

Virtual Care Optimization: How Tri-Area Community Health is Attempting to Increase Access to Healthcare in Rural Southwest Virginia

Isolated, sick, bedridden, or fearful, many families had to discover new ways to cope with illness, depression, and health maintenance during the COVID pandemic in 2020 and 2021. Tri-Area Community Health (TACH), located in rural Southwest Virginia, took steps to support the community with medical and behavioral health care during COVID. After an initial ad hoc effort to build out a telehealth program, TACH decided to conduct a virtual care optimization initiative. This case study summarizes TACH's progress to date and the impact it has had, and may have in the future, in terms of improving access to care to residents of rural areas.

Tri-Area Community Health

Tri-Area Community Health (TACH) is a federally-funded Community Health Center with headquarters in Laurel Fork (Carroll County), and sites in Carroll County (Laurel Fork, clinic and pharmacy), Floyd County (Town of Floyd, clinic), Franklin County (Ferrum, clinic and pharmacy), Grayson County (Fries, clinic and pharmacy-to-be; Troutdale, clinic), Patrick County (Stuart, behavioral health services only), and soon-to-be in the City of Galax (school-based health center in collaboration with Galax City Public Schools). TACH sees over 10,500 patients a year for almost 37,000 encounters across these sites. TACH employs over 150 people to provide primary medical care, behavioral health care, pharmacy services, case management, health education, transportation, outreach and enrollment, and other services. TACH's Mission is "to improve the quality of life of our patients and our communities by providing affordable, high-quality, comprehensive care and services."

Telehealth at TACH Before COVID

Before the COVID pandemic, TACH used technology to provide behavioral health services (primarily with the organization's part-time Psychiatrist when he was at his own office) and in a limited fashion with University of Virginia (UVA) medical specialists. TACH has a contract with UVA to read x-rays and digital retinopathy images, but those store-and-forward technologies will not be the focus of this discussion.

Similar to other medical and behavioral health practices, in March and April of 2020, TACH shifted to seeing a large number of patients through video technology (what we had called "telehealth" until recently). That shift continued into 2021. In 2022, as patients became more comfortable returning to in-person visits and as TACH attempted to bring patients into sites for care, the number of telehealth visits decreased.

The table below shows the shift in visit types over the past four calendar years. In 2022, TACH started a Telehealth Optimization Initiative (recently renamed "Virtual Care" Optimization) to intentionally revamp and rebuild the telehealth program from something that was developed ad hoc to a more comprehensive program with streamlined processes and workflows. This also contributed to the decrease in telehealth visits in 2022. The optimization initiative will be the focus of later sections.

2019 Calendar Year	2020 Calendar Year	2021 Calendar Year	2022 Calendar Year
36,008 encounters	30,232 encounters	33,933 encounters	36,790 encounters
Clinic 35,861	Clinic 24,721	Clinic 28,761	Clinic 33,402
Virtual 147	Virtual 5,511	Virtual 5,172	Virtual 3,388

As a part of the safety net, Community Health Centers, including TACH, are committed to providing care to all people, especially those in need, regardless of the ability to pay. Community Health Centers are supposed to help increase access and reduce barriers to care. The expansion of TACH’s virtual care program is an extension of ongoing organizational efforts to expand access and reduce barriers, consistent with TACH’s Mission. Virtual Care can be especially helpful for people living in rural areas because of the challenges associated with transportation, travel distances and time, and associated costs. Unfortunately, virtual care can be difficult in rural areas because of the lack of infrastructure and the cost associated with high-speed service. Local, state, and federal governments have made significant financial commitments to improving the infrastructure; however, the cost of services remains a concern.

TACH’s New Commitment to Utilizing Technology to Increase Access

The COVID pandemic led the TACH leadership and Board of Directors to reflect on the potential future of healthcare. This led to a decision to seek input from all employees about what they thought TACH needed to do to provide the best care to the most people now and in the future. One piece of this was a “SWOT” (i.e., Strengths / Weaknesses / Opportunities / Threats) Analysis undertaken in mid-2021. Based on this SWOT Analysis, TACH decided to place an emphasis on technology and innovative expansion of “telehealth” for patients.

In August 2021, TACH established a Vision of becoming the “Model Health Center of the Future,” which included an emphasis on enhancing technology and expanding telehealth offerings. Consultants were hired to guide and assist TACH in ensuring quality and integrity moving forward. A Telehealth Coordinator, later renamed Virtual Care Coordinator, was hired in February 2022, and began working closely with the consultants to develop a plan for implementing a Telehealth Optimization Initiative. The goal of this initiative is to help TACH create a comprehensive, forward-thinking, adaptable plan for how to maximally utilize technology to provide as many services to as many people as possible within TACH’s service area.

“The expansion of TACH’s virtual care program is an extension of ongoing organizational efforts to expand access and reduce barriers, consistent with TACH’s Mission.”
James Werth, Jr., TACH CEO

Telehealth Optimization Framework

TACH’s consultants had worked with other healthcare organizations to implement / overhaul / expand telehealth services and therefore had a plan for how to help TACH move forward. The consultants provided a Telehealth Optimization Framework that outlined the

primary focus areas of improvement, which is shown in the figure below. Each of the seven components of the framework is described in more detail with examples of how TACH implemented each concept.



Leadership, Governance, and Support

The first step in the Telehealth Optimization Project was to ensure support from leadership. As part of the overall organizational transformation, the consultants worked with TACH’s Leadership Team to develop a list of ranked priority areas. “Optimizing Telehealth Services” was the top item on the list. This set the stage for the Telehealth Optimization initiative, which was supported by the TACH Board of Directors.

Telehealth Steering Team

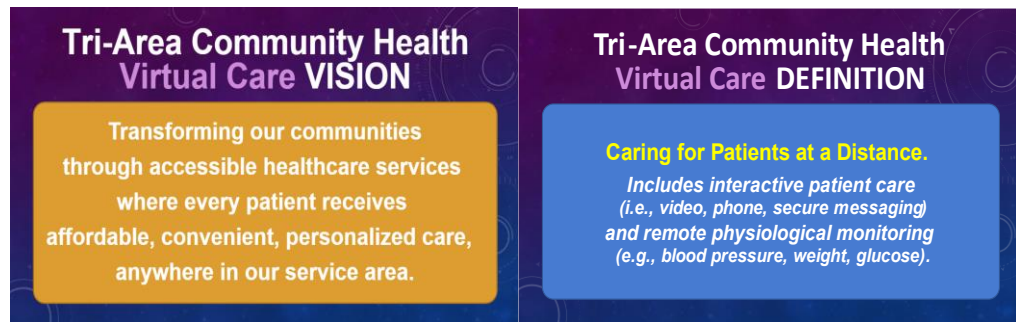
To implement the Leadership, Governance, and Support aspect of the Framework, TACH created a Telehealth Steering Team, the responsibilities of which are outlined in the figure below.



In the beginning, the consultants led the Steering Team meetings; however, over time, the Virtual Care Coordinator began leading the meetings and directing the group’s efforts. The Steering Team included the CEO, Chief Operations Officer, Clinical Operations Director, Technology Director, Accounts Receivable Manager, a Medical Provider, and a Behavioral Health Provider. Biweekly meetings aided in clear communication of needs, status updates, feedback, strategy decisions, resolving issues, and outlining performance management goals. The Virtual Care Coordinator utilized an “issues tracking” spreadsheet to help monitor high priority items. The team continues to steer

improvements, allocate resources, uncover obstacles, and provide support for initiatives to help the project expand and move forward.

One of the actions taken by the Steering Team was to decide to switch from using the term “telehealth” to “virtual care.” After much discussion, the Steering Team decided that virtual care was broader and encompassed a wider variety of current and emerging technologies. In addition to this change in terminology, the Steering Team also developed a Vision and definition related to virtual care (see figures below).

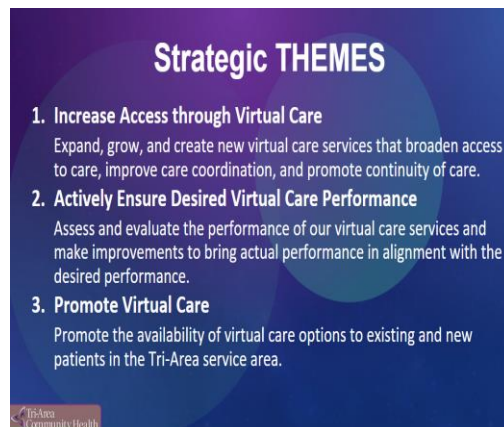


Virtual Care Strategy

Once the leadership is established, a vital component of the Telehealth Optimization Framework is developing a Virtual Care Strategy that will provide a plan for the direction of the program. As with any strategic planning process, there are several steps and layers. What is different in this context is that the Virtual Care Strategy must align with, and complement, the overall organizational strategic plan.

Strategic Themes

Virtual Care allows the opportunity to add exciting services to broaden access to meet various patient needs. Expanding services, promoting access to new and existing patients, and offering continuity of care while monitoring performance through data-driven decision making became the basis of TACH’s strategic themes (see the figure below). Of central relevance to this report, the first theme is to “increase access through virtual care.”



Workflow & Policies

In order to move from strategy to reality, there must be a focus on how to integrate virtual care into the workflows of everyone associated with providing care, from the front office to the clinical staff to the providers and then back to the front office. For clinics used to offering only in-person care, the idea of adding a new service line can be daunting. To be successful, everyone in the patient's chain from the initial phone call through check-out and making the next appointment must be part of the planning and testing of policies, procedures, and processes. Cross-departmental communication is critical. The different types of scenarios need to be modeled and planned for (e.g., provider-on-site video visit, provider-at-home video visit, phone visits, site-to-site video visits, patient at home video visit, patient in clinic video visit). Walk-throughs can be helpful in identifying bottlenecks and sticking points.

Patient Tech Checks

People living in rural areas face several challenges to being able to fully utilize virtual care. One of the key issues is not having access to the Internet at all or not having access to reliable high-speed Internet. In addition, some people are uncomfortable with technology or not used to videoconferencing and are much more comfortable with using the phone. Unfortunately, phone calls are of limited use in many situations and may not be reimbursable.

To reduce the likelihood of problems with poor connectivity interfering with effective virtual visits and/or patient discomfort, TACH implemented the use of patient "tech checks." One of the Virtual Care Coordinator's roles is to assist patients prepare for their first virtual visit. The Virtual Care Coordinator calls the patient to ask if they can access their email or text that has a sample link and she then offers connection testing. They then connect to have a practice video visit, which ensures audio and video are functional as well as helping the patient understand how to position the camera, what sort of lighting is best, and the need for a quiet environment. Patients also are reminded of the need to join 10 minutes before their scheduled appointment time to ensure connectivity and enable triage to take place before the provider comes online. Patients have universally expressed gratitude and say they feel supported after the tech check.

Technology

Patients are not the only ones who struggle with Internet service in rural areas. TACH's two largest sites were served by a carrier that restricted speeds to 1/5 to 1/2 of the speed at other sites, which were served by a different carrier. This interfered with TACH being able to have multiple virtual visits happening at the same time and/or made visits impossible because of the slow speed. As a result, until TACH negotiated contracts with a new carrier, these sites had less utilization. In addition, TACH needed to upgrade its computer and peripheral (e.g., camera, microphone) options for providers.

Technological Enhancements

The consulting team made recommendations regarding the best options for providers, medical exam rooms, and behavioral health rooms. Providers at various TACH

sites had different office set-ups (individual, shared, suite of cubicles), which required specialized equipment. The ideal technological station needs were documented, items ordered, and equipment installed based on Medical or Behavioral Health office type so patients could have a high-quality virtual experience.

The virtual care rooms at each site also were enhanced to provide the best experience for patients. Sofas, lamps, care boxes, appropriately sized monitors, and stable equipment were added. Patient feedback has been positive. Each site also will receive upgrades in selected medical exam rooms so that they are telehealth enabled, including adding carts that allow for medical peripherals such as stethoscopes, horus scopes, and better cameras. Patients with specific conditions may be able to receive peripherals that they can use at their home to maximize the benefits of virtual visits.

Clinician Engagement

Some medical and behavioral health providers embrace virtual care as efficient and effective. Other providers may not be comfortable with technology, may be fearful of change, or might believe that they cannot accurately assess a patient through video. Obviously, for virtual care to be successful, providers must be willing to use it and convey confidence in the visit for patients to be willing to utilize this approach. Providing training to providers from a seasoned virtual care provider can help alleviate their concerns and demonstrate that virtual visits can be effective for many types of primary and specialty care needs.

“Virtual Care has given providers the ability to care for patients in a way like never before. Continuity of care is one of the most important aspects of medicine and virtual care helps facilitate that by giving patients access to follow-up appointments and medication management for many who would otherwise not be able to make it into the clinic.”

Beverly Davis, Physician Assistant at the Ferrum Clinic

Clinically Appropriate Scheduling Guidance

A key aspect of Clinician Engagement and provider collaboration at TACH was the creation of a “Clinically Appropriate” list, based on the patient’s self-reported symptoms, for scheduling of virtual visits. The development of the list was led by the Steering Team Medical Provider and was shared with medical and behavioral health providers at all sites to gather input. Age appropriateness for medical and behavioral health visits was designated. The clarity associated with this list should assist with scheduling guidance and decrease transferring patients back and forth between front office and clinical support staff. Schedulers also will be able to offer a virtual visit when patients call to cancel or indicate that they do not have transportation, if the symptom is clinically appropriate.

Performance Management

Data-driven decision making is essential for progress. Tracking technical/technological performance, patient and provider satisfaction rates, revenue / reimbursement, visit volume by modality (distinguishing between medical and behavioral health), and site-specific issues can

assist the Steering Team and organizational leadership in making informed decisions. Monthly reporting and analysis of data provided to the Steering Team helps identify future targets and potential for meeting goals.

Tracking Metrics

One of the key metrics that TACH has tracked over time as a proxy to some of the other measures is no-show rates, comparing the in-person rate with virtual visit rate for medical appointments. From January 2022 – July 2023, the in-clinic no-show rate averaged 6.6% per month whereas the virtual visit no-show rate averaged 2.6%, with the in-person rate lower than the virtual visit rate in only two of these 19 months. With the use of the Clinically Appropriate list mentioned above, there is the possibility of the clinic rate decreasing with patients being switched to virtual visits when possible.

Marketing

Marketing is an important part of making the virtual care service line successful and sustainable. In order to compete with non-local providers who have large marketing budgets and identifiable names, small clinics like TACH must be able to market their virtual care program confidently and assertively. However, it is important that the service be optimized prior to advertising because if patients have bad experiences, when that type of feedback gets into the community, it can be hard to get people to try the service for future visits.

Reaching the Right Patients

As a Community Health Center, TACH has a designated “service area” that is intended to be where the majority of TACH’s patients reside. When patients are coming for in-clinic care, it is natural that they will, in all likelihood, live in the service area in order to access the sites. However, as TACH increases its emphasis on virtual care, one of the considerations is how to market in such a way that patients in other Community Health Center service areas do not transfer their care in large enough numbers that it appears as if TACH is taking patients from other centers. Other types of clinics may not have the same constraints and may decide to market widely.

Ways of Increasing Access Through Virtual Care

TACH is moving from the basic aspects of the Telehealth Optimization initiative into the implementation phase. Beyond the basic virtual visit where the medical or behavioral health provider connects with a patient through a videoconferencing system, TACH is looking at various ways to expand the virtual care options. In this section we highlight three projects that show promise. There are several other possibilities in the development phase, including using technology to assist with school-based and employer-based care as well as providing community-based access sites (possibly including a mobile unit).

Virtual Care for Persons with Diabetes

For several years, TACH has had a partnership with an Endocrinologist, Dr. Richard Santen from the University of Virginia, who has worked with patients with diabetes symptoms

that have been difficult to control. Dr. Santen sees all patients using video and phone meetings and collaborates with TACH's Certified Diabetes Care and Education Specialist, Carla Horton. Even though Dr. Santen has never met the patients in person, they establish a connection, and they trust him with their care. In fact, the results Dr. Santen achieves have been so impressive that there have been several professional publications related to his work and it has been identified as a "Telehealth Promising Practice."

"The good thing about telehealth with Dr. Santen is that, typically within two visits, he gets patients in good control with their diabetes so they can be released back to their Primary Care Provider in 6 months or less and with their A1C's showing good diabetes control."

Carla Horton, Certified Diabetes Care and Education Specialist

Community Paramedicine Program

TACH is collaborating with the Franklin County Department of Public Safety and Carilion Franklin Memorial Hospital in Rocky Mount to establish a Community Paramedicine Program. The project is designed to increase access, decrease 911 calls and emergency department trips, and address social drivers of health. The initial focus is on patients with behavioral health concerns who have had repeated trips to the hospital. The project is in its early phases, so the focus has been on in-person visits by the Paramedics. However, the next phase is to add a virtual care component that will allow the Paramedic to connect with TACH staff for a live session from the patient's home with the medical provider, behavioral health provider, Case Manager, or Clinical Pharmacist.

Remote Physiological Monitoring

Remote Physiological Monitoring (RPM; also called Remote Patient Monitoring) is a form of virtual care that allows medical providers to monitor, track, and manage their patients' chronic health conditions. TACH is one of five organizations partnering with the University of Virginia to do RPM for congestive heart failure. TACH will receive monitoring equipment for 40 people that will allow patients to use equipment that is connected to the Internet to monitor their health, including blood pressure, temperature, and weight. If any health measure moves into a potentially dangerous level, specially trained staff will check in with the patient. This project is about to start so there is no information to report yet.

Conclusion

Tri-Area Community Health's Virtual Care Optimization Initiative is allowing TACH to move beyond the ad hoc implementation of telehealth to develop a comprehensive, well-planned program that will increase access to care for rural patients now and in the future. The behind-the-scenes work has set the stage for opportunities to significantly expand the typical videoconferencing visit to additional types of virtual care, including specialty services (e.g., diabetes care), collaboration with other groups (e.g., community paramedicine), and around-the-clock monitoring of patients to prevent health crises (e.g., RPM). TACH is excited to continue to expand virtual care to increase access and reduce barriers for rural patients.

“Virtual care allows me to work with patients who may otherwise not have consistent access to behavioral health care. For many patients with transportation problems, financial issues, and/or severe anxiety, it is invaluable. It also allows us to get patients in to a Behavioral Health provider ASAP no matter their location or the availability of the provider closest to them. Although there have been some challenges for us in coordinating care across clinics, we have worked through most of these issues and have a telehealth system that works smoothly most of the time. When there are issues, we have become skilled at addressing them quickly and efficiently.

There are many new and emerging online programs that allow people to access behavioral healthcare virtually from home. Unfortunately, many of these programs are costly and many do not accept insurance. Use of telehealth through our system erases some of these inequities, allowing those without as much financial privilege to access the latest conveniences in care. Most therapy modalities can be conducted virtually, and research is backing the effectiveness of telehealth services. Although there are some inconveniences, the benefits outweigh them. Virtual care also allows for flexibility that helps to reduce no shows and late cancellations. I give my in-person patients the option to call and change their visit to a virtual visit if they find they do not have gas money, their ride falls through, or other circumstance make it hard for them to come in person.”

Paige Billman, Licensed Clinical Psychologist in Grayson County

NOTE: For more information about virtual care, see the Mid-Atlantic Telehealth Resource Center (MATRC; <https://www.matrc.org/>) and the Virginia Telehealth Network (<https://www.ehealthvirginia.org/>).