

# Technology Enhancements for Value-Based Payment Models in Substance Abuse Treatment

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## Abstract

Electronic Health Record (EHR) adoption in behavioral healthcare has been slow, leading to a dearth of empirical research on EHRs in the behavioral health field (Bruns et al., 2018; Hatef et al., 2019; Kariotis et al., 2022; Zurynski et al., 2021). This gap prevents behavioral health providers from accurately assessing healthcare quality and optimizing performance, which is crucial for implementing and utilizing value-based payment models (Frimpong et al., 2023). In this presentation, we will approach this problem by identifying technology enhancements contained within recent empirical research literature on the topic that have shown promise to drive overall performance. These enhancements are: Increasing collaboration across treatment settings and providers, creating clinical pathways and workflows to reduce clinical variations, and measure patient performance outcomes through utilization and quality.

## Value-Based Payments: How the rewards flow



## Introduction

There is consensus among healthcare and policy researchers that Electronic Health Records (EHRs) offer numerous benefits. The literature indicates that EHRs enhance the ability of healthcare practitioners to record patient data and interactions, which in turn eases the burden of accessing and transferring patient records and information. Furthermore, EHRs help to facilitate care coordination among various healthcare providers, leading to an integrated and holistic approach to healthcare (Kariotis et al., 2022; Riahi et al., 2017). However, despite these research findings, the behavioral health field has not yet devised a structured method of capturing data that reflects the complexity and nuances within the mental health context. Therefore, we reviewed the literature to identify existing data collection methodologies and identify best practices when developing EHR systems.

## Outcomes

The measurable results, positive or negative, of a healthcare activity, such as psychotherapy, prescribing or giving someone medicine, or engaging in a treatment plan. Many results are measurable, for example: a change (or no change) in health, like how long a patient maintained sobriety or whether they felt better; or what a patient was able to do, such as end treatment or go home from the hospital (PCORI, 2024).

## Methodology

This narrative review examined performance indicators contributing to improved outcomes for clients experiencing psychological distress and explores enhancements needed in behavioral health electronic health records (EHRs) to achieve better outcomes in substance abuse treatment. This was carried out using the APA PsycINFO and Google Scholar electronic databases of peer-reviewed studies conducted between 2014-2024. The review included papers organized around three key pillars: (1) Measurement of performance-based outcomes; (2) Reduction of clinical variations; and (3) Coordination of Care.

The criteria for article selection included studies that supported value-based care principles and that support this inquiry into the advancements in substance abuse treatment that leads to the right approach of treating clients base on outcomes, rather than solely a singular approach of treating substance abuse disorders.

Topic	Keywords	Results Yield	Selecte d for Review	Summary
1. Measurement of Performance-based Outcomes	"Treatment Outcomes" AND "Alcohol Use Disorder"	1,488	4	Interventions for Alcohol Use Disorder result in a variety of treatment outcomes that are dependent upon severity of the diagnosis and range of demographic variables. EHRs that track measureable outcomes such as patient compliance, evidence-based practices, rates of relapse (Dauber et al., 2018; Rogal et al., 2020).

Topic	Keywords	Results Yield	Selected for Review	Summary
2. Reduction of Clinical Variations	Unwarranted variations	55	4	Unwarranted clinical variations that negatively impact treatment outcomes and/or result in inefficiencies should be identified and eliminated. EHR systems should be designed to track trends over time and report out on treatment outcome data (Gray et al., 2020).  Demographic characteristics have been shown to correlate to variations in healthcare costs. EHR systems should be designed to track demographic variables such as age and race (Kelley et al., 2018).  EHR systems that document consistent, evidence-based protocols for a range of disorders and treatment settings provides effective clinical pathways resulting in better compliance and the delivery of high value behavioral healthcare (Frimpong et al., 2023; Runnels et al., 2020).

Topic	Keywords	Results Yield	Selected for Review	Summary
3. Care Coordination among Providers	"Coordination of Care" AND "Behavioral Health"	293	6	Care coordination among providers is important in delivering person-centered treatment that is effective in improving provider efficiencies. Supported by EHR documentation, providers can collaborate more efficiently, which may reduce redundancy in work effort and aiding in the overall care management of people with complex care needs (Bruns et al., 2018; Howren et al., 2022; Rogal et al., 2020; Shepherd-Banigan et al., 2017).

## Results

### Measurement of Performance-based Outcomes

Tracking and monitoring of treatment outcomes have demonstrated effects for moving the field of substance use treatment forward. Using EHR data, providers can more effectively track patient compliance and monitor effectiveness of treatment interventions (Dauber et al., 2018). Studies on treatment outcomes for Alcohol Use Disorder, for example, show variability in the efficacy of treatment protocols based on gender, veteran status, and social contexts. (Dauber et al., 2018; Rogal et al., 2020). To achieve successful clinical outcomes, EHRs should be designed to capture demographic variables such as age, gender, veteran's status, as well as social determinants of health that impact mental health (Kirkbride et al., 2024).

### Reduced Clinical Variations

Research done in non-behavioral healthcare settings has indicated a prevalence of clinical variations across all settings, including acute and chronic care specialties, as well as primary care and hospital settings (Sutherland and Levesque, 2019). Therefore, developing consistent, evidence-based protocols for a range of disorders and treatment settings are important considerations when building out EHR systems. Not only do they provide clarity for clinicians and supervisors, but they provide a structured and reliable framework upon which educators and clinicians can rely to deliver high value behavioral healthcare that meets client service needs (Runnels et al., 2020).

Clear clinical pathways and well-defined EHR workflows have been shown to increase a clinician's willingness to learn and use a robust EHR with complex elements within substance use disorder treatment (Frimpong et al., 2023). To achieve successful adoption, data suggests that a multi-phased adoption approach, coupled with comprehensive staff training, may provide the best likelihood of clinician engagement.

### Coordination of Care

Coordination of Care across a range of treatment settings and care providers has the potential to be facilitated by technology (Bruns et al., 2016; Howren et al., 2022). EHRs documentation has been shown to help improve care coordination among providers, which may help to improve access to care and achieve health equity (Shepherd-Banigan et al., 2017).

Alcohol Use Disorder is one example of a highly undiagnosed disorder, in which care coordination among providers can be a valuable precursor to diagnosis and effective treatment. (Rogal et al., 2020). Clinically integrated care teams, such as the IBH Model proposed by the Centers for Medicare and Medicaid Services (CMS), are working to establish a person-centered approach to health care that integrates behavioral and physical medicine/health.

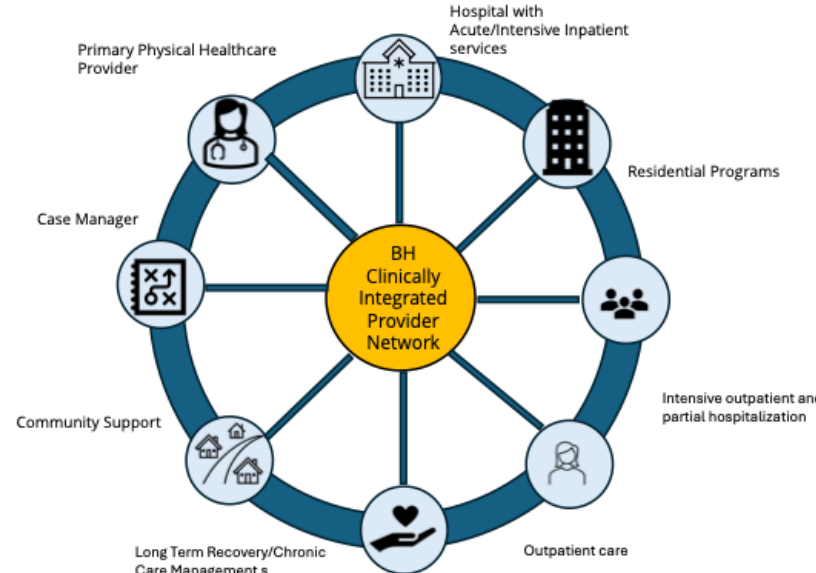
## Clinically Integrated Care Team

Teams designed to produce value in care delivery

CICs promote systems to organize and integrate care longitudinally across a clinical service line and provides for VBC contracting opportunities; it is a diverse team created to address the biological, psychological, and social needs of a patient

Create value for participating practices and services lines by reducing the cost of care, managing utilization, and proving quality performance

Participating providers share in the provider network's overall performance aligned with value-based contracts



## Conclusion

Electronic Health Records (EHRs) are valuable tools that clinicians and providers can use to effectively treat and manage the overall health and wellbeing of their clients and patients. Thoughtfully developed EHR systems, developed in collaboration with direct service providers, should include structured data fields that capture demographic variables, social determinants of health data, and health and treatment outcomes, which are important drivers of the successful implementation of value-based payment models.

The findings indicate that the behavioral health system is progressing toward payment reforms that prioritize quality and care coordination over quantity and siloed care. These insights have implications for policy development, enhanced health care screening protocols, and the structuring of integrated health care services.

Social determinants of health and health equity play an important role in advances within the healthcare system. As Federal agencies, such as CMS, work toward incentivizing behavioral health providers based on the quality of care that is provided, supported by clearly documented outcomes, behavioral health providers will be tasked with implementing technological infrastructure that shows a clear connection between the treatment provided and improved outcomes.

Substantial gaps in the evidence base remains, however, necessitating further research to address barriers to adoption across a range of treatment settings and care providers. Future research should also focus on EHR systems' impact on behavioral health practice, process, and client outcomes, as well as focus on reducing clinical variations across behavioral health settings, and with regard to diagnosis and treatment.

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