

# Vermont Emergency Telepsychiatry Network (VETN)

## 2023 Evaluation

### Background

The Vermont Program for Quality in Health Care, Inc. (VPQHC) designed the Vermont Emergency Telepsychiatry Network (VETN) to be a statewide system where children, adolescents, and adults presenting to Vermont Emergency Departments (EDs) with acute mental health crises will receive timely specialized psychiatric assessment via video conferencing technology. In October 2023, an average of **28 patients** of all ages were **boarding** in Vermont EDs **on any given day**, awaiting transfer or discharge to mental health care.<sup>1</sup> Furthermore, in October 2023, one out of seven ED beds, on average, was occupied by a patient waiting for mental health care.<sup>1</sup> VETN has five areas of focus:



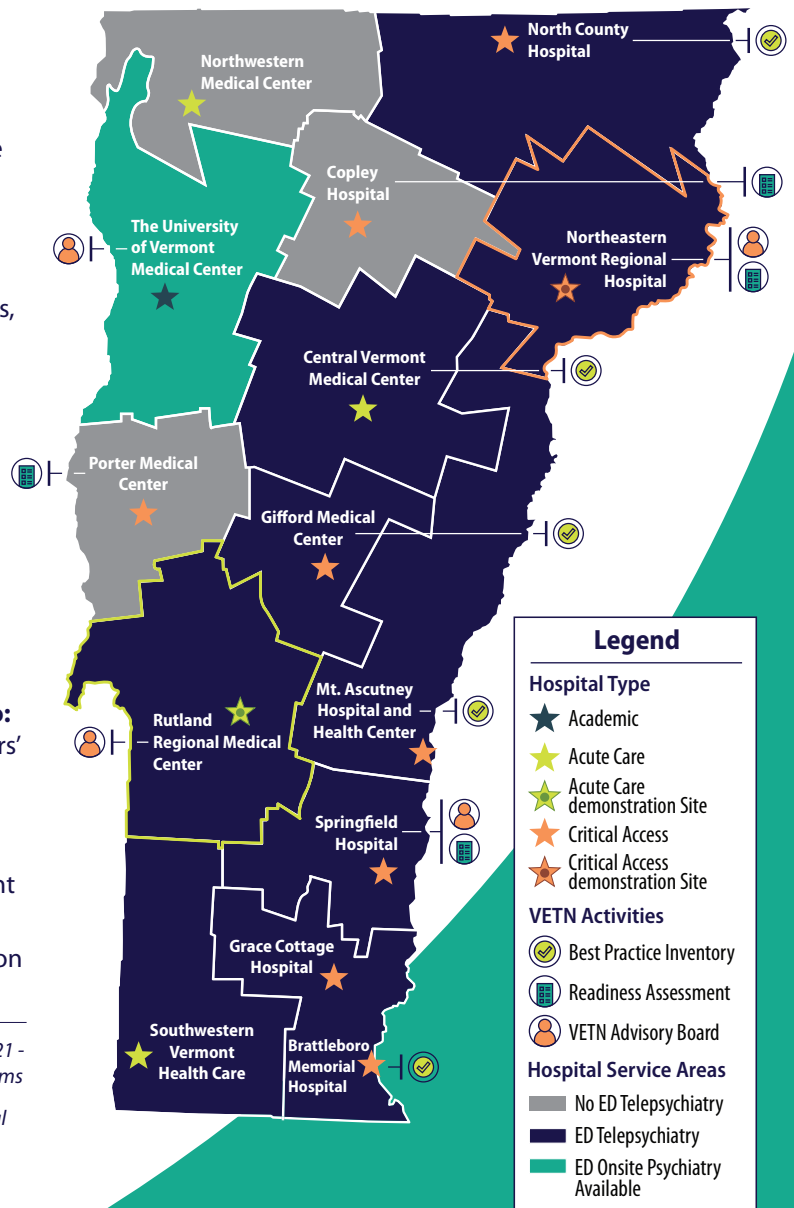
- VPQHC contracted with Research Triangle Institute (RTI) to:**
- evaluate VETN Advisory Board's composition and members' satisfaction and engagement as well as identify opportunities for enhancements;
  - evaluate the VETN demonstration projects at two participating hospitals<sup>2</sup> to assess provider/staff and patient satisfaction and preferences;
  - and conduct a cost analysis of start-up and implementation costs for VETN at these demonstration sites.

<sup>1</sup> Source: People Waiting for Mental Health Placement Monthly Summary June 2021 - October 2023. Montpelier, VT: Vermont Association for Hospitals and Health Systems

<sup>2</sup> at Rutland Regional Medical Center (RRMC) and Northeastern Vermont Regional Hospital (NVRH) that piloted telepsychiatry services in their EDs

VPQHC and RTI would like to thank the VETN Evaluation Committee for their guidance and feedback throughout the evaluation.

### Vermont Hospitals and VETN Activities



This map depicts the VETN activities. It does not represent capacity. Emergency telepsychiatry services in some hospital service areas are limited to certain populations and/or times.

# Vermont Emergency Telepsychiatry Network (VETN) 2023 Evaluation

## Characteristics of patients that used VETN telepsychiatry services

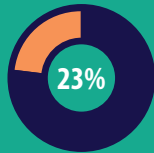
(from RRMC, between January-September 2023, n=13)



8 Female Patients



13 Patients had health insurance through Medicaid



3 Patients under 10 years old



2 Patients between 11-14 years old

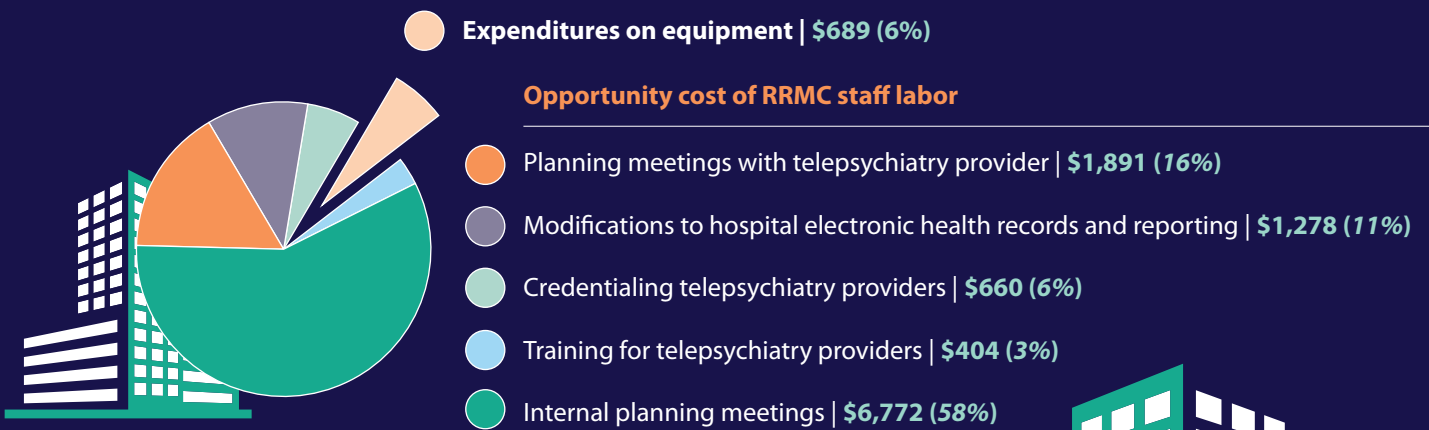


8 Patients between 15-17 years old

## RRMC Start-up Costs

RRMC developed a telepsychiatry service delivery model that includes 4 credentialed providers offering consults during business hours, 2 days a week. RRMC targeted subset of pediatric patients, ages 18 years and younger referred to Brattleboro Retreat, **a local provider** for inpatient behavioral health. RRMC's start-up leveraged existing telehealth procedures, training, and equipment which reduced start-up costs. RRMC's start-up expenditures are **\$689** to update video conferencing equipment. RRMC staff supported start-up efforts within the capacity of their existing roles at RRMC; the estimated 'opportunity' cost of RRMC staff labor is **\$11,009**, including fringe benefits and administrative costs. RRMC start-up/planning activities occurred between October to December 2022. RRMC implemented VETN in January 2023, with the first patient being seen in March 2023.

## RRMC Start-up Costs: Prospective Payment System Hospital Demonstration Project



This project is supported by Grant Number 1H79FG000756-01 from SAMHSA. Its contents are solely the responsibility of the author and do not necessarily represent the official views of SAMHSA.

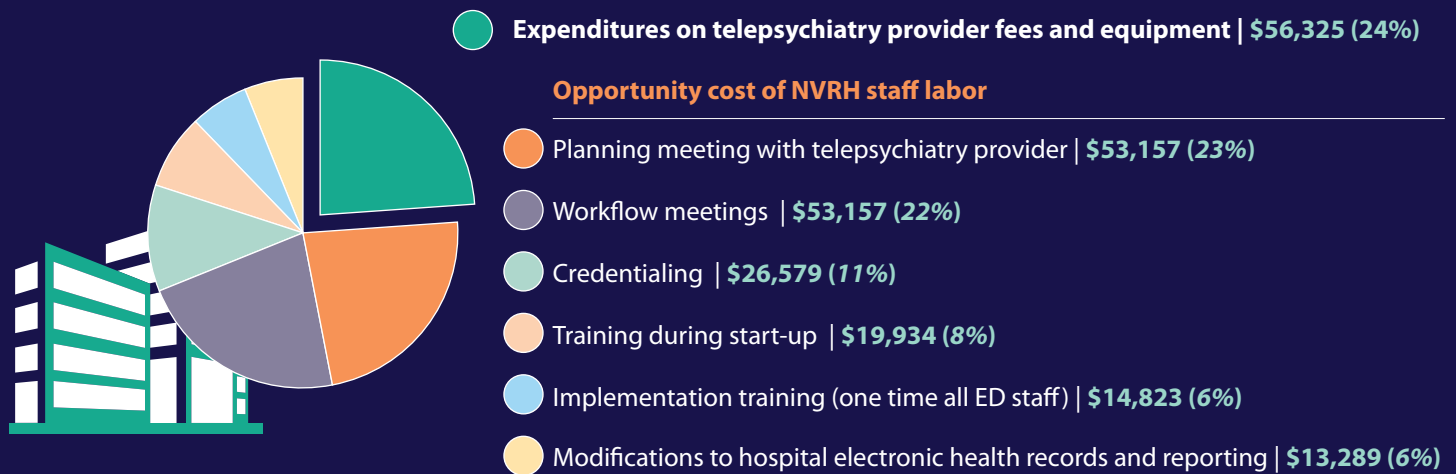


# Vermont Emergency Telepsychiatry Network (VETN) 2023 Evaluation

## NVRH Start-Up Costs

NVRH developed a telepsychiatry service delivery model that includes 17 credentialed providers affiliated with a **national telepsychiatry vendor**, ARRAY, offering off-hours (5 pm to 8 am and weekends) telepsychiatry consults at the attending physician's request. NVRH start-up expenditures are **\$56,325** which includes ARRAY's fees, equipment, and training costs. Over 6 months, NVRH staff supported start-up efforts within the capacity of their existing roles at NVRH; the estimated 'opportunity' cost of NVRH staff labor is **\$180,939** including fringe benefits and administrative costs. NVRH start-up/planning activities occurred from May to November 20, 2023.

### NVRH Start-up Costs: Critical Access Hospital Demonstration Project





## RRMC Ongoing Telepsychiatry Costs

RRMC provided telepsychiatry services to 13 patients between January-September 2023, at a total cost of **\$11,899** and a per patient cost of **\$915**. The VETN grant funding covered **\$8,856** of the consult costs (**74% of total costs**) while Medicaid reimbursement covered **\$1,544** (**13% of total costs, about \$119 per patient**). The 'opportunity' cost of hospital facilitation is **\$1,499** (**13% of total costs**), which included time spent by RRMC staff to request a consult, set up and tear down equipment, monitor patients during sessions, and post-consult follow-up.

## RRMC ED Length of Stay (LOS)

RRMC patients receiving a telehealth consult had **13 ED stays** with an average ED LOS of **136 hours per patient ED visit**. The ED LOS was primarily determined by bed availability at inpatient facilities and patient acuity. A higher percentage of patients receiving a telehealth consult had a behavioral restraint and/or an emergency evaluation, which can likely be attributed to the program's design of serving patients with higher acuity.

**A higher proportion of patients receiving a telehealth consult had a behavioral restraint and/or an emergency evaluation.**

	Behavioral Restraint Count (%)	Emergency Evaluation Count (%)	Total
 Mental health patients receiving a telehealth consult	5 (38%)	2 (15%)	13
 Mental health patients <u>not</u> receiving a telehealth consult	10 (5%)	4 (2%)	212

# Vermont Emergency Telepsychiatry Network (VETN) 2023 Evaluation

## Demonstration Hospital Interviews: Provider Satisfaction and Experiences

### Sampling frame

RTI contacted 11 individuals in various roles (e.g., specialists, ED providers, other clinical staff) at both of the demonstration site hospitals (RRMC and NVRH) who could speak to the planning and implementation of VETN at their respective location.



### Data Collection



Individual interviews were conducted via Zoom between **August 10, 2023, and September 11, 2023**. A total of **8 staff/providers** (5 from RRMC/Brattleboro and 3 from NVRH) participated in the interviews.

“There's a lot of potential to expand VETN and provide an even broader improvement in overall care for all patients [with a mental health issue] who walk into an Emergency Department.”

“The other big one [benefit to telepsychiatry consultations] is engaging them when someone has been in the ED for a prolonged period of time and their status is changing. Whether that be they initially were decompensated and acute and going through the involuntary process and now they've been with us for four or five days, they've changed their medicine, they're now cooperative, deescalated. How do we take them out of that involuntary pathway? And having a psychiatrist on board to say, 'Yes this is appropriate,' I think is really helpful.”

## VETN Demonstration Hospital Interview Findings

### Telepsychiatry consultations are perceived as beneficial for multiple reasons:

- preventing inpatient transfers (which are sometimes involuntary) because patients have de-escalated due to specialist's care
- facilitating more efficient referral and transfer processes
- leading to shorter inpatient stays
- helping ED doctors manage patients' mental health medications
- keeping patients "future-oriented" because they can begin treatment in the ED
- decreasing the wait time for second certification

### Implementing telepsychiatry consultations is a resource-intensive process for small hospitals.

- The time and cost associated with credentialing 10+ providers is a lot for a small hospital to absorb.
- It would be helpful to explore ways to recoup the planning and implementation costs for telepsychiatry, including grant funding, state funding, and partnering with other institutions statewide.

“It's been a very positive experience. I think it has helped us move patients along their care journey faster. It's allowed them to engage in treatment sooner.”



## VETN Demonstration Hospital Interview Findings *(continued)*

### Telepsychiatry providers must be cognizant of maintaining eye contact with patients during appointments.

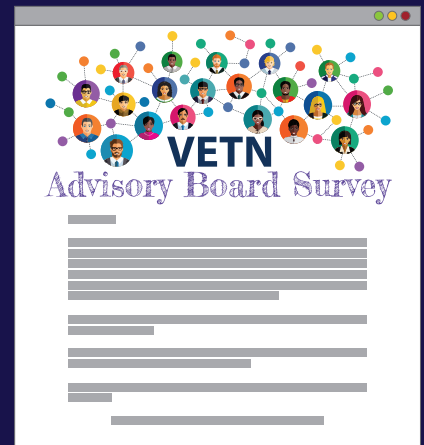
- Maintaining eye contact with patients during appointments is critical for quality of care.
- Looking away at supplemental information gives the impression the provider is distracted, which can be upsetting to patients.

### Among providers, there was a slight preference for telepsychiatry consultations over in-person consultations.

- Providers have increased availability as a result of not traveling to appointments.
- Providers may have greater physical safety during a telepsychiatry consultation.
- From a health equity standpoint, telepsychiatry improves access to specialist services in rural parts of the state.

## VETN Advisory Board Survey

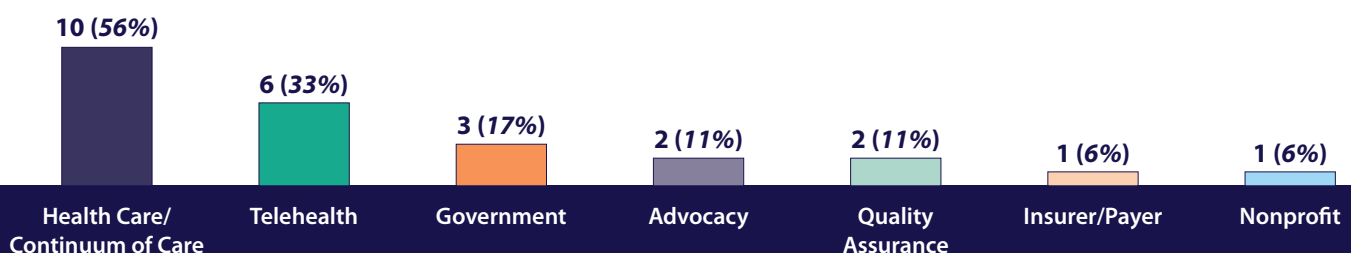
In August 2023, RTI administered a brief online survey of all VETN Advisory Board members ( $n=28$ ) to assess member composition, member engagement, member satisfaction, and opportunities for enhancements. We achieved a **61% response rate** ( $n=17$  with 1 additional partial complete). RTI conducted a basic descriptive analysis of responses.



## Member Composition

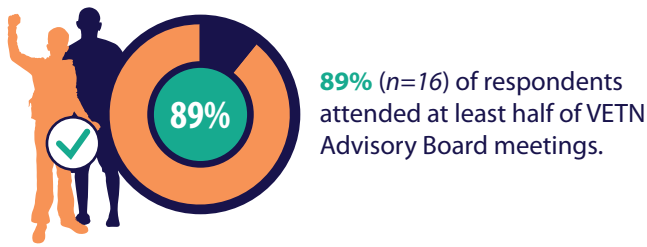
- **88%** ( $n=15$ ) of respondents were affiliated with organizations that provided services statewide.
- **18%** ( $n=3$ ) of respondents were affiliated with an organization that provided services within a specific county; all of these respondents were affiliated with a demonstration hospital.
- **53%** ( $n=9$ ) of respondents have lived experience seeking support for mental health needs or services for themselves or a loved one.

## Organizational Affiliation of VETN Advisory Board Members



# Vermont Emergency Telepsychiatry Network (VETN) 2023 Evaluation

## Member Engagement



## Members' Satisfaction and Perceived Effectiveness of Board Facilitator



## Greatest Perceived Benefit to Participating in the VETN Advisory Board

