutting themselves.

Many individuals self-medicate with substances to deal with unpleasant feelings. Therefore, resolving underlying co-occurring disorders can be integral to a patient being able to achieve long-term recovery from substance use disorder. With the high caseloads common at many MAT programs, it is crucial to provide your team with tools that identify disorders a patient is struggling with and chart the severity of their symptoms over time.

Research has found that providing clinicians with information about how their patients are feeling can be instrumental to resolving co-occurring disorders. In a meta-analysis of 45 mental health-related clinical trials, Carlier et al.⁵ found that patients whose clinicians had this kind of data got better faster in 65% of the studies, including all three of the trials conducted in addiction treatment centers.

Vista screens new patients for co-occurring disorders using simple validated Yes/No questions. If they answer "Yes" to any of the screening questions, the patient is given an academically-validated assessment for this condition. Patients who have moderate to severe symptoms of a disorder are then monitored for this condition throughout the time they're in treatment, with their progress displayed in color-coded graphs on their patient dashboard. In the chart below, the black bar on the left shows how the patient reported feeling in the 30 days prior to starting treatment:

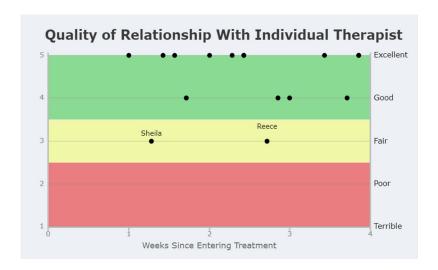


A clinician who glances at a patient's dashboard prior to meeting with him or her might discover that while their symptoms of depression and anxiety are abating nicely, the patient is struggling with debilitating flashbacks. Being pre-warned, the clinician can dive immediately into a focused discussion about their PTSD symptoms with the patient.

Resolving Other Treatment Issues

Other key metrics to pay attention to are how satisfied the patient reports being with the treatment they're receiving and how they feel about their relationship with their therapist. Decreases or low ratings in either of these areas should spark a problem-solving conversation with the patient.

By showing the most recent survey result for each patient and labeling patients who are struggling with co-occurring disorders or other issues, Vista's group summary dashboard makes it easy to identify patients needing attention:



Once again, looking at the comments that patients make about the reason they gave the rating they did can be very helpful. Vista's analytics platform allows managers to review comments by location, by clinician, by payer and by satisfaction with treatment. Should patient satisfaction at a particular location be declining, managers can review the comments being made by dissatisfied patients at that location to look for common complaints:

Satisfaction	Comment Label	Comment
Somewhat unsatisfied	Satisfaction with treatment	groups are not helpful - make depression and anxiety worse
Neutral	Satisfaction with treatment	groups are unhelpful
Neutral	General comments about treatment	I kinda don't wanna go to group this week because the confrontational stuff that's been going on me super nervous about my safety. I don't align myself with the drama. I'm not here for the dram
Neutral	Satisfaction with treatment	not enough groups short staffed and could do more for them also I might add

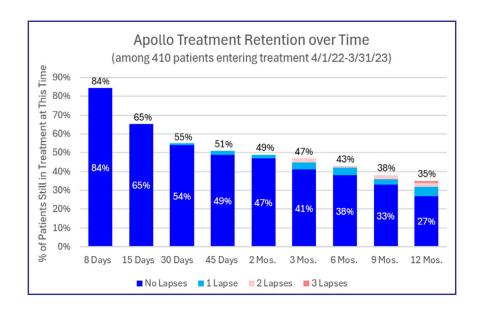
Proving How Effective Your Treatment Is

Editor's Note: Vista has only begun to conduct outcomes research with MAT centers, and it is too early to predict what the norms will be. Nonetheless, we thought it would be useful to include examples of how we expect these charts will look. The graphs in the next two sections are for illustrative purposes only.

Verifying Treatment Retention

OTPs and OBOTs have traditionally used retention in treatment as the key measure of treatment effectiveness. This makes sense because patients in treatment are receiving medication to manage their cravings.

However, patients often rotate in and out of treatment, making it difficult to get a clear read on how many patients are still in MAT treatment at different time periods. Vista's data analytics platform solves this problem by allowing managers to instantly create treatment retention graphs by location, by clinician, by payer and by time period:

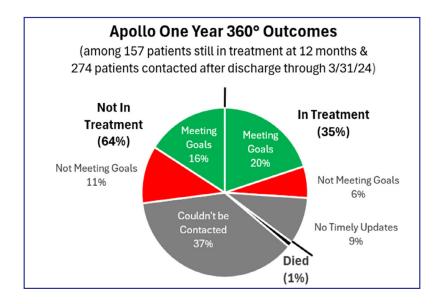


Meeting Drug & Alcohol Treatment Goals

Just because a client has left treatment does not mean that they've relapsed. They may be getting their medication elsewhere or they may be doing fine without it. To accurately measure the impact of your treatment on patients, you need to be systematically following up with a representative group of your patients who leave treatment.

Vista provides a 360° view of your outcomes by combining information about how your patients still in treatment and those who have left treatment are doing one, six and twelve months after they started treatment.

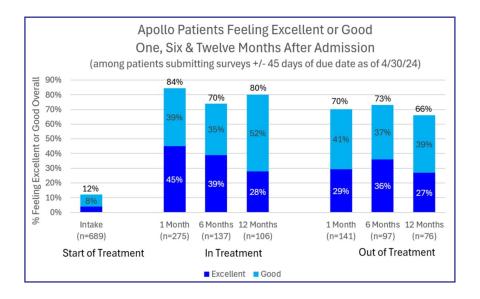
The following sample graph shows that 20% of patients are still in treatment and meeting their self-defined drug and alcohol usage goals one year after entering treatment. Based on following up with a random sample of patients who've left treatment, Vista is able to show that another 16% of the patients are meeting their drug and alcohol usage goals one year later even though they're no longer in treatment at the original center. Overall, 36% of this center's patients are achieving their goals one year after entering treatment:



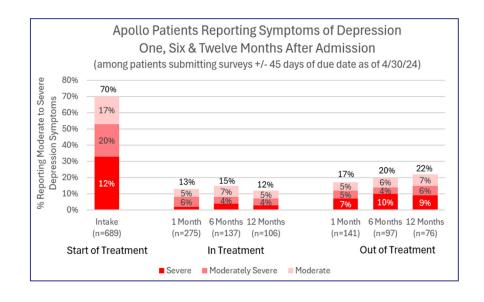


Treating Co-Occurring Disorders

As patients participate in treatment and reduce their usage of dangerous substances, those submitting surveys usually report feeling a lot better, regardless of whether they're still in treatment or not:



Additionally, the severity of their co-occurring disorders typically decrease. The following chart shows the percentage of patients who report having moderate to severe levels of depression at different periods of time:

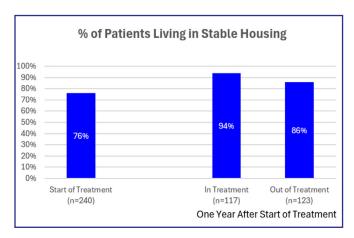


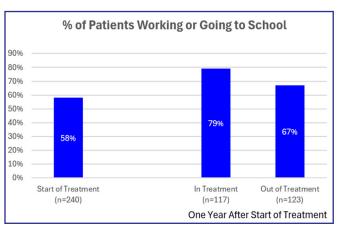
Quality of Life Improvements

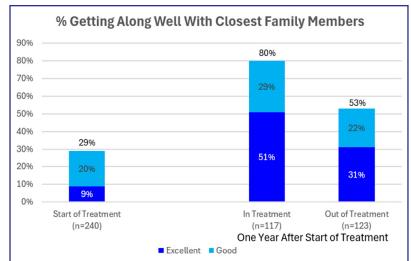
In addition to helping your patients meet their drug and alcohol usage goals, it is likely that treatment has had other positive effects on the lives of your patients.

Vista requests updates on numerous quality of life measures every six months throughout the time patients are in treatment. Vista also attempts to collect this information from a random selection of patients who discharge from treatment on their next two half-year anniversaries of entering treatment.

Patients who submit surveys one year after starting treatment are more likely to live in stable housing, be gainfully employed or going to school, and be getting along well with their closest family members compared to when they first entered treatment, regardless of whether they are still in treatment or not:

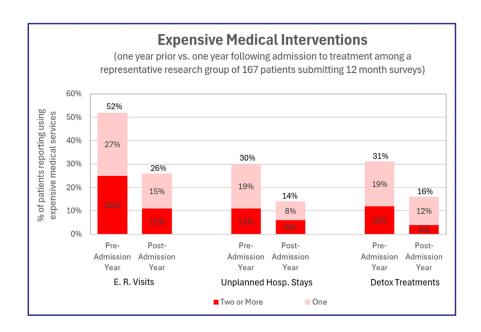






Reduced Spending on Expensive Medical Services

In short-term, therapy-based SUD treatment, there is typically a substantial decline in the number of Emergency Department visits, unplanned hospitalizations, and detox treatments during the post-admission year compared to the year before they started treatment. We expect to see a similar reduction in the usage of expensive medical interventions as patients in MAT treatment start to recover:



By analyzing almost 500,000 records of 2021 SUD-related hospital visits in AHRQ's Healthcare Cost and Utilization Project's NIE and NEDS databases, Vista has determined the median cost for each of these medical interventions by region of the country. This allows Vista to estimate how much the payer saved in hospital-related expenses per patient in the year after patients started treatment compared to the prior year:

Est. median annual savings per patient: \$11,879



The Payer Summary Report

To help MAT programs negotiate more effectively with their primary payers or MCOs, Vista will summarize the outcomes of a payer's members in a Payer Summary Report.



The report culminates in an estimate of how much the payer saved in emergency room visits, unplanned hospital stays and detox treatments over the previous year for each patient treated at the OTP or OBOT based upon median costs for SUD-related interventions in that region of the country.



Identifying Ways to Make Treatment Even More Effective

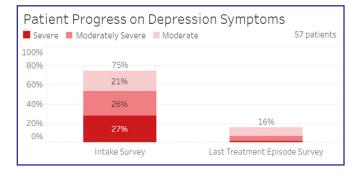
Analyzing Aggregated Patient Data

Vista's data analytics platform allows managers to analyze 65+ patient-reported metrics by location, by clinician, by payer and by time period.

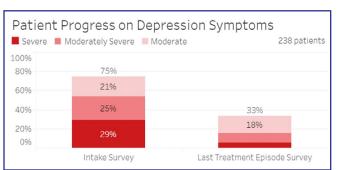
Companies with multiple locations can use Vista's data analytics to discover which locations have substantially better retention than others. Doing a deep data dive will likely identify a few things these locations are doing better than the rest, potentially opening the door for these centers to share best practices with other centers in the area.

Similarly, if a clinician (such as Emma below) is found to be substantially more effective than her colleagues at helping her patients reduce their symptoms of depression, she could be asked to share the approach she uses with the rest of the team:

Emma



Rest of Clinical Team

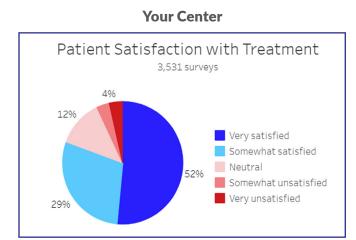


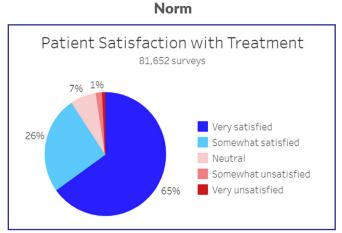


Comparing to Benchmarks

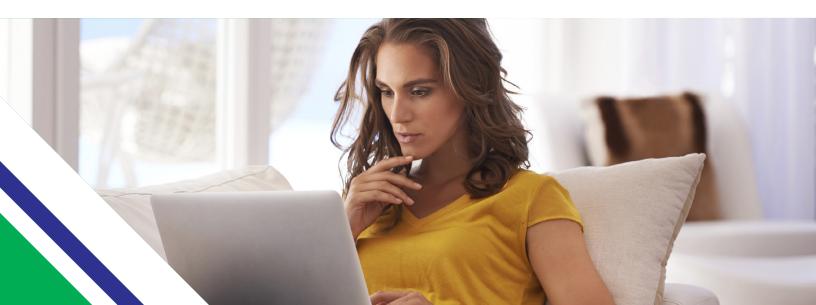
Because it is typically far more useful to compare your center's results to those of similar treatment programs than to consider them in the absolute, Vista regularly publishes its norms for different types of treatment programs.

Looking only at the graph below on the left, you might think your team is doing great because the majority of your patients are satisfied with the treatment they're receiving. However, if the norm for centers like yours is on the right, it's clear there is substantial room for improvement:



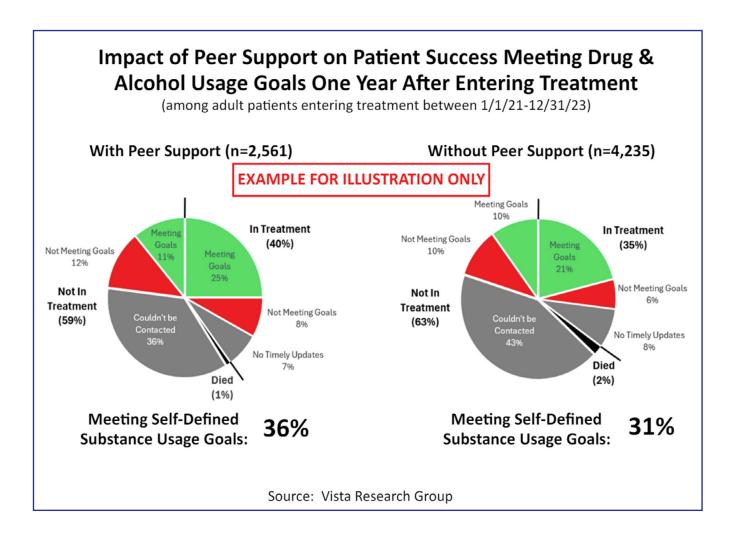


To simplify this process, Vista's annual reports summarize key results, compare them to norms, and show how they're trending over time.



Running Pilots to Justify Additional Services

In some areas, funding for medication-assisted treatment barely covers the essentials, let alone services such as case management and peer support that can be very helpful. In situations such as these, it may be possible to show the impact a service has by comparing results in one area offering the service to results in a similar area where it is not available:





Getting Started with Vista's Research

Just like Vista makes it easy to collect and use your patient data, Vista makes it easy for you to start outcomes research. Check out Vista's per-clinician pricing on our website, schedule a Discovery call to get your questions answered, and let us know when you're ready to move forward. We'll schedule a 30-minute implementation call with your leadership team to discuss your customization options, then set up trainings for your team. You can be off and running in a week or two!

Should your team run into any issues, our fabulous client support team is only a phone call away. And on the off chance that you don't find Vista's research to be as helpful as you expected, you can cancel at any time with 30 days notice.

We can't wait to welcome you to the Vista Research Network! Once your team has been using Vista's outcomes research for a few months, you won't be able to image treating patients without it.

Sign Up for A Discovery Call

https://vista-research-group.com/discovery-call

¹Panlilio LV, Stull SW, Kowalczyk WJ, et al. Stress, craving and mood as predictors of early dropout from opioid agonist therapy. Drug and Alcohol Dependence. 2019 Sep;202:200-208. DOI: 10.1016/j.drugalcdep.2019.05.026. PMID: 31357121; PMCID: PMC6707374.

²Samples H, Williams AR, Crystal S, Olfson M. Psychosocial and behavioral therapy in conjunction with medication for opioid use disorder: Patterns, predictors, and association with buprenorphine treatment outcomes. J Subst Abuse Treat. 2022 Aug;139:108774. doi: 10.1016/j.jsat.2022.108774. Epub 2022 Mar 18. PMID: 35337716; PMCID: PMC9187597.

³Amato L, Minozzi S, Davoli M, Vecchi S. Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. Cochrane Database of Systematic Reviews 2011, Issue 10. Art. No.: CD004147. DOI: 10.1002/14651858.CD004147.pub4.

⁴Liu C, Li Y. Psychosocial combined with methadone maintenance treatments versus methadone maintenance treatments alone for treatment of opioid use disorder: A meta-analysis, Journal of Addictive Diseases 2024. 42:2, 126-135, DOI: 10.1080/10550887.2022.2158664.

⁵Carlier IV, Meuldijk D, Van Vliet IM, Van Fenema E, Van der Wee NJ, Zitman FG. Routine outcome monitoring and feedback on physical or mental health status: evidence and theory. J Eval Clin Pract. 2012 Feb;18(1):104-10. doi: 10.1111/j.1365-2753.2010.01543.x. Epub 2010 Sep 16. PMID: 20846319.