From Wait to Wellness: How MUSC Telehealth is Reshaping Emergency Department Care

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BACKGROUND

According to recent analysis by the Health Resources and Services administration (HRSA), the United States continues to experience a mental health crisis while behavioral health needs exceed the availability of mental health providers and facilities [4]. HRSA data shows that over 122 million Americans live in areas designated as a health professional shortage area (HPSA) for mental health [3]. They estimate that over 6000 additional mental health providers are needed to bridge this gap, 1700 of which are needed in rurally designated areas [3]. As the volume of mental health patients evaluated in emergency departments (ED) continues to rise, the need for access to timely and effective mental health care is becoming increasingly necessary. Rural hospitals across the nation are implementing telehealth services to help alleviate the health disparities between rural and urban communities [2]. The Medical University of South Carolina (MUSC) Center for Telehealth (CFT) is helping decrease the effects of mental health HSPAs in the rural communities of South Carolina with the implementation of an APP forward Telehealth Emergency Department Psychiatry service.

WORKFLOW

The MUSC ED Telepsychiatry Program was developed and piloted on April 7, 2025, in the Pee Dee Division (MUSC Florence Medical Center, MUSC Marion Medical Center, and MUSC Black River Medical Center) to streamline behavioral health evaluations and throughput utilizing the Andor Health platform.

These evaluations are conducted via HIPAA-compliant audio-visual connections, enabling real-time psychiatric evaluations by board-certified Psychiatric Mental Health Nurse Practitioners (PMHNPs). This service is an advanced practice provider (APP) forward service, patients are evaluated by a PMHNP with psychiatric MD oversight. Consultation requests are initiated when a partner ED provider places a consultation order in the electronic health record (EHR). The order populates the patient on an ED Tele Psychiatry list in Epic. This allows for easy access and transparency of patient census and documentation needs. Once the order is placed, the bedside nurse or case manager adds the patient to the Andor dashboard. MUSC providers coordinate with site case managers and nurses to collect ancillary data and determine when the patient will be evaluated. The AV connection is initiated directly from the Andor dashboard by the MUSC provider.

The service model is structured to promote rapid access to psychiatric specialists to allow for early intervention and improve patient outcomes. The MUSC provider is expected to respond and initiate contact with the requesting site within four hours of the consultation request. Patient evaluations are conducted via audio-video connections, with the provider documenting their full consultation directly into the Epic EHR, ensuring seamless integration with the patient's chart and immediate availability to ED staff at partnering sites.

Key metrics collected include consult response time, time from request to evaluation, and time from evaluation to documentation completion. Data is collected manually through both the Andor platform and Epic reports pulled by MUSC clinical coordinators, allowing for continuous quality monitoring and operational process improvement.

RESULTS

During the first two quarters of implementation, 766 patients were seen within MUSC's Pee Dee Division. Of those 766 patients, 216 (28%) were pediatric patients and 550 (72%) were adult patients. The volume of consultations was relatively equal among partner sites, with most consultation requests arising between 09:00 and 21:00. Suicidal ideation/self-harm was the most common reason for consultation.7On average, telehealth providers initiated the consultation within 72 minutes of initial request and 97% of all consultation requests were completed within 4 hours of initial request during the first quarter of implementation. Early insight, that is still being validated, shows an 8% and 10% decrease in overall median D/C LOS for ED patients within Black River ED and Marion ED, respectively. Focused data collection revealed a 54% decrease in mental health LOS at MUSC FM ED, 34% decrease at MUSC BR ED and 27% decrease at MM ED.

Figure 1. Timeliness. Median response time network-wide of 69 minutes over the first two quarters of pilot.

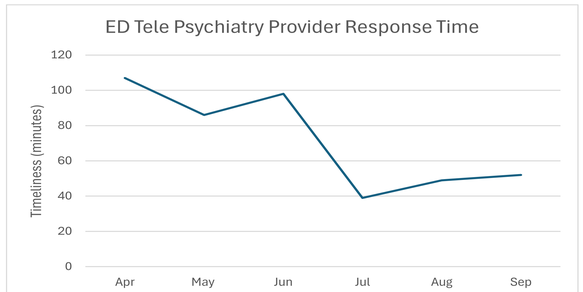


Figure 2. Volume by HOD. Most consults were requested between 0900 and 2100.

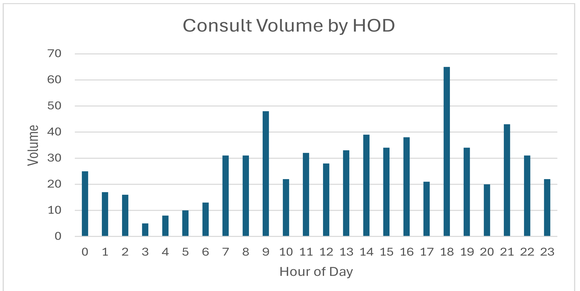


Figure 1. Overall median LOS. 8% and 10% improvement in overall median LOS were seen at BR ED and MM ED, respectively.

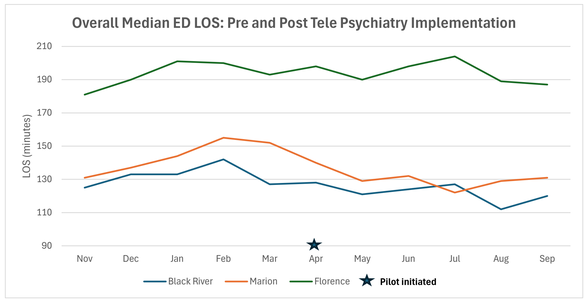
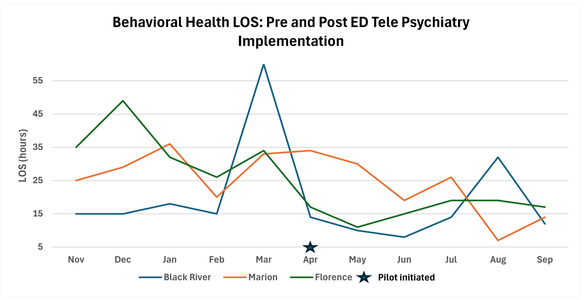


Figure 3. Behavioral Health LOS. 34%, 27% and 54% improvement in behavioral health length of stay was seen at BR ED, MM ED and FM ED, respectively.



"I have been *impressed with the quick response* time from MUSC providers."

"I think the new system you have created is excellent. Biggest difference has been ***how quickly the patient is seen and recs are in***. It used to take almost all night to accomplish the same objective."

"We really appreciate the follow-up capabilities that MUSC offers."

"The service has been ***exceptional***. The advice has been invaluable and prompt."

"I've been *impressed with the speed* with which the consults are completed and the *feedback/communication* with the providers on next steps."

"Thank you to **the Clinical Outreach Coordinator** for her *prompt* response and *attention to real-time concerns* with consults."

"**The APPs** have been a welcome addition - *consistently thorough*, *devoted* to patient outcomes, and *responsive* to requests."

DISCUSSION

The median LOS for mental health patients decreased from 29.4 hours (1.225 days) pre-implementation to 17.6 hours (0.733 days) post-implementation for the division. With an average of 383 patients per quarter, this yields 188.44 days saved per quarter and 738 hospital days saved per year. Implementing an APP forward tele ED Psychiatry program offers a cost-effective and timely solution to the mental health crisis without sacrificing patient and caregiver satisfaction.

Collaboration with on-site ED providers, nurses, and case managers is integral to the success of this workflow. The APPs work in tandem with ED clinicians to obtain collateral information, discuss clinical impressions, and coordinate care planning. Site-based case managers are engaged before, during and immediately following the evaluation to initiate placement at inpatient psychiatric facilities or to arrange community-based resources upon discharge. This collaborative and tech-enabled model reduces prolonged ED boarding of psychiatric patients and enhances throughput by facilitating timely, specialized care.

FUTURE OPPORTUNITY

Early data analysis has led to the identification of future opportunities for telehealth in the Emergency Department. MUSC Center for Telehealth envisions growth by expansion to additional partner sites across the state of South Carolina in FY26. The service aims to decrease response time within the existing Service Line Agreements to 2 hours from consultation request to initial AV connection. Data shows that suicidal ideation/self harm is the primary diagnosis for the majority of consultation requests, indicating that the use of tele-sitters may be a cost-effective way to reduce the burden on staff in the ED while enhancing patient safety. The CFT is also implementing additional telehealth psychiatry rounding services within behavioral health specialty units across our partner sites in hopes to improve continuity of care. In future collaboration, MUSC Telehealth emergency department tele psychiatry will continue process improvement with our partner site's clinical stakeholders with focused vigilance on patient throughput and disposition.

REFERENCES

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