VERMONT EMERGENCY TELEPSYCHIATRY NETWORK

NEEDS ASSESSMENT

2022

MCD Global Health

NORTHEAST TELEHEALTH RESOURCE CENTER

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December 2022

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Appendices may be accessed here:
https://www.vpqhc.org/vermont-emergency-telepsycha

THIS NEEDS ASSESSMENT BRIDGES THE GAP BETWEEN A BASIC UNDERSTANDING THAT **MORE TELEPSYCHIATRY SERVICES ARE NEEDED IN VERMONT EDS** AND A SPECIFIC UNDERSTANDING OF WHAT FORM THOSE SERVICES SHOULD TAKE, WHO WOULD BE SERVED, WHAT RESOURCES WOULD BE NEEDED, AND WHO COULD GUIDE THE PROCESS.

EXECUTIVE SUMMARY

Vermonters of all ages are presenting to Emergency Departments (EDs) with mental health needs and waiting days before they can get admitted to psychiatric inpatient care or discharged. EDs throughout the US are experiencing similar problems, and some have implemented emergency telepsychiatry, a form of live-interactive videoconferencing and an application for emergency psychiatric assessment and treatment, to meet the needs of the community.

This needs assessment bridges the gap between a basic understanding that more telepsychiatry services are needed in Vermont EDs and a specific understanding of what form those services should take, who would be served, what resources would be needed, and who could guide the process.

A literature review shows evidence of reduced lengths of stay in the ED, lower hospital admission rates, and lessened overcrowding with the use of emergency telepsychiatry. Evidence shows reduced turnaround times (from when the psychiatric consult was called to the time it was completed) for telepsychiatry versus face-to-face visits and improved patient satisfaction. The literature adds to our understanding the aspect of cost savings, including those related to unnecessary psychiatric hospitalizations.

A national environmental scan identified North Carolina to be among the states that stood out for their successful statewide emergency telepsychiatry programs. The NC Statewide Telepsychiatry Program (NC-STeP) allows for individuals presenting at a hospital emergency department with an acute mental health crisis to receive a psychiatric assessment over video.

A survey of 14 Vermont EDs discovered that six hospitals currently offer emergency telepsychiatry services. Of the hospitals not offering telepsychiatry services, four reported that their ED would benefit from having access to telepsychiatry services.

Hospitals offering ED telepsychiatry use various services, including consultation directly to ED providers, initial evaluations, consultation and treatment directly to patients, and follow up evaluations, among others. Hospitals identified funding, equipment, software, staffing, and technical assistance as needs for expanding or enhancing their current services.

A survey of 89 stakeholders found that an emergency telepsychiatry network is needed to improve timeliness of care, workforce capacity, training, geographic access, financial access, and prevention.

Eight key informant interviews formed a shared vision for a statewide emergency telepsychiatry network. Participants defined "success" as improved quality of care and higher patient and provider satisfaction. Examples include better outcomes for patients with psychiatric needs presenting to the ED, shorter wait times to access psychiatry services, shorter lengths of stay, lower admission rates to inpatient psychiatry services, improved relationships between EDs and community resources, and better medication management for patients with long stays.

Interviewees felt very strongly that if out-of-state telepsychiatry providers are to be used, they must have access to and knowledge of local resources needed to manage the care needs of patients across the continuum of care, including transitions of care.

This needs assessment supported the Vermont Program for Quality in Health Care, Inc. (VPQHC) in receiving a $901,123 Congressionally Directed Spending grant from Senator Patrick Leahy (D-Vt.) through the Substance Abuse and Mental Health Services Administration (SAMHSA) to support coordination of the Vermont Emergency Telepsychiatry Network (VETN). The project will support Vermont EDs in caring for people seeking emergency mental health services.

BACKGROUND

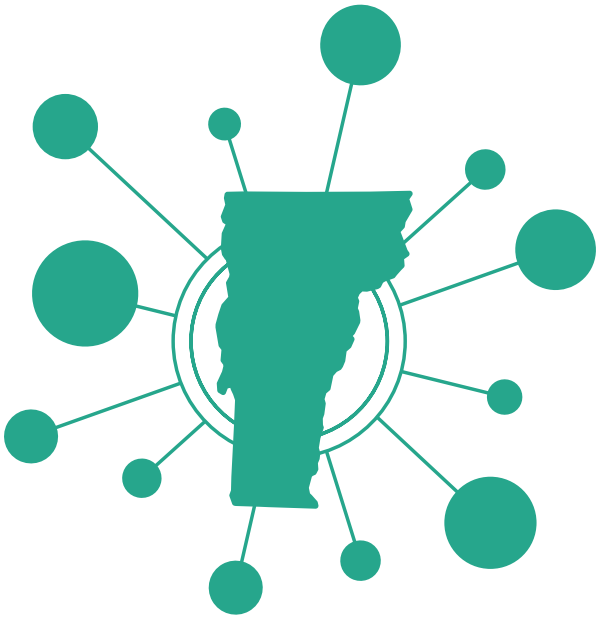
Vermonters of all ages are presenting to EDs with mental health needs and waiting days before they can get admitted to psychiatric inpatient care or discharged. A recent *VTDigger* article labeled the situation "a crisis."[1] According to the Vermont Department of Mental Health, there were 8,785 outpatient and 1,524 inpatient emergency room waits for mental health during October 2018 – September 2019.[2] Vermont Association of Hospitals and Health Systems collects point-in-time data on patients of all ages in EDs waiting transfer or discharge to mental health care – also called "patient boarding." Based on data collected from May 24, 2021 through March 31, 2022, the majority of people have been waiting more than 24 hours for placement on most days.[3]

EDs throughout the US are experiencing similar problems, and some have implemented telepsychiatry to meet the needs of the community. A 2016 national study of telepsychiatry in US emergency departments found that 20% of EDs had access to telepsychiatry and found that "telepsychiatry may be an effective alternative for creating accessible services and streamlining the ED process, with favorable effects on ED boarding and crowding and better utilization of limited resources. Considering these outcomes, we believe that more EDs should consider the benefits of implementing such services."[4]

Similarly, a New York study found that "compared to EDs without telepsychiatry, the presence of telepsychiatry was associated with decreased odds of an observation stay" ... "likely reducing the amount of time spent in the ED and mitigating the ongoing problem of ED crowding."[5]

When conducting a national environmental scan, we identified two states that particularly stood out for their successful statewide ED telepsychiatry programs. In South Carolina, the Department of Mental Health (SCDMH) partnered with The Duke Endowment to create the SCDMH Emergency Department Telepsychiatry Program. This program was implemented as a response to experienced long wait times in the ED for patients presenting with a mental health crisis. The primary goal of establishing the program was to increase access to mental healthcare across the state, but there was a heightened focus on the underserved and rural communities. South Carolina became the first state to successfully connect patients in emergency departments to remote psychiatrists via telehealth. The SCDMH Emergency Department Telepsychiatry Program received initial funding from the South Carolina Department of Health and Human Services. Today, the network is supported by state appropriations, grants, and earned revenue.[6]

In North Carolina, the NC Statewide Telepsychiatry Program (NC-STeP) was developed in response to Session Law 2013-360, directing the Office of Rural Health to oversee the development and implementation of a statewide telepsychiatry program. The program allows for individuals presenting at a hospital emergency department with an acute mental health crisis to receive a psychiatric assessment over video. The program has generated cost savings as a result of overturned involuntary commitments, benefitting state psychiatric facilities, hospitals, law enforcement agencies, Medicare, Medicaid, and other stakeholders.[7]



In 2021, VPQHC applied for funding from the Vermont Community Foundation to perform a needs assessment to inform the development of the Vermont Emergency Telepsychiatry Network (VETN)

"THE PRESENCE OF TELEPSYCHIATRY WAS ASSOCIATED WITH DECREASED ODDS OF AN OBSERVATION STAY"...

"LIKELY REDUCING THE AMOUNT OF TIME SPENT IN THE ED AND MITIGATING THE ONGOING PROBLEM OF ED CROWDING."[5]

METHODS

PROJECT MANAGEMENT

VPQHC partnered with MCD Global Health (MCD) and the Northeast Telehealth Resource Center (NETRC) to perform the needs assessment. Project management efforts included weekly team meetings, progress check-ins, and stakeholder engagement. An outline of project deliverables was established along with an accompanying timeline indicating ownership of each task. Additionally, a shared document folder was used to store literature, templates, and data collected.

Throughout the project period, the MCD and NETRC teams worked with stakeholders to develop recommendations for the development of a statewide telepsychiatry network pilot project.

LITERATURE REVIEW

A literature review was conducted to address questions surrounding the development of a statewide telepsychiatry network:

- What is the evidence base around emergency telepsychiatry?
- What is the clinical effectiveness?
- Does it differ based on adult versus pediatric populations?
- What information can we find on cost effectiveness, including patient and provider satisfaction?
- What considerations are related to reimbursement and licensing in Vermont?

Utilizing the National Telehealth Resource Center databases and scholarly journal articles, relevant literature was compiled and can be used to assist with developing guidelines and best practices for a pilot project. An annotated bibliography may be found in **Appendix 1.**

EMERGENCY DEPARTMENT ORGANIZATIONAL ASSESSMENT

A census survey with 14 EDs was fielded in May 2022 to: (1) seek input on the current state of telepsychiatry in EDs; (2) ask how hospitals and patients could be supported; (3) assess the current state of telepsychiatry; and (4) identify barriers and training needs. The organizational assessment instrument may be found in **Appendix 2.**

STAKEHOLDER SURVEY

A stakeholder survey was fielded in May 2022, with a convenience sample of 89 respondents, to solicit thoughts about developing VETN, possible activities, and items to be funded. A variety of Vermont stakeholders were invited to participate, including people with lived experience, telehealth experts, insurers, government representatives and employees, and community based mental health clinicians. The stakeholder survey instrument may be found in **Appendix 3.**

METHODS

KEY INFORMANT INTERVIEWS

Key informant interviews were conducted to scan the landscape of health services and telepsychiatry capacity throughout the state as well as foster ideas for a successful program implementation. Interview questions were developed as a collaborative effort between MCD, NETRC, and VPQHC and were based on survey findings. The interview guide may be found in **Appendix 4.**

Interviewees were selected by reviewing the stakeholder and hospital surveys and identifying respondents that marked "yes" to the question of "may be contacted to discuss further." This list of contacts was divided into three cohorts, and invitations were sent to participate in 30-60 minute interviews.

In August through October, eight interviews were conducted virtually with a range of stakeholders from throughout the state:

- Karl Jefferies, Brattleboro Retreat
- Pat Daly, Woodstock Research
- Doug Nilson, Springfield Hospital
- Matthew Siket, The University of Vermont Health Network
- Anne Donahue, Vermont State Representative
- Christine Finn, Dartmouth Health
- Dillon Burns, Vermont Care Partners
- Erin Carmichael, Suellen Bottiggi, Michael Rapapaort and Sandi Hoffman, Department of Vermont Health Access

Following the interviews, the MCD/NETRC team analyzed responses and identified common and compelling themes, discussed later in this report.

A STATEWIDE TELEPSYCHIATRY NETWORK CAN RESULT IN A

"DECREASE IN UNNECESSARY PSYCHIATRIC HOSPITALIZATIONS AND CONTRIBUTE TO SIGNIFICANT COST SAVINGS TO THE HEALTHCARE SYSTEM AND SOCIETY..."[11]

OVERARCHING FINDINGS

LITERATURE REVIEW

We found that the literature on emergency telepsychiatry supports much of what the stakeholders consider to be important signs of success. For example, there is evidence of reduced lengths of stay in the ED, lower hospital admission rates and lessened overcrowding.[8] The implementation of telepsychiatry in EDs also decreased patients' wait time in the emergency department, reduced ED revisit rates, improved ED patient disposition (e.g., more discharge to home, less observational stays, and decreased inpatient admissions), and reduced follow-up encounters involving self-harm diagnosis.[9] Evidence has shown a reduction in the turnaround time from when the psychiatric consult was called to the time it was completed for telepsychiatry versus face-face visits and improved patient satisfaction, both indicators of improved quality of care for patients.[10]

The literature added to our understanding the aspect of cost savings and provided an evidence-based lens when looking at the use of telepsychiatry in the ED. A 6.5 year study of the NC STeP program showed that a statewide telepsychiatry network can result in a "decrease in unnecessary psychiatric hospitalizations and contribute to significant cost savings to the healthcare system and society and improve the outcomes for patients and families by decreasing financial burden and stress associated with a hospital stay."[11]

A four-year study of the South Carolina Department of Mental Health Telepsychiatry Program found that patients receiving telepsychiatry in the ED "were less likely to be admitted to the inpatient setting at their ED visit … and had lower overall 30-day inpatient costs."[8]

The full annotated bibliography may be found in **Appendix 1.**

OVERARCHING FINDINGS

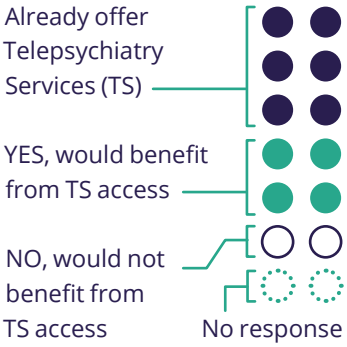
EMERGENCY DEPARTMENT ORGANIZATIONAL ASSESSMENT

Twelve of 14 Vermont hospitals completed the survey (86% response rate). Half (6 of 12) offered emergency telepsychiatry services at the time of the survey. Of those, four EDs had been offering the services for 1-2 years, and two EDs had been offering the services for 3-5 years.

Of the six hospitals not offering telepsychiatry services, four reported that their ED would benefit from having access to telepsychiatry services. These hospitals listed several benefits expected from a statewide emergency telepsychiatry network:

- ability to provide standards-based psychiatric care in a timely manner;
- fewer transportation issues;
- decreased inpatient utilization and costs;
- more efficient and effective triage and evaluation;
- shorter lengths of stay;
- help with diagnosis and treatment of patients in ED;
- assistance with timely and accurate placement and transfer of care;
- ability to start or adjust medications during boarding;
- improved patient outcomes;
- increased ED provider support and satisfaction; and
- decreased stigma for people with mental health needs.

Emergency Departments (N=14) in Vermont



The six EDs offering telepsychiatry reported that these services are used: consultation and guidance directly to ED providers (100%); initial evaluations (83%); consultation and treatment directly to patients (67%); follow up evaluations (67%); general consultations (67%); services related to placing a patient under an involuntary treatment order (50%); and safety assessments (33%). The same hospitals reported that the following would be needed to expand or enhance their current service: funding (75%); equipment (50%); software (50%); staffing (50%); and technical assistance/consultation/ training (50%).

OVERARCHING FINDINGS

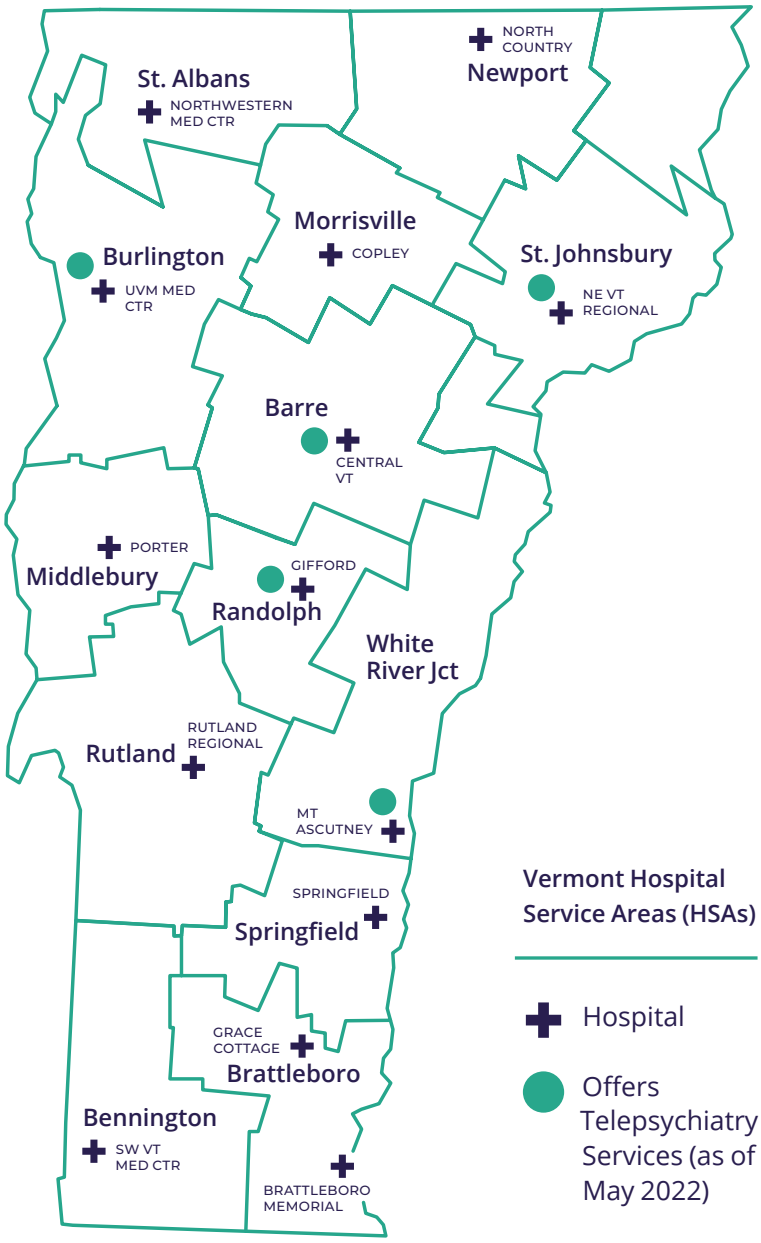
EMERGENCY DEPARTMENT ORGANIZATIONAL ASSESSMENT

Five locations were identified as offering emergency telepsychiatry at the time of the survey. One ED response did not include a hospital name, so the location of the sixth hospital offering ED telepsychiatry is unknown. Two hospitals, Gifford and Northeastern Vermont Regional Hospital, discontinued their ED telepsychiatry services after the organizational assessment was fielded. It is possible that other EDs offer telepsychiatry services but either did not respond to the survey or did not indicate their hospital name when responding to the survey.

EDs described the need for financial support and sustainability for hospitals currently offering telepsychiatry services. One representative testimonial suggests how funding dedicated to expanding emergency telepsychiatry services could best support hospitals:

> *"Through providing appropriate technological devices, as well as offsetting the cost of securing psychiatry coverage. Our organization is not large enough to hire 24/7 psychiatric coverage. If many organizations needed partial coverage, this state-wide allocation could allow many small hospitals to gain access."*

VERMONT HOSPITALS OFFERING EMERGENCY TELEPSYCHIATRY SERVICES



OVERARCHING FINDINGS

STAKEHOLDER SURVEY

100% (OUT OF 89 RESPONDANTS) AGREED,

"Vermont would benefit from an Emergency Telepsychiatry Network."

ONE PERSON USING MENTAL HEALTH SERVICES REPORTED THAT THE,

"ED is like a waiting room for a specialist surrounded by chaos."

Stakeholders identified reasons why a network is needed:

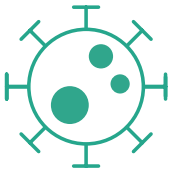
Timeliness of Care

Workforce Capacity

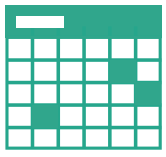
Training

Geographic Access

Financial Access



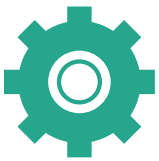
Externalities (e.g. COVID)



Systems Issues (e.g. Scheduling)

Prevention

Stakeholders also reported some potential concerns to consider:



Operations

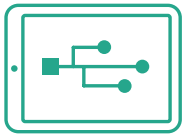
Cost & Sustainability

Communication w/ Hospital Staff

Training

Equity

Intergration w/ Community Mental Health



Technology

Quality of Service

OVERARCHING FINDINGS

KEY INFORMANT INTERVIEWS

There were several common and compelling themes that arose throughout the eight separate interviews. These themes are outlined below, under each of the interview questions:

What does success of a statewide telepsychiatry network look like?

We heard many reoccurring responses, including:

- Improved outcomes for patients with psychiatric needs presenting to the ED
  - How frequently people show up in ED
- Reduction in length of stay
- Decreased wait times to access psychiatry services (door to provider time)
- Decreased throughput – arrival to disposition
- Decreased rate of admissions
- Improved relationships with EDs and community resources
- Increased medication management for patients with long stays quality
- Increased ED provider satisfaction surveys
- Increased observation and therapeutic gains / interventions while patient is in ED, as opposed to boarding.

The overarching themes we can derive from the answers above are overall increase in quality of care and patient and provider satisfaction.

As a follow up, we asked interviewees how we might go about collecting data that could track progress made on the above measures. The responses included:

- Collecting relevant data from the EMR
- Developing a satisfaction survey for providers and patients
- Creating a standardized tracking form and having pilot sites self-report on selected measures.

OVERARCHING FINDINGS

KEY INFORMANT INTERVIEWS

Are there medical conditions or other circumstances for which a telepsychiatry consultation should be avoided?

Overall, the interviewees believed that access to virtual care is better than no access to care, and that with a person physically present with the patient, coordinating a telepsychiatry consult would likely be appropriate for most. The only circumstances provided that may be particularly challenging included:

- Elderly patients, perhaps with dementia or Alzheimer's
- Patients presenting as violent
- Patients with Intellectual and Developmental Disabilities (IDDs)

Though these cases may be challenging for a telepsychiatry consult, it was noted they would likely be challenging for in-person care as well.

How would you suggest we collaborate with private practices and Designated Agencies to best meet the mental health needs of Vermonters beyond the walls of the ED?

Overwhelmingly, we heard from the interviewees that communication will be key to these efforts. The various communication methods and strategies suggested included:

- Conducting outreach to Medicaid providers
  - Socializing the VETN
  - Meeting with them to learn about the local resources available
- Identifying multidisciplinary care teams that can support diverse patient needs
  - I.e., child/adolescent, following the child through their different points of care including primary care, therapy, counseling, school issues and ED visits
  - Involve the Designated Agency screeners as a possible liaison

OVERARCHING FINDINGS

KEY INFORMANT INTERVIEWS

What are the benefits/risks of using out-of-state telepsychiatry vendor(s) to provide telepsychiatry services in VT EDs?

The stakeholders that we met with felt very strongly that if out-of-state telepsychiatry providers are to be used with the VETN, they must have access to and knowledge of local resources needed to manage the care needs of patients across the continuum of care, including transitions of care. With that in mind, below are some of the risks and benefits associated with utilizing out-of-state providers:

- Risk – Losing the ability to follow through with wraparound services (unless the providers have access to and familiarity with the local resources in the region(s))
- Risk – Providers being out of touch with capabilities of hospital, local care team in the ED
- Benefit – Supplements the local capacity to provide services, which is currently very low
- Benefit – Timely clinical expertise accessible and available for disposition and clinical needs, decision making

What considerations should be top of mind when vetting potential telepsychiatry vendors?

When asked about the top considerations of vetting an out-of-state telepsychiatry vendor, the feedback was consistent:

- Relationship building
  - Vendors should gain familiarity with the region(s) in order to make informed decisions that enable actionable next steps for the ED and patient alike
  - Ensure a small number of providers would be assigned to the hospital to avoid seeing a different provider every time the service is used
    - Build rapport with the local teams – communicate with in-person ED team as part of the workflow
    - Ensure continuity of care
- Provider types
  - Vendors having a multidisciplinary care team of mental health providers may be an asset to the care and needs of the community
- Credentialing
  - Vendors should be able to streamline the credentialing process to lighten the burden on the hospitals and avoid difficulties with implementation

OVERARCHING FINDINGS

CONSIDERATIONS FOR VETTING AN OUT-OF-STATE TELEPSYCHIATRY VENDOR

- Timeliness
  - Determine the service level agreement and maximum wait times to access service
- Integration
  - Clinical and operational integration including communication and hand offs between shifts
  - Ability to meet and integrate into existing workflow / criteria of physical site
  - Integration into the larger care plan for the patient (i.e. with other comorbidities that require acute/chronic care management)
- Experience serving rural communities
  - Contact existing rural clients for user feedback

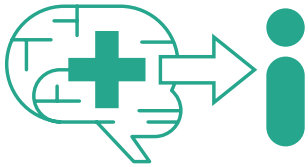
IMPACT

The needs assessment made progress toward improving the situation of Vermonters boarding in EDs for mental health services.

VPQHC received a $901,123 Congressionally Directed Spending grant from Senator Patrick Leahy (D-Vt.) through SAMHSA to support coordination of VETN. The quantitative and qualitative data collected from the needs assessment complemented data from other statewide sources to justify the project need.

MCD, NETRC, and VPQHC successfully collaborated on research methods, survey instruments, and a plan for an ongoing contractual relationship under the federally funded project. Additionally, the organizations experienced successful outreach and engagement with local stakeholders, hospitals, and subject matter experts.

Ten individuals volunteered to participate on the VETN Advisory Board.



Vermonters seeking mental health services — and the people who care for them — will become better served as a result of the needs assessment and the Congressionally Directed Spending.

LESSONS LEARNED

This planning funding was critical for informing the Vermont Emergency Telepsychiatry Network grant application to SAMHSA. This funding filled a gap between a basic understanding that more telepsychiatry services are needed in Vermont Emergency Departments and a specific understanding of what form those services should take, who would be served, what resources would be needed, and who could guide the process.

Further, this planning grant has enabled the CDS funding, which will support activities October 2022 – September 2023, to be invested directly into program implementation in order to address an immediate need.

We believe this support for planning in anticipation of the CDS funding being made available is a great role for philanthropy. What we have learned in the CDS process is that the Federal granting agencies have unique and specific requirements and restrictions. In addition to planning support, we see that philanthropy could play a significant role in filling the gaps that arise due to Federal granting agency funding restrictions, to ensure that projects are able to be implemented as envisioned and proposed by organizations on the ground in Vermont.

RECOMMENDATIONS

Given what we have learned from stakeholders and research, below are our recommendations for the VETN project:

RECOMMENDATION 1

VETN SHOULD HAVE FIVE AREAS OF FOCUS

Program Management: Increasing coordination among Vermont EDs regarding telepsychiatry services. Providing timely care in the right place at the right time in the right amount for people boarding in emergency departments awaiting mental health services.

Training: Increasing knowledge and experience of ED staff supporting telepsychiatry services.

Demonstration Projects: Reducing the time that patients wait in Vermont EDs for mental health services. Improving patient and caregiver satisfaction.

Hospital Enhancements: Increasing telepsychiatry capacity for all Vermont hospitals.

Evaluation: Understanding the extent to which the VETN project reaches stated goals and is a good investment.

RECOMMENDATIONS

RECOMMENDATION 2

CONVENE AN ADVISORY BOARD THAT MEETS REGULARLY TO DISCUSS THE PROGRAM & INFORM DECISION MAKING

Invite stakeholders periodically to share best practices. Build relationships at the academic and state levels – taken from the successful models out of North Carolina and South Carolina. Ensure the VETN is patient-centered and formed from a patient-centered design approach.

RECOMMENDATION 3

TAKE CARE WHEN VETTING POTENTIAL EMERGENCY TELEPSYCHIATRY VENDORS

Consider experience in rural health care. Confirm knowledge or ability to gain knowledge of local resources. Prioritize follow-up care for patients, communication with family and local providers. Assess ability to integrate into local hospital workflows and work with the team. Determine capacity to provide services and ability to scale beyond a pilot. Compare pricing models and select what works best with rural, low volume EDs.

RECOMMENDATION 4

WHEN SELECTING CRITICAL ACCESS HOSPITAL (CAH) PILOT SITE, CONSIDER A HOSPITAL THAT ALREADY HAS A STRONG RELATIONSHIP WITH THE LOCAL MENTAL HEALTH RESOURCES

Conduct a readiness assessment to inform selection of CAH for demonstration project. Assess technology and space for a telehealth setup. Assess data sharing capabilities and existing workflows.

RECOMMENDATION 5

AN INDEPENDENT ORGANIZATION SHOULD PERFORM PROGRAM & ECONOMIC EVALUATION

Include a cost assessment and a sustainability plan to inform financial support for the network beyond the pilot project period.

RECOMMENDATION 6

DETERMINE HOW THE VETN WILL COMPLEMENT OTHER EXISTING SERVICES OFFERED IN VT EDS, SUCH AS PEER SUPPORT SERVICES AND SERVICES PROVIDED BY THE DESIGNATED AGENCIES

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