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From Launch to Institutional Integration: Low-Cost Implementation of an Integrated Addiction Medicine–Psychiatry Bridge Clinic in a Large Academic Health System Using RE-AIM

Nathaniel Kratz

nk2864@cumc.columbia.edu

Columbia University Irving Medical Center

Ronald R. Sanchez

NewYork–Presbyterian Hospital

Caroline Cummings

NewYork–Presbyterian Hospital

Rebecca Leeds

Columbia University Irving Medical Center

Nicholas Blair

Columbia University Irving Medical Center

JC Alejaldre

NewYork–Presbyterian Hospital

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Abstract

Background

Hospitalizations and emergency department encounters represent critical opportunities to engage patients with substance use disorders (SUD), yet initiation of evidence-based treatment during these transitions remains inconsistent. Low-barrier bridge clinics have emerged to improve access to rapid treatment and continuity of care; however, limited evidence describes how these programs are implemented, integrated, and sustained within large academic health systems. The Therapeutic Resources and Assistance in Navigation to Services while in Transition (TRANSiT) Bridge Clinic was developed in response to community-identified gaps in addiction and behavioral health care and integrates Addiction Medicine and Addiction Psychiatry within a multidisciplinary transitional care model. Guided by the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework, we evaluated the implementation, early outcomes, and institutional integration of TRANSiT within a large academic health system.

Methods

We conducted a mixed-methods implementation evaluation of the TRANSiT Bridge Clinic during the first 18 months following program launch (May 1, 2024–October 31, 2025). We assessed early implementation, adoption, and indicators of maintenance. Quantitative data included referral patterns, patient characteristics, medication initiation, laboratory monitoring, visit completion, and provider survey responses. Qualitative data consisted of open-ended provider survey responses used to assess organizational readiness, provider perceptions, perceived barriers to treatment delivery, and implementation context prior to clinic launch.

Results

Reach: Over an 18-month period, the clinic served 432 unique patients and received 1,290 referrals, primarily from the inpatient units (66.2%) and emergency department (18.7%). The cohort was predominantly Latino (60.6%) and Medicaid-insured (61.6%), with a high burden of medical and psychiatric comorbidity (e.g., liver disease 18.8%, hypertension 18.3%, anxiety disorders 10.0%). Effectiveness: Fifty-four percent of patients were prescribed medication for treatment, with 69.2% initiated at the first visit. Among patients with alcohol use disorder and follow-up biomarker testing, 51.3% demonstrated improvement. Adoption: Referrals came from multiple hospital campuses, and 95 trainees from multiple graduate medical education programs rotated through the clinic in year one. Pre-implementation provider surveys showed that providers broadly endorsed medication treatment but did not feel prepared to deliver it: 73% of hospitalists reported feeling somewhat or extremely inadequate to provide medication for opioid use disorder. Implementation: The clinic launched using repurposed clinical space and limited new staffing, and brought Addiction Medicine, Addiction Psychiatry, and

Infectious Diseases expertise together within a single transitional setting. Maintenance: Early indicators included formal incorporation into the hospital budget, growth in patient and visit volume, faculty recruitment, and service expansion.

Conclusions

A multidisciplinary bridge clinic integrating Addiction Medicine and Addiction Psychiatry can be implemented within a large academic health system and showed early indicators of sustainability through strategic use of existing clinical, educational, and operational infrastructure. By extending bridge care beyond medication initiation to coordinated management of medical, psychiatric, and social complexity, this model demonstrates a scalable approach for expanding access to evidence-based substance use disorder treatment while addressing community-identified needs.

Background

Substance use disorders (SUD), including opioid use disorder (OUD) and alcohol use disorder (AUD), remain major contributors to preventable morbidity and mortality in the United States. [1,2] Hospitalizations and emergency department (ED) encounters represent critical opportunities to engage individuals with SUD who may otherwise have limited contact with healthcare services. [3,4] Despite strong evidence supporting medication treatment for opioid and alcohol use disorders, initiation of evidence-based treatment during or immediately following hospitalization remains inconsistent. [5,6] Many general medicine providers endorse medication treatment conceptually yet report limited confidence, insufficient support, and structural barriers to prescribing. [3]

In response, hospital-linked “bridge clinic” models have emerged as low-barrier transitional care models designed to connect patients from acute care settings to medication treatment.[7,8] These programs provide rapid access to same-day medication initiation, coordinated linkage to longitudinal care, and multidisciplinary support in primary care following inpatient or ED referral, thereby expanding primary care capacity to address SUD.[7,9] Evidence shows that bridge clinic models improve treatment initiation and early engagement among patients with SUD.[8,10] However, much of the existing literature focuses on clinical outcomes or early program launch, with comparatively limited attention to the organizational and operational factors required to sustain bridge clinics within large health systems, such as implementation processes, startup feasibility, institutional integration, and sustainability.[7–9] In particular, there is limited evidence describing how such programs are integrated into existing clinical infrastructure, financed beyond pilot phases, staffed within resource constraints, or embedded within graduate medical education and multidisciplinary specialties (e.g., addiction medicine and addiction psychiatry).[4,10–12]

Equally important, little is known about the health system conditions that influence adoption and diffusion of substance use disorder services, including organizational readiness, provider perceptions,

leadership engagement, and implementation climate.[13,14,23] Understanding these factors are essential for translating successful pilot programs into durable clinical services capable of addressing ongoing gaps in addiction care.

NewYork-Presbyterian (NYP), one of the largest academic health systems in the United States, serves diverse populations across New York City and Westchester County through its partnerships with Columbia University Irving Medical Center (CUIMC) and Weill Cornell Medicine (WCM) across a network of hospitals, ambulatory practices, and community-based programs. As part of its commitment to population health and health equity, NYP conducts a triennial Community Health Needs Assessment (CHNA) to identify priority health concerns and guide system-wide programming.

The 2025–2027 CHNA identified substance use disorders, mental health conditions, and gaps in coordinated behavioral healthcare as major community health priorities, particularly in historically underserved neighborhoods in Upper Manhattan and the Bronx. [15,16] Community and stakeholder data highlighted substance use as a top concern for both adults (43%) and youth (59%), alongside substantial unmet need for accessible behavioral health services and care coordination. [16] These challenges were especially pronounced in neighborhoods such as Washington Heights and Inwood in Manhattan and University Heights in the Bronx, where residents experience disproportionate burdens of substance use–related morbidity, structural inequities, and barriers to accessing longitudinal behavioral health care. [16] To address these priorities, the Division of Community and Population Health (DCPH) leads implementation of NewYork-Presbyterian's Community Service Plan (CSP), coordinating programs that improve health outcomes, advance health equity, and address the needs of high-risk populations through clinical and community partnerships. [17]

The TRANSiT (Therapeutic Resources and Assistance in Navigation to Services while in Transition) Bridge Clinic was developed as part of the CSP efforts. [17] TRANSiT was designed as a health system-integrated, low-barrier addiction care model focused on patients transitioning from inpatient and emergency settings to outpatient treatment. The clinic provides multidisciplinary addiction medicine and psychiatric services within a primary care-based bridge model, with the goals of improving continuity of care, expanding access to evidence-based treatments, and reducing fragmentation across care settings. [17]

Located on the CUIMC campus in Washington Heights, TRANSiT serves patients across Upper Manhattan and the Bronx, communities that experience disproportionately high burdens of opioid- and alcohol-related morbidity, overdose mortality, polysubstance use, and structural vulnerabilities that contribute to gaps in care and increased reliance on emergency and inpatient services (e.g., poverty, housing instability, and limited access to long-term addiction treatment). [18,19,20] Although physically housed at a single site, the clinic functions as a centralized referral hub for patients identified throughout the NYP system. Structured referral pathways connect inpatient, emergency, ambulatory, and behavioral health settings across six hospital campuses and affiliated partners, enabling coordinated transitions

from acute care to outpatient addiction treatment. The TRANSiT clinic was designed consistent with established models of care coordination and transitional care for individuals with SUD. [21,22]

Despite the growing use of bridge clinic models, evidence describing how these programs are implemented, integrated, and sustained within large academic health systems remains limited. To address this gap, we evaluated the implementation and early outcomes of the TRANSiT Bridge Clinic, a health system-integrated multidisciplinary addiction care model serving patients with substance use disorders transitioning from inpatient and emergency settings to outpatient treatment across a large academic health system serving Upper Manhattan and the Bronx in New York City.

Guided by the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework, we examined the program's early performance across implementation and patient-centered domains.[14,24] Organizational factors, including readiness, leadership engagement, and resource availability, were explored within the Adoption and Implementation domains. This approach enabled assessment of the factors supporting program development, uptake, and early institutional integration within a large academic health system.[13,14,25,26]

By examining how a multidisciplinary bridge clinic progressed from implementation to early institutional integration, this study contributes implementation-focused evidence to the addiction services literature and offers practical guidance for health systems seeking to expand access to evidence-based addiction treatment by developing sustainable models of transitional addiction care.

Methods

Study Design and Setting

We conducted a mixed-methods implementation evaluation of the TRANSiT Bridge Clinic during the first 18 months following program launch (May 1, 2024–October 31, 2025).

TRANSiT Clinic Model and Care Team

Figure 1 summarizes the TRANSiT model and distinguishes who is part of the clinic from the settings that refer to it and the trainees who rotate through it. The core clinical team comprised Addiction Medicine and Family Medicine physicians, Addiction Psychiatry, clinical social work, and care coordination and peer support staff. Infectious Diseases expertise was added through fellowship rotation and subsequent faculty recruitment. Residents from Internal Medicine, Family Medicine, Psychiatry, and Obstetrics and Gynecology, as well as Addiction Psychiatry fellows, rotated through the clinic as graduate medical education (GME) trainees; they were not part of the core clinical team and were excluded from patient-level denominators. Patients were referred from inpatient, emergency, outpatient, and community settings through a centralized electronic referral pathway placed in the medical record and were transitioned to longitudinal care as clinically appropriate.

Patient Selection

Patients with a diagnosis of SUD were referred to the TRANSiT Bridge Clinic through a centralized electronic referral process available to physicians and advanced practice providers across inpatient, emergency, and outpatient settings within the health system. Following referral, clinic care coordinators conducted outreach to assess patient interest, provide program information, and facilitate appointment scheduling. The final analytic cohort included adult patients who completed at least one TRANSiT clinic visit during the study period. Patients who were referred but could not be reached, declined services, did not schedule an appointment, or did not complete an initial visit were excluded from the analytic cohort.

Trainee Participants

For analyses of graduate medical education (GME) adoption, trainee participants included second- and third-year residents from Family Medicine, Internal Medicine, Psychiatry, and Obstetrics and Gynecology, as well as Addiction Psychiatry fellows. Trainees were included only in adoption-related analyses and were excluded from patient-level denominators.

Data Sources

Patient-Level Data

Patient-level data were extracted from the Epic® electronic health record (EHR) and reflected documentation generated during routine clinical care. Data included demographic and clinical characteristics, referral source, appointment scheduling and completion, visit modality, medication prescribing, and laboratory utilization.

Administrative Data and Program Records

Administrative and program records were reviewed to characterize clinic operations and implementation processes. Information collected included clinic schedules, staffing models, timelines of session expansion, organizational support, and budget integration to inform analyses of implementation and maintenance. Records were also used to document referral and care workflows, educational outreach activities (e.g., noon conferences, didactic sessions, and grand rounds), no-show outreach protocols, telehealth integration, and other program adaptations implemented during clinic development and growth. These data provided operational and qualitative context for understanding program implementation, evolution, and early sustainability.

Provider Surveys

Prior to the launch of the TRANSiT Bridge Clinic, pre-implementation surveys were administered in October 2023 to hospitalists (n = 15) and ambulatory primary care clinicians (n = 27). Surveys assessed attitudes toward opioid use disorder treatment, prior prescribing experience, perceived preparedness to provide treatment, and structural barriers to care. The instruments included closed-ended Likert-scale items and open-ended response fields. Survey findings were analyzed descriptively to inform assessments of organizational readiness and implementation context and were not treated as results from validated research instruments.

Implementation Science Framework

The RE-AIM framework guided the selection and organization of evaluation measures across patient, provider, program, and organizational levels.[14,24,27]

- Reach was characterized by the demographic, clinical, and social characteristics of patients served, including substance use diagnoses, psychiatric comorbidities, medical complexity, and social determinants of health.
- Effectiveness was assessed using referral volume and sources, timeliness of access, visit utilization, medication initiation and prescribing patterns, and objective treatment monitoring measures, including phosphatidylethanol (PEth) testing for patients with alcohol use disorder and buprenorphine metabolite testing for patients with opioid use disorder.
- Adoption was evaluated at the clinical, educational, and organizational levels through referral activity across care settings, trainee engagement, and indicators of institutional support. Implementation was characterized by program delivery, including staffing models, workflow development, care coordination processes, telehealth integration, harm reduction services, no-show management strategies, educational outreach, and operational adaptations over time.
- Maintenance was assessed through indicators of early sustainability, including sustained patient volume, continued operations, faculty recruitment, budget integration, and service expansion.

Together, these measures provided a comprehensive assessment of program performance and institutional integration during the first 18 months of operation. RE-AIM measures and operational definitions are provided in Table 1: RE-AIM Measures.

Table 1
RE-AIM Measures

RE-AIM Domain	Measure	Definition
Reach	Cohort	Unique patients with at least 1 completed visit during the reporting period
	Cross-section	Patients were assigned 1, 2, or 3 based on date of their first completed visit within the reporting period 1 = Visit within first 6 months (May 2024 – October 2024) 2 = Visit by the end of the 12-month period (November 2024 – April 2025) 3 = Visit by the end of the 18-month period (May 2025 – October 2025)
	Age	Age at time of first completed clinic visit. Age was categorized using NIH-consistent groupings (18–24, 25–44, 45–64, and ≥ 65 years) to reflect clinically meaningful differences in substance use risk and healthcare utilization.
	Race	Race categorized using NIH-consistent groupings
	Primary Language	Primary language documented for the patient
	Sex	Sex assigned at birth
	Insurance	Most recent documented primary insurance on the patient's medical record.
	Social Determinants of Health	Housing Need: Patient answered Yes to at least one of SDOH screening questions related to Housing Instability Food Need: Patient answered Often True or Sometimes True to at least one of SDOH screening questions related to Food Insecurity Transportation Need: Patient answered Yes to at least one of SDOH screening questions related to Transportation
	Neighborhood	Neighborhood groupings are based on community district zoning. Limited to NYC zip codes
	Substance Use Diagnosis	Total patients by substance use diagnosis. Groupers were identified using a validated list of ICD-10 codes. These results are not mutually exclusive, as patients can have multiple substance use diagnoses. ICD-10 Groups include Alcohol, Opioids, Cannabis, Sedatives, Cocaine, Stimulants, Hallucinogens, Nicotine, Inhalants, Other/Multiple This larger list of substance use diagnosis groupers was rolled up to the categories shown in the final table: Alcohol

RE-AIM Domain	Measure	Definition
		Use Disorder (AUD), Opioid Use Disorder (OUD), Any polysubstance use (excluding AUD/OUD), Both AUD/OUD
	Psychiatric diagnoses	Total count of patients with specified categories of mental, behavioral and neurodevelopmental diagnoses based on ICD-10 grouping methodology. This list was expanded to include groupings for maternal or postpartum depression diagnoses as well as suicidal ideation. These results are not mutually exclusive, as patients can have co-occurring mental health diagnoses.
	Medical Comorbidities	Total patients with chronic conditions based on the Elixhauser Comorbidity Index, a risk adjustment tool that identifies comorbid conditions using ICD-10 Codes. Identifying patients with pre-existing medical comorbidities is crucial for assessing each patient's complexity of care while treating their substance use disorder.
Effectiveness	Total Referrals	Total count of referral orders to the TRANSiT clinic. This does not reflect unique patients since patients can be referred multiple times and by different providers.
	Referral Source	Location of the referral, such as inpatient, ED, or outpatient setting.
	Turnaround time from referral to first scheduled visit	Days between most recent referral to TRANSiT clinic and first scheduled visit in the clinic. Indicates timeliness of appointment scheduling from time of referral.
	Total visits during study period	Count of completed visits during study period for each patient
	Prescribed medication for addiction treatment	Total patients who were prescribed Medications for Alcohol Use Disorder (MAUD) and/or Medications for Opioid Use Disorder (MOUD) during TRANSiT visit.
	Initiated medication at first visit	Patients with AUD/OUD who were prescribed MAUD/MOUD respectively during their first TRANSiT clinic visit
	Medications	Count of patients prescribed specific MAUD/MOUD by type. These totals are not mutually exclusive, as patients can be prescribed multiple MAUD/MOUD.
	Patients with AUD	Count of patients diagnosed with Alcohol Use Disorder (AUD).
	PEth lab ever collected	Of patients with diagnosed AUD, how many had at least one Phosphatidylethanol (PEth) lab collected during the study period. This lab helps clinicians objectively assess recent alcohol consumption, pattern and intensity of use, and treatment adherence. Categorical measures are as follows: Not Detected (Abstinence) → < 20 ng/mL

RE-AIM Domain	Measure	Definition
		Low-Light Alcohol Use → 20–50 ng/mL Moderate Use → 50–200 ng/mL Heavy-Chronic Use → > 200 ng/mL
	At least one follow-up PEth	Total patients who had more than one PEth lab recorded during the study period. This serves as the inclusion criteria for evaluating changes in PEth levels. When assessing improvements in PEth levels, the change between the first lab to the most recent follow-up lab was evaluated to account for patients who had more than one follow-up lab during the study period. Change = [(Most Recent PEth Value - First PEth Value) / First PEth Lab value] * 100
	Improved PEth levels	Total patients who saw improvement in PEth levels
	No change	Total patients with no change in PEth levels
	Worsened	Total patients who saw worsening in PEth levels
	Patients with OUD	Count of patients diagnosed with Opioid Use Disorder (OUD)
	Prescribed buprenorphine	Total patients diagnosed with OUD who were prescribed buprenorphine during the study period
	Buprenorphine metabolite lab collected	Total patients diagnosed with OUD who were prescribed buprenorphine who had at least one Buprenorphine metabolite lab collected during the study period. A buprenorphine metabolite lab is most useful for confirming medication adherence, assessing proper use, and detecting misuse/diversion.
	At least one follow-up lab	Total patients who had more than one buprenorphine metabolite lab, allowing for comparison between first capture and most recent. Adherence indicates that the patient is taking medications as prescribed and is properly ingesting and metabolizing. Naloxone levels are within range (< 100) AND Buprenorphine or Norbuprenorphine > 2 OR Buprenorphine Glucose or Norbuprenorphine Glucose levels > 5
	Adherent → Adherent	Total patients who have stayed adherent since medication initiation.
	Non-adherent → Adherent	Total patients whose first lab indicated non-adherence or adulteration and whose most recent lab indicated adherence.
	Adherent → Non-adherent	Total patients whose first lab indicated adherence and whose most recent lab indicated non-adherence or

RE-AIM Domain	Measure	Definition
		adulteration.
^ Limited to patients with Alcohol Use Disorder who have at least 2 PEth values recorded during the reporting period		
** Limited to patients with Opioid Use Disorder who were prescribed Buprenorphine and have at least 2 Buprenorphine Metabolite labs recorded during the reporting period*		

Organizational context influencing implementation and early institutional integration, including implementation climate, readiness for change, leadership engagement, resource availability, access to knowledge and information, provider self-efficacy, and perceived barriers to care, was described within the RE-AIM Adoption and Implementation domains using the pre-implementation provider surveys and administrative and program records.[23]

Analysis Plan

Analyses were primarily descriptive and consistent with the study's implementation-focused evaluation design. Patient characteristics, program utilization metrics, and provider survey responses were summarized using counts and proportions. Temporal trends in clinic operations and service delivery were examined using monthly summaries. Laboratory-based outcome analyses were restricted to patients with at least two measurements, enabling evaluation of changes from baseline to the most recent follow-up assessment.

Results

Reach: Characteristics of TRANSiT Population – Demographics, Clinical, Treatment, and Utilization

In this section, we describe the characteristics of the patient population reached by TRANSiT, including demographic, clinical, social, and referral patterns that reflect the program's reach across diverse populations with substantial medical, psychiatric, and social needs.

During the 18-month evaluation period, the TRANSiT Bridge Clinic received 1,290 referrals for 1,022 unique patients (Fig. 2). Patient-level analyses were limited to the 432 unique adult patients who completed at least one clinic visit and comprised the analytic cohort. Nearly half of participants (47.2%) initiated care during the final six months of the study period.

As shown in Table 2, the patient population served by the TRANSiT Bridge Clinic had substantial clinical and social complexity, reflected by a high burden of psychiatric and medical comorbidities (the latter identified using the Elixhauser Comorbidity Index) and frequent social needs. Most patients were between 25 and 64 years of age (86.3%), while 12.0% were aged 65 years or older and 1.6% were aged 18–24 years. The cohort was predominantly Hispanic (all races) (60.6%), followed by non-Hispanic

Black/African American (16.2%), non-Hispanic White (13.9%), other or declined to report race/ethnicity (8.3%), and non-Hispanic Asian American/Pacific Islander (0.9%). Nearly one-third of patients (28.2%) reported Spanish as their primary language, and 73.6% were male. Most patients were insured through Medicaid (61.6%). Social needs were common, with 31.7% screening positive for housing instability, 38.2% for food insecurity, and 19.9% for transportation needs. Nearly half of patients resided in the Inwood and Washington Heights neighborhoods, while 8.6% lived in Bronx Park and Fordham and 6.7% resided in the Central Bronx.

Table 2
Baseline Characteristics of Patients Seen in the TRANSiT Bridge Clinic

Characteristic (N = 432)	Group	n (%)
Age	Age 18–24 years	7 (1.6)
	Age 25–64 years	373 (86.3)
	Age ≥ 65 years	52 (12.0)
Race/Ethnicity	Hispanic (All Races)	262 (60.6)
	Black or African American, non-Hispanic	70 (16.2)
	White, non-Hispanic	60 (13.9)
	Other or Declined to Say	36 (8.3)
	Asian American/Pacific Islander, non-Hispanic	4 (0.9)
Primary Language	English	302 (69.9)
	Spanish	122 (28.2)
	Other	8 (1.9)
Sex	Male	318 (73.6)
	Female	114 (26.4)
Insurance	Medicaid	266 (61.6)
	Commercial	78 (18.1)
	Medicare	66 (15.3)
	Uninsured/Self-pay	22 (5.1)
Social Determinants of Health	Housing Instability	137 (31.7)
	Food Insecurity	165 (38.2)
	Transportation Need	86 (19.9)
Neighborhood	Inwood & Washington Heights	218 (50.5)
	Bronx Park & Fordham	37 (8.6)
	Central Bronx	29 (6.7)
	Central Harlem	26 (6.0)
	High Bridge & Morrisania	24 (5.6)
Substance Use Diagnoses	Alcohol Use Disorder (AUD)	256 (59.3)

**Categories are not mutually exclusive; percentages may exceed 100%.*

Characteristic (N = 432)	Group	n (%)
	Opioid Use Disorder (OUD)	81 (18.8)
	Any Polysubstance Use	76 (17.6)
	Both AUD and OUD	14 (3.2)
Substance Used	Alcohol	256 (59.3)
	Opioids	81 (18.8)
	Polysubstance	76 (17.6)
	Cocaine	40 (9.3)
	Nicotine	29 (6.7)
	Cannabis	12 (2.8)
	Sedatives	5 (1.2)
	Stimulants	2 (0.5)
	Hallucinogens	1 (0.2)
Psychiatric Diagnoses	Anxiety disorders	43 (10.0)
	Depression	35 (8.1)
	Bipolar disorder	24 (5.6)
	Suicidal ideation	11 (2.5)
	Attention deficit hyperactivity disorder (ADHD)	8 (1.9)
	Schizoaffective disorder	6 (1.4)
	Personality disorders	5 (1.2)
	Schizophrenia	5 (1.2)
	Unspecified mental disorder	3 (0.7)
	Maternal/Postpartum depression	2 (0.5)
	Tic disorders	1 (0.2)
Medical Comorbidities	Liver disease	81 (18.8)
	Hypertension	79 (18.3)
	Diabetes	46 (10.6)
	Psychoses/Depression flag	44 (10.2)

**Categories are not mutually exclusive; percentages may exceed 100%.*

Characteristic (N = 432)	Group	n (%)
	Congestive heart failure	34 (7.9)
	Obesity	32 (7.4)
	Chronic pulmonary disease	31 (7.2)
	Anemia	25 (5.8)
	Other neurological disorders	25 (5.8)
	Peripheral vascular disorders	16 (3.7)
	Cardiac arrhythmias	14 (3.2)
	Cancer	11 (2.5)
	Hepatitis C (antibody positive)	45 (10.4)
	Chronic hepatitis C (detectable RNA)	20 (4.6)
	Renal failure	9 (2.1)
	Weight loss	6 (1.4)
	AIDS/HIV	22 (5.1)
	Hypothyroidism	5 (1.2)
	Paralysis	5 (1.2)
	Rheumatoid arthritis/collagen vascular disease	4 (0.9)
	Chronic hepatitis B	3 (0.7)
	Valvular disease	3 (0.7)
	Coagulopathy	2 (0.5)
	Lymphoma	2 (0.5)
	Pulmonary Circulation Disorders	1 (0.2)
**Categories are not mutually exclusive; percentages may exceed 100%.*		

Alcohol use disorder (AUD) was the most common substance use diagnosis (59.3%), followed by opioid use disorder (OUD) (18.8%) and polysubstance use (17.6%), including a subset of patients with co-occurring AUD and OUD (3.2%). Among specific substances, alcohol was the most frequently reported (59.3%), followed by opioids (18.8%), polysubstance use (17.6%), cocaine (9.3%), nicotine (6.7%), cannabis (2.8%), sedatives (1.2%), stimulants (0.5%), and hallucinogens (0.2%). The distribution of all substance use diagnoses and substances used is also presented in Table 2.

Psychiatric comorbidities were common and included anxiety disorders (10.0%), depression (8.1%), bipolar disorder (5.6%), and a history of suicidal ideation (2.5%). Less frequently observed conditions included attention-deficit/hyperactivity disorder (ADHD) (1.9%), schizoaffective disorder (1.4%), personality disorders (1.2%), unspecified mental disorders (0.7%), postpartum depression (0.5%), and tic disorders (0.2%). Medical comorbidities were also prevalent, particularly liver disease (18.8%), hypertension (18.3%), diabetes (10.6%), and AIDS/HIV (5.1%). A comprehensive list of psychiatric and medical comorbidities is provided in Table 2.

During the study period, the clinic received 1,290 referral orders representing 1,022 unique patients. Most referrals originated from inpatient adult medicine services (66.2%), followed by emergency departments (18.7%) and outpatient primary care settings (15.1%). Referrals were received from six NewYork-Presbyterian campuses, as well as outpatient providers, community physicians, community-based organizations, and the New York State Psychiatric Institute, demonstrating broad adoption across clinical and community care settings.

The types of providers involved in patient care reflected the clinic's multidisciplinary care model, with completed visits spanning Addiction Medicine (41.3%), Social Work (26.4%), Addiction Psychiatry (25.9%), and Care Coordinators/Peer Specialists (6.0%).

Effectiveness: Access, Treatment Engagement, and Early Clinical Indicators

In this section, we describe early indicators of program effectiveness, including access to care, treatment engagement, medication initiation, service utilization, and clinical outcomes.

Access and Visit Engagement

Among patients with referral and scheduling data available, 34.5% were scheduled within 7 days of referral and an additional 24.3% within 8–14 days (Table 3). During the study period, 2,838 visits were completed or scheduled, of which 1,844 (65.0%) were completed and 994 (35.0%) were no-show visits. Among completed visits, 84.3% were conducted in person and 15.6% were delivered via telehealth, reflecting use of both in-person and virtual care modalities.

Table 3
Effectiveness Outcomes During the First 18 Months of TRANSiT Clinic Operations

Measure	**n**	**%**
Unique Patients	432	—
Total referrals*	1,290 referrals	—
Inpatient referrals	854	66.2% of referrals
Emergency department referrals	241	18.7% of referrals
Outpatient referrals	195	15.1% of referrals
Time from referral to first scheduled visit		—
0–7 days	149	34.5% of all patients
8–14 days	105	24.3% of all patients
15–21 days	33	7.6% of all patients
22–31 days	10	2.3% of all patients
> 1 month	16	3.7% of all patients
Referral-to-visit interval unavailable	119	27.5% of all patients
Total visits during study period	2,838	—
Completed visits	1,844	65.0% of total visits
No-show visits	994	35.0% of total visits
In-person visits	1,554	84.3% of completed visits
Telehealth visits	288	15.6% of completed visits
Provider Types (Number of Visits)		
Addiction Medicine	762	41.3% of completed visits
Social Work	486	26.4% of completed visits
Addiction Psychiatry	477	25.9% of completed visits
Care Coordinators/Peer Specialist	110	6.0% of completed visits
Prescribed medication for addiction treatment (MAUD/MOUD) ^	234	54.2% of all patients
Initiated medication at first visit	162	69.2% of patients prescribed MAUD/MOUD
Medication		

Measure	n	%
Naltrexone	153	65.4% of patients prescribed MAUD/MOUD
Buprenorphine	55	23.5% of patients prescribed MAUD/MOUD
Gabapentin	43	18.4% of patients prescribed MAUD/MOUD
Acamprosate	40	17.1% of patients prescribed MAUD/MOUD
Nicotine replacement therapy	19	8.1% of patients prescribed MAUD/MOUD
Naloxone	16	6.8% of patients prescribed MAUD/MOUD
Bupropion	8	3.4% of patients prescribed MAUD/MOUD
Disulfiram	5	2.1% of patients prescribed MAUD/MOUD
Topiramate	4	1.7% of patients prescribed MAUD/MOUD
Varenicline	3	1.3% of patients prescribed MAUD/MOUD
Laboratory Monitoring among Patients with AUD		
Patients with AUD	256	59.3% of all patients
Had an initial PEth lab collected	140	54.7% of AUD
At least one follow-up PEth lab collected after initial lab test	76	54.3% of those with an initial PEth lab
Improved PEth levels	39	51.3% with at least one follow-up PEth lab
No change	11	14.5% with at least one follow-up PEth lab
Worsened	26	34.2% with at least one follow-up PEth lab
Laboratory Monitoring among Patients with OUD		
Patients with OUD	81	18.8% of all patients
At least one buprenorphine prescription	55	67.9% of OUD patients
Had an initial buprenorphine metabolite lab collected	42	76.4% of those prescribed buprenorphine
At least one follow-up buprenorphine metabolite lab collected after initial lab test	25	59.5% of those tested with at least one follow-up buprenorphine metabolite lab collected
Buprenorphine Metabolite Lab Results: Initial to Follow-Up		

Measure	n	%
Adherent → Adherent	21	84.0% of patients with follow-up buprenorphine metabolite testing
Non-adherent → Adherent	2	8.0% of patients with follow-up buprenorphine metabolite testing
Adherent → Non-adherent	2	8.0% of patients with follow-up buprenorphine metabolite testing

** Referral counts reflect referral orders rather than unique patients, as individual patients could receive multiple referral orders.*

^ Medication categories are not mutually exclusive; patients may have been prescribed more than one medication during the study period.

Medication Initiation and Treatment

More than half of patients (54.2%, n = 234) were prescribed at least one medication for addiction treatment (MAT) during the study period (Table 3). Among treated patients, 69.2% initiated medication at their first clinic visit, consistent with the clinic's rapid-access model. Naltrexone, including oral and extended-release formulations, was the most frequently prescribed medication (65.4% of treated patients), followed by buprenorphine (23.5%), gabapentin (18.4%), and acamprosate (17.1%).

Alcohol Use Disorder Monitoring

Among patients with alcohol use disorder (AUD; n = 256), 140 (54.7%) underwent at least one phosphatidylethanol (PEth) test during the study period. Of the 76 patients with follow-up PEth testing, 51.3% demonstrated improvement in biomarker levels, 14.5% showed no change, and 34.2% demonstrated worsening levels between the initial and most recent assessment (Table 3).

Opioid Use Disorder Monitoring

Among patients with opioid use disorder (OUD) who were prescribed buprenorphine (n = 55), 42 (76.4%) underwent at least one buprenorphine metabolite test. Among those, 25 patients had a follow-up test (59.5%), of which 84.0% remained adherent to treatment over time. Of the remaining patients, 8.0% transitioned from non-adherent to adherent status following clinical intervention, while 8.0% transitioned from adherent to non-adherent status at follow-up (Table 3).

Adoption: Provider Perceptions and Organizational Readiness for OUD Treatment

In this section, we describe the adoption of TRANSiT across provider readiness and perceptions, organizational engagement, and support within the health system.

Organizational Readiness and Provider Perceptions

To assess baseline readiness for implementation, surveys were administered to hospitalists (n = 15) and ambulatory primary care clinicians (n = 27) prior to clinic launch (Table 4). Findings demonstrated strong conceptual support for medications for opioid use disorder (MOUD) alongside limited perceived preparedness and structural support for treatment delivery. Providers largely believed that medication treatment was appropriate and effective, but many did not feel adequately prepared or supported to deliver it themselves, indicating a readiness gap that the TRANSiT model and its outreach strategy were designed to address.

Table 4
Pre-Implementation Provider Perceptions and Organizational Readiness for OUD Treatment Adoption

Inpatient Hospitalists (n = 15)		
Measure	**n**	**%**
Strongly agree inpatient setting appropriate for OUD treatment	9	60%
Somewhat agree inpatient appropriate	5	33%
Strongly agree medication is more effective than no medication	12	80%
Strongly agree interested in SUD consult team	14	93%
Prescribed buprenorphine	8	53%
Feel extremely inadequate to treat OUD	6	40%
Feel somewhat inadequate	5	33%
Report lack of available patient support as barrier	14	93%
Report discomfort managing OUD medications	12	80%
Report lack of experience managing OUD	11	73%
Ambulatory Providers (n = 27)		
Measure	**n**	**%**
Strongly agree primary care appropriate for OUD treatment	18	69%
Strongly agree medication more effective	23	88%
Have prescribed buprenorphine	9	36%
Feel extremely inadequate to treat OUD	5	20%
Feel somewhat inadequate	9	36%
Strongly agree more support would improve comfort	19	76%
Report lack of experience as barrier	17	63%
Report discomfort managing OUD medications	12	44%
Report lack of clinic supports as barrier	16	59%

Among hospitalists, 93% expressed interest in access to a substance use disorder consultation service, while 60% strongly agreed and 33% somewhat agreed that the inpatient setting was an appropriate setting for OUD treatment. Eighty percent strongly agreed that medication treatment is more effective than treatment without medication. Despite this support, 73% reported feeling either extremely or somewhat inadequate in their training and support to provide OUD treatment. Common barriers included

limited patient support resources (93%), discomfort managing medications (80%), and lack of clinical experience managing OUD (73%).

Similar patterns were observed among ambulatory providers. Most respondents strongly agreed that primary care was an appropriate setting for OUD treatment (69%) and that medication treatment is more effective than treatment without medication (88%). However, only 36% reported prior buprenorphine prescribing experience, and 56% reported feeling either extremely or somewhat inadequate in their preparedness to provide OUD treatment. Additionally, 76% strongly agreed that greater access to addiction-focused support services would improve their comfort managing OUD. Open-ended responses suggested perceived low prevalence of OUD within clinic populations and limited patient interest in treatment, indicating potential under-recognition of treatment need.

Outreach, Stakeholder Engagement, and Institutional Support

In response to identified readiness gaps, the TRANSiT team implemented a structured outreach and engagement strategy during the six months surrounding program launch. A total of 33 educational and stakeholder engagement activities were conducted across the health system, targeting physicians, trainees, social workers, care coordinators, administrators, and community behavioral health partners. Activities included grand rounds, noon conferences, didactic sessions, interdisciplinary presentations, and workflow-planning meetings. Educational content focused on evidence-based treatment for opioid and alcohol use disorders, practical prescribing guidance, referral processes, and available multidisciplinary support services.

These efforts were designed to improve access to knowledge and information, strengthen provider self-efficacy, identify implementation barriers, and promote adoption across clinical settings. Parallel outreach to residency programs encouraged incorporation of substance use disorder treatment and bridge-clinic referral pathways into routine discharge planning, reinforcing both individual capability and organizational norms supporting addiction care.

Institutional adoption was further reflected through allocation of underutilized clinical space, moonlighting support for Family Medicine physicians, Department of Psychiatry co-funding for Addiction Psychiatry staffing, reallocation of Program Director effort for fellowship supervision, and presentation of the program to the hospital Board Health Justice Committee as a key response to Community Health Needs Assessment priorities.

Implementation: Program Delivery, Operational Adaptations, and Fidelity

This section describes how the TRANSiT Bridge Clinic was operationalized and delivered during its first 18 months of implementation. Consistent with the RE-AIM implementation domain, we examined operational infrastructures, clinical workflows, multidisciplinary staffing and specialty integration,

graduate medical education participation, and continuous improvement strategies used to refine and adapt the program as needs emerged over time.

Operational Model

The clinic was implemented within existing ambulatory infrastructure using a staffing model that required no major capital investment or physical expansion, combining repurposed faculty effort, institutional support, and existing care coordination resources to deliver services.

Multidisciplinary Staffing and Clinical Integration

TRANSiT was implemented as a multidisciplinary practice staffed by addiction-focused physicians, behavioral health providers, and care coordination personnel. At launch in May 2024, the clinical team included four physicians, consisting of three Family Medicine physicians with experience in addiction care and one Addiction Medicine board-certified Internal Medicine physician. All physician providers were certified fluent Spanish speakers, reflecting the linguistic needs of the clinic's predominantly Latino patient population. The care team also included a clinical social worker, case manager, and program manager, with non-physician staff available five days per week and physician clinics initially operating two afternoons weekly.

Program capacity expanded during the first year in response to growing referral volume and patient demand. The Addiction Psychiatry Fellowship Program Director joined the clinic two months after launch, followed by recruitment of an additional Addiction Psychiatrist at ten months. This integration created an internal training site for Addiction Psychiatry fellows, who had previously completed addiction rotations outside the institution. During the same period, an Infectious Diseases fellow began rotating through the clinic and was subsequently recruited into a faculty position, further strengthening multidisciplinary expertise.

These staffing and specialty additions are reported here as Implementation findings, describing how multidisciplinary integration was operationalized (see Fig. 1). Consistent with this team-based delivery model, completed visits were distributed across Addiction Medicine (41.3%), Social Work (26.4%), Addiction Psychiatry (25.9%), and Care Coordinators/Peer Specialists (6.0%) (Table 3).

Graduate Medical Education Integration

TRANSiT was included as a graduate medical education training site. During the first year, 95 trainees rotated through the clinic, including residents from Internal Medicine, Family Medicine, Psychiatry, and Obstetrics/Gynecology, as well as Addiction Psychiatry fellows. In year two, rotation lengths were expanded to approximately two to three weeks, with at least 80 trainees anticipated annually. Structured trainee feedback informed ongoing refinements to orientation processes, workflow pacing, and educational content, reflecting iterative integration of the clinic into existing training programs.

Workflow Delivery and Care Processes

Clinical workflows emphasized timely access to care, multidisciplinary coordination, harm reduction principles, and rapid initiation of evidence-based treatment. The implementation team collaborated with clinical, administrative, and information technology partners to develop standardized referral, scheduling, documentation, prescribing, and care coordination processes. A centralized electronic referral pathway was established within the electronic health record (EHR), enabling referrals from inpatient, emergency, outpatient, and affiliated behavioral health settings.

Customized EHR infrastructure was developed to support program implementation, including referral orders, scheduling workflows, clinical note templates, flowsheets, and standardized documentation tools. These resources promoted consistency across providers, facilitated multidisciplinary communication, and supported ongoing program monitoring and evaluation.

External consultation from OnPoint NYC informed clinic workflow development and physical space design, ensuring alignment with harm reduction and patient-centered care principles. Clinical workflows also incorporated structured care coordination and navigation services to facilitate engagement in treatment and linkage to ongoing services.[21,22]

Adaptations to Support Feasibility and Engagement

Several implementation adaptations were introduced during the study period to improve feasibility, responsiveness to patient needs, and continuity of care. Telehealth services were integrated from program inception and served as an important strategy for reducing barriers to engagement. Missed appointments triggered a structured outreach protocol that included at least three same-day contact attempts by clinical staff. When feasible, missed in-person appointments were converted to same-day telehealth visits to preserve continuity and reduce loss to follow-up. Patients who could not be reached continued to receive ongoing outreach attempts through care coordination workflows.

Operational capacity was expanded incrementally in response to increasing demand. Rather than requiring substantial new infrastructure investments, growth was supported through phased expansion of clinical sessions, strategic use of existing clinical space, repurposed faculty effort, departmental cost-sharing, and integration of trainees and specialty consultants into existing workflows. These adaptations enabled program growth while minimizing implementation costs and maximizing use of existing institutional resources.

Implementation Fidelity and Continuous Monitoring

Implementation fidelity was assessed by monitoring key elements of the intended bridge clinic model, including timely access to care, multidisciplinary service delivery, medication initiation, structured laboratory monitoring, care coordination, and use of standardized clinical workflows. Program performance and feasibility were monitored through routine review of operational and clinical metrics, including referral volume, visit completion, medication initiation, laboratory monitoring activities, and service utilization patterns. Findings informed ongoing workflow refinements, staffing adjustments, and

operational modifications throughout the implementation period. This iterative approach allowed the clinic to maintain fidelity to its core care model while adapting to evolving patient needs, referral volume, and organizational context.

Maintenance: Institutional Integration, Sustainability, and Program Growth

This section describes the extent to which the TRANSiT clinic was sustained and incorporated into routine clinical, educational, and organizational operations beyond its implementation period. Maintenance was assessed through indicators of financial sustainability, workforce development, continued program growth, and expansion of clinical and educational activities.

Institutional Integration and Financial Sustainability

During the first year, TRANSiT sustained growth in patient volume and referral activity, with 49% of visit volume occurring during the final six months of the implementation period. The program's operating budget was initially supported through divisional pilot funds and formally incorporated into the hospital budget after the 18-month implementation period, reflecting a significant institutional milestone and ongoing financial commitment.

Workforce Development and Capacity Building

Workforce development plays a critical role in sustaining addiction treatment expertise and strengthening the program's long-term clinical capacity. Two faculty members pursued Addiction Medicine board certification and were accepted via the American Board of Preventive Medicine's (ABPM) Addiction Medicine practice pathway.

Program Expansion and Integration

The program continued to evolve beyond its initial implementation model. Expansion activities included hiring an Infectious Diseases specialist to support comprehensive screening and treatment protocols, launching a pilot group therapy program, strengthening inpatient addiction consultation and referral pathways, and offering ongoing education workshops for inpatient and emergency department teams.

Summary of Maintenance Indicators: The following indicators highlight the 18-month evaluation period: (1) sustained patient and visit volume, with 47.2% of patients initiating care and 49% of visit volume occurring in the final six months; (2) formal incorporation of the program into the hospital operating budget; (3) continued workforce growth, including recruitment of an additional Addiction Psychiatrist at ten months, recruitment of an Infectious Diseases fellow into a faculty position, and faculty pursuit of Addiction Medicine board certification; (4) continued graduate medical education integration, with 95 trainees rotating through the clinic in year one and rotation lengths expanded in year two; and (5) service

expansion, including Infectious Diseases services, a pilot group therapy program, and strengthened inpatient addiction consultation and referral pathways.

Discussion

Patients with substance use disorders are frequently identified during hospitalizations or emergency department visits, yet many never connect to ongoing treatment. To address this gap, the TRANSiT Bridge Clinic was designed to provide timely access and multidisciplinary transitional care. Guided by the RE-AIM framework, we found that over the first 18 months of operation, TRANSiT reached a socially and clinically complex population with substantial medical and psychiatric comorbidities, supported high rates of medication initiation, and demonstrated adoption across multiple care settings, supporting the feasibility and early sustainability of a low-barrier program serving patients with substance use disorders within a large academic health system.

Reach and Equity

The population served reflects both the substantial burden of unmet need and the importance of designing services that align with community characteristics. TRANSiT reached a predominantly Latino, Medicaid-insured population with high rates of housing instability and substantial medical and psychiatric comorbidity. Nearly one-third of patients preferred Spanish as their primary language. These findings are particularly notable given persistent disparities in access to evidence-based substance use disorder treatment among racial and ethnic minority populations. [28] The high representation of Latino patients reflects both geographic alignment with the hospital's catchment area and intentional design of bilingual, culturally responsive care. [15] The language concordance between patient population and provider team, including universal Spanish fluency among the original physician staff, likely facilitated engagement, trust-building, and rapid initiation of treatment. While many bridge clinic models have historically emphasized MOUD, alcohol use disorder was the most common diagnosis in our cohort, affecting 59.3% of patients. This finding underscores the importance of bridge clinic models that address the full spectrum of substance use disorders and demonstrates the value of aligning services with the needs of the community.

Early Effectiveness Indicators

Several measures suggest that the clinic successfully delivered core elements of the bridge care model. More than half of the cohort received treatment, and nearly 70% of treated patients were initiated on medication at their first visit. These findings align with core bridge clinic principles and compare favorably with published descriptions of hospital-linked bridge models emphasizing same-day access to pharmacotherapy. [6] Although long-term retention or overdose outcomes were beyond the scope of this evaluation, the high rate of first-visit prescribing represents a critical early implementation milestone given the high-risk transition periods in which patients are referred.

Laboratory monitoring data further suggests meaningful clinical engagement. Over half of patients with alcohol use disorder underwent PEth testing, and among those with follow-up testing, a majority demonstrated improvement. Similarly, buprenorphine metabolite monitoring demonstrated high rates of adherence stability among those retained in follow-up, with over half of those who did not initially demonstrate adherence to MOUD subsequently stabilized on buprenorphine. While these findings should be interpreted cautiously given selection bias toward patients with repeat testing, they suggest that bridge models may support objective monitoring within structured transitional care.

Adoption Across Clinical and Educational Systems

Adoption occurred at multiple levels. Referral patterns demonstrate strong penetration into inpatient and emergency workflows, which are often the most difficult environments in which to embed new addiction services. Multidisciplinary visit distribution indicates that the clinic operated as a team-based model rather than a single-prescriber service.

The integration of the Addiction Psychiatry Fellowship into TRANSiT represented a significant educational systems shift. Fellows previously completed addiction training through external rotations; embedding fellowship training within the clinic established TRANSiT as a workforce development and training site. By serving as a training site for residents and fellows across multiple disciplines, the clinic expanded addiction treatment capacity within the health system and integrated substance use disorder care into existing educational infrastructure. This integration may support long-term sustainability by strengthening the future workforce and normalizing substance use disorder treatment within routine clinical training.

At the same time, baseline surveys revealed a clear readiness gap. While clinicians broadly endorsed medication treatment for SUD, many reported limited training, prescribing experience, clinical support, and infrastructure to provide care. These findings suggest that barriers to adoption were driven less by provider attitudes than by organizational readiness and capacity. In response, TRANSiT paired clinical implementation with a structured outreach and education strategy that included grand rounds, didactic sessions, trainee engagement, and stakeholder outreach across clinical departments. The increase in referral volume following the educational workshops highlights that addressing structural barriers is as important as addressing provider attitudes.

Multidisciplinary Specialty Integration as a Structural Innovation

A defining innovation of the TRANSiT model was the deliberate co-embedding of Addiction Medicine and Addiction Psychiatry within a single bridge clinic structure. While many bridge clinics are led by a single specialty and focus primarily on medication initiation, TRANSiT was designed to address the full spectrum of medical and psychiatric complexity commonly accompanying substance use disorders.

In traditional models, psychiatric instability frequently necessitates referral to separate services, introducing delays, fragmentation, and risk of disengagement. By integrating Addiction Psychiatry

directly into the bridge clinic, psychiatric assessment, medication management, and stabilization occurred in parallel with treatment initiation. This structure reduced reliance on external referral pathways and minimized care silos. Simultaneously, Addiction Medicine expertise ensured management of medical comorbidities, including liver disease, infectious complications, and chronic cardiometabolic conditions, within the same care environment. The inclusion of family medicine and primary care faculty with prenatal care within their scope of practice further expanded the clinic's capacity to care for patients during pregnancy and the postpartum period, populations that may otherwise face additional barriers to accessing substance use treatment.

The combined model allowed coordinated treatment planning across psychiatric, medical, reproductive, and substance use domains without requiring patients to navigate multiple specialty systems during a vulnerable transition period. This integrated specialty structure moves beyond stabilization-only bridge models toward comprehensive transitional care. It represents a scalable framework for addressing the reality that SUD rarely exists in isolation, and that effective bridge care must simultaneously engage psychiatric and medical complexity.

Implementation Feasibility and Resource Stewardship

The clinic was implemented using a resource-conscious approach that relied primarily on existing infrastructure and operational models (e.g., administrative and ancillary personnel, staff workflows, patient-centered design, and interdisciplinary training), repurposed clinical space, reallocated faculty effort, and cross-departmental collaboration. Rather than requiring substantial capital investment, growth occurred through phased expansion, workflow refinement, and strategic integration with existing operational and educational systems. This approach provides a blueprint demonstrating that bridge clinic implementation is feasible for health systems seeking to expand SUD services without extensive or prohibitive new infrastructure.

Maintenance and Institutional Integration

Maintenance indicators show that TRANSiT progressed beyond initial implementation and became increasingly integrated within the health system's clinical, educational, and operational infrastructure. A key milestone occurred after the first year of operation, when program funding transitioned from divisional and departmental support to formal incorporation within the hospital operating budget. This shift reflected continued institutional commitment and signaled movement from a pilot initiative toward a sustained clinical service.

Program maturation was also reflected through expansion of multidisciplinary expertise and service capacity. Hiring an Addiction Psychiatry faculty member strengthened the clinic's ability to address co-occurring psychiatric conditions, while the permanent recruitment of an Infectious Diseases specialist, initially engaged through a fellowship rotation, expanded opportunities for integrated screening and treatment of infectious comorbidities commonly encountered among patients with substance use

disorders. These enhancements extended the clinic's scope beyond transitional stabilization toward more comprehensive, integrated care.

Maintenance was further demonstrated through workforce development. Faculty involvement in the American Board of Preventive Medicine's Addiction Medicine Practice Pathway, including board certification attainment and ongoing certification efforts, expanded addiction-specific expertise within the institution and strengthened the long-term clinical capacity required to sustain specialized addiction services. At the same time, continued integration within residency and fellowship training programs reinforced the clinic's role in graduate medical education and helped establish a recurring pipeline for workforce development.

Implications for Bridge Clinic Models

The findings from this RE-AIM evaluation have two important implications for health systems seeking to develop, implement, and sustain similar bridge clinic models. First, successful bridge clinic implementation requires more than clinical expertise or referral pathways alone. Adoption and sustainability depend on alignment between community need, organizational support, workforce development, and operational feasibility. Second, the value of the model extended beyond medication initiation alone. TRANSiT was designed to address the broader needs that often accompany substance use disorders and contribute to fragmented care following hospitalization or emergency department encounters. The clinic's multidisciplinary structure, coupled with strong referral pathways and care coordination, created a centralized point of access for patients who might otherwise struggle to navigate multiple services. For example, our clinic reached a predominantly Latino, Medicaid-insured population with substantial social and clinical complexity, with alcohol use disorder representing the most common diagnosis. As such, our service delivery was continuously evaluated and tailored to address local patterns of need rather than a singular focus on any one substance use disorder or treatment modality.

Conclusion

The TRANSiT experience demonstrates that a multidisciplinary substance use disorder bridge clinic can be implemented and integrated within a large academic health system by leveraging existing clinical, educational, and operational infrastructure. Importantly, whereas bridge clinic models are sometimes perceived as resource-intensive or dependent on external grant funding, we demonstrate that implementation of TRANSiT followed a resource-conscious design and did not require new capital investment. Instead, TRANSiT relied on intentional integration of existing resources, development of clear referral pathways, multidisciplinary staffing, and deliberate efforts to strengthen implementation climate and provider capability. This implementation successfully transitioned from a pilot initiative to an institutionally supported model of substance use disorder treatment.

The multidisciplinary approach of TRANSiT enabled patients with complex needs to receive coordinated care within a single transitional setting, reducing reliance on fragmented specialty referral pathways during a period of heightened vulnerability. By aligning the program with community health needs

identified through the health system's community health needs assessment process, TRANSiT also illustrates how bridge clinics can serve not only as clinical access points but as system-level infrastructure for addressing locally identified gaps in healthcare delivery.

Several key lessons emerged from the implementation of the TRANSiT clinic:

1. **Bridge clinics can be launched within large academic health systems using low startup cost and strategic resource reallocation**: TRANSiT was implemented using repurposed clinical space, dedicated physician sessions (including moonlighting), and targeted hiring of care coordination and peer staff, without major capital investment.
2. **Institutional integration requires more than medication initiation; it requires structural embedding**: Within one year, the clinic achieved multi-campus referral penetration, integration into graduate medical education, and formal inclusion within the hospital budget.
3. **Co-embedding Addiction Medicine and Addiction Psychiatry strengthens transitional addiction care**: Integrating both specialties within a single bridge clinic enabled coordinated management of medical and psychiatric comorbidity, reducing fragmentation during high-risk care transitions.
4. **Provider endorsement of medication treatment does not equate to perceived readiness to deliver care**: Pre-implementation surveys revealed high belief in medication effectiveness but low confidence and perceived structural support, highlighting the importance of organizational infrastructure in adoption.
5. **Multidisciplinary, linguistically concordant bridge models may improve equity in urban safety-net populations**: Universal Spanish fluency among founding physicians and team-based care supported engagement in a predominantly Latino, Medicaid-insured patient population.

This evaluation contributes to growing literature on bridge clinics by demonstrating that such models can be implemented within large, multi-campus academic health systems serving diverse urban populations, with early indicators of sustainability. While many published bridge clinic descriptions focus on initial launch and short-term outcomes, fewer reports detail institutional integration processes such as workflow design, fellowship integration, and specialty expansion. The feasibility demonstrated in this model shows how other health systems may be able to implement bridge clinics through strategic reallocation and phased growth rather than through large initial investments.

Although we did not conduct a formal cost-effectiveness analysis, future work should evaluate downstream healthcare utilization, including readmissions, emergency department use, and inpatient length of stay, to better quantify economic impact. Nonetheless, the early institutional integration of the TRANSiT clinic within a resource-constrained academic environment underscores that comprehensive transitional addiction care can be operationally feasible, with early indicators of sustainability.

In conclusion, the TRANSiT experience provides guidance on implementing future bridge clinics as platforms for expanding access to integrated care for people with substance use disorders. Continued evaluation will be essential to understand long-term effectiveness, sustainability, scalability, and system-wide impact. Findings from this RE-AIM evaluation demonstrate that the TRANSiT Bridge Clinic

implementation was feasible and showed early indicators of sustainability in a large academic medical setting with limited capital, requiring innovative and budget-neutral staffing and operational redesign, workforce development, capacity building, referral and clinical workflow refinement, with a focus on improving access to evidence-based treatment and advancing coordinated, patient-centered care.

Declarations

Ethics approval and consent to participate:

This retrospective, minimal-risk study was approved by the Columbia University Irving Medical Center Institutional Review Board under expedited review in accordance with the U.S. Common Rule (45 CFR Part 46; Protocol AAAV9351), with a waiver of informed consent under 45 CFR 46.116.

Consent for publication:

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Author Contribution

NK: concept, design, and oversight of study. RS and CC: data collection and analysis. JA, RL, and NB: provided contextual framing centered on organizational and clinical domain knowledge. All listed authors contributed to each section of the manuscript in substantive ways.

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Availability of data and materials:

The data generated or analyzed in this study are not publicly available to protect patient privacy.

Competing interests: The authors declare that they have no competing interests.

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Figures

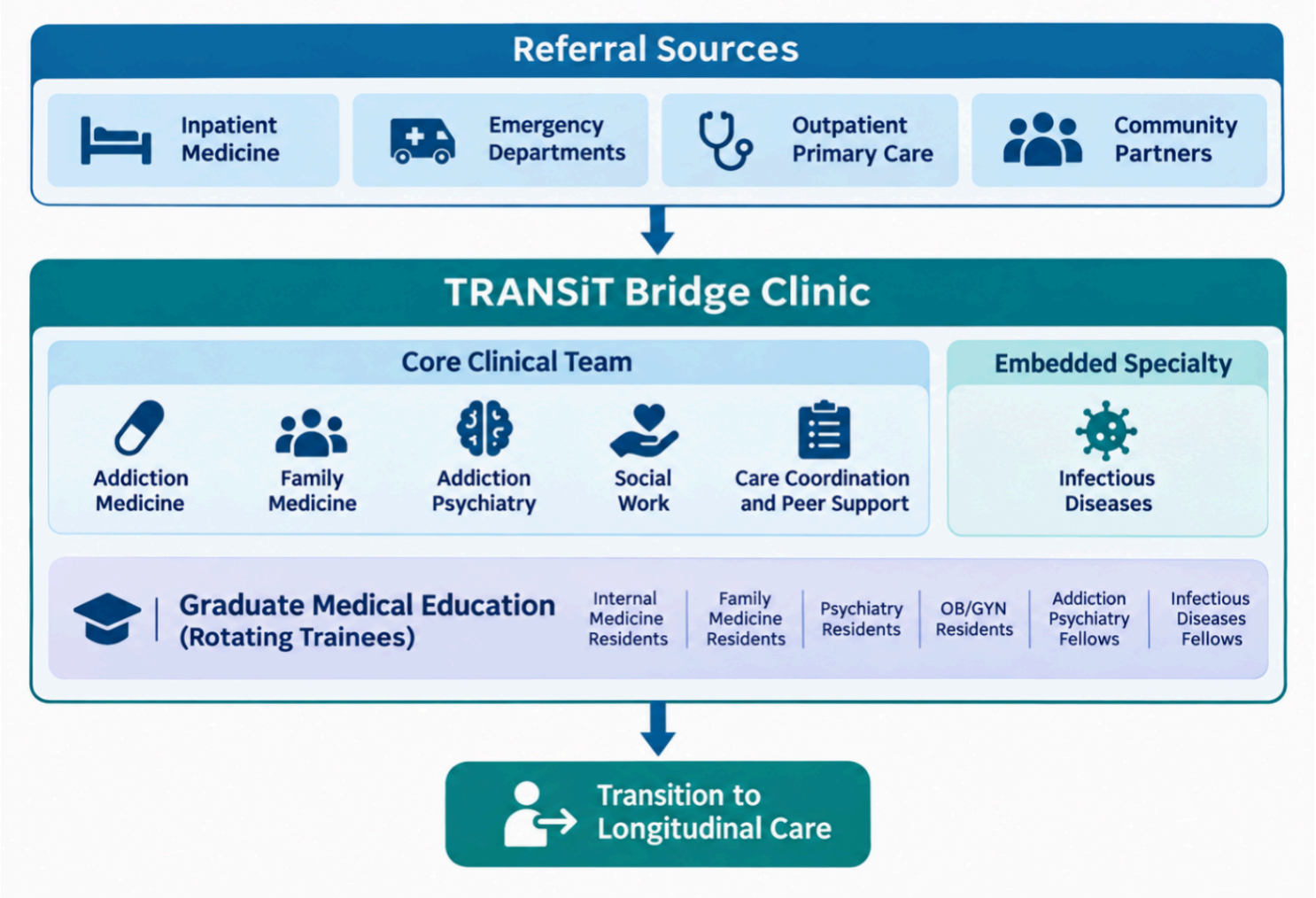


Figure 1

TRANSiT Bridge Clinic Model, Care Team, and Referral and Training Partners

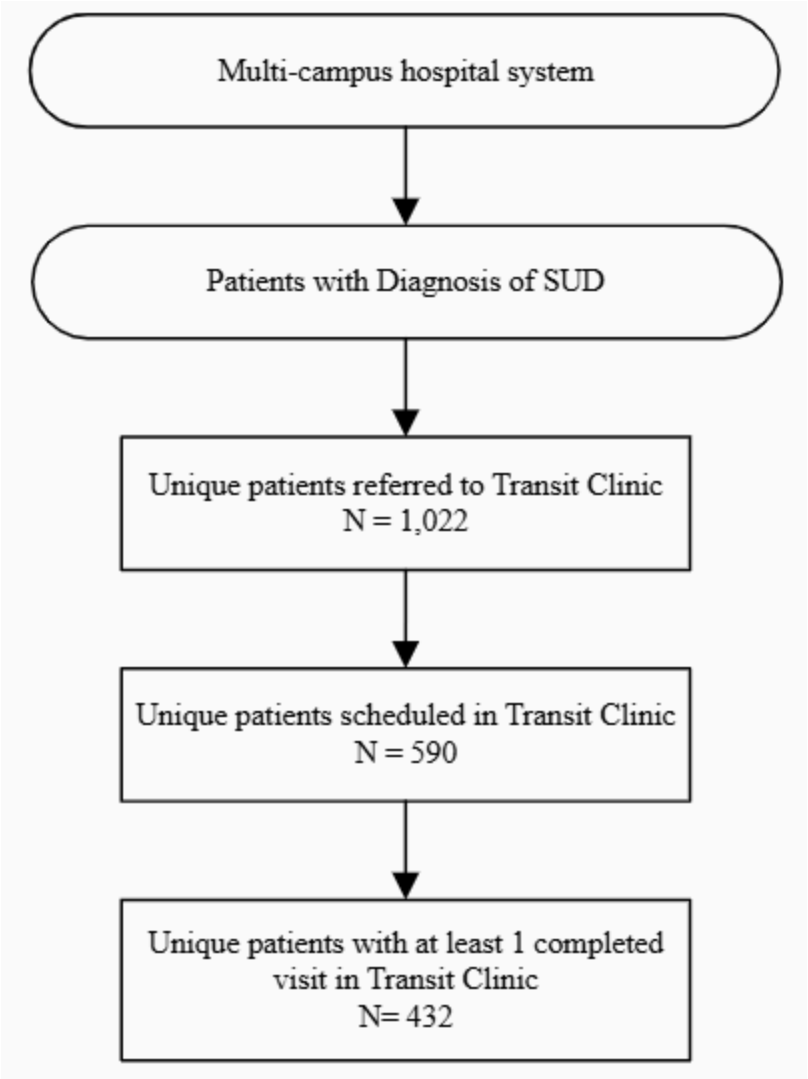


Figure 2

Patient Selection