SCTA Quarterly Report
CY18 Quarter 2

Progress achieved on the 2018 SCTA Strategic Plan
April - June 2018

SOUTH CAROLINA
Telehealth
ALLIANCE

Executive Summary

In the second quarter of 2018 (CY18Q2), the SCTA continued to make progress on the goals outlined in the 2018 SCTA Strategic Plan. The **SCTA Program Request Form** process has been fully implemented, allowing the SCTA to address telehealth needs across the state in a more coordinated way. The SCTA regional hubs continued to build and scale their telehealth clinical services, with both McLeod Health and MUSC Health going live with **inpatient telepsychiatry** this past quarter. SCDMH continued to lead the statewide efforts to **broaden mental health access** via telehealth, and progress was also made on the statewide efforts to extend **Medically Assisted Treatment (MAT)** via telehealth to address opioid use. The SCTA continued to share the story of telehealth's growth and impact in South Carolina through SCETV's My Telehealth campaign, and the SCTA published its **2018 Payer Coverage Priorities** document (Appendix B) to move forward conversations with payers on telehealth reimbursement.

This report provides further details on these accomplishments from CY18Q2 and notes other progress made to achieve the milestones outlined in the 2018 strategic plan.

Mission

Improve the health of all South Carolinians through telehealth.

Values

Patient centered
Quality
Collaboration
Sustainability
Accountability

Vision

Telehealth will grow to support delivery of health care to all South Carolinians with an emphasis on underserved and rural communities. It will facilitate, coordinate and make more accessible quality care, education and research that are patient centered, reliable and timely. Our state will become recognized nationally for telehealth that is uniquely collaborative, valuable and cost effective.

Value Proposition

Telehealth in South Carolina will deliver high value through productive collaboration.

Driving Strategy 1

Deploy a coordinated, open-access telehealth network in South Carolina.

The **SCTA IT Workgroup** met in CY18Q2 and included IT leadership from CareSouth, Clemson, Greenville Health System, Palmetto Health, McLeod Health, MUSC Health, and Palmetto Care Connections (PCC). In addition to discussing progress on current Strategy 1 initiatives, the group identified important issues to consider for the upcoming strategic plan. Topics included further defining the SCTA open-access standards, providing recommendations around remote patient monitoring, and enhancing coordination of IT support across SCTA hub and support organizations. (1.3)

The **SCTA program request form** process has been fully implemented. Organizations within South Carolina are now able to request telehealth equipment and/or consultation from the SCTA through the SCTA's website, and these requests are then triaged to the appropriate telehealth hub or support organization. This process has led to increased transparency and coordination across the SCTA. The SCTA received **26 formal program requests** for equipment or consultation in the first two quarters of 2018. (1.2)

Led by PCC, work on the **centralized credentialing pilot** has continued in CY18Q2. The goal of this pilot is to streamline credentialing for spoke hospitals using a common database and a Credentialing By Proxy process. The database was built in CY18Q2 based on feedback from the credentialing workgroup. SC Department of Mental Health (SCDMH) has shared all of its provider credentialing data with PCC, which in turn will be added to the database. As this pilot progresses, the workgroup will begin to assess the overall feasibility and sustainability of this model. (1.4)

The **SCTA IT help desk system** is live and operational. Plans to expand the SCTA ticketing system have been delayed until the MUSC enterprise migration has been complete. The SCTA IT Workgroup discussed this tactic at length during its June meeting, and the group agreed to revisit when it meets in the fall for strategic planning. (1.1)

2018 SCTA Strategy 1 - Milestones

Strategy 1: Deploy a coordinated, open-access telehealth network in South Carolina.

Milestones	Timeline	Champion	Status	Notes
Tactic 1.1: Effectively utilize the shared IT support request mechanism to ensure timely IT support for telehealth-related activities across the state				
Explore the possibility of service portal integration across multiple agencies' ticketing systems.	March	IT Workgroup	Deferred	Deferred due to delays in MUSC enterprise help desk upgrade; this tactic has been deferred to the upcoming calendar year.
Implement upgraded help desk system. Develop and further refine knowledge base to accompany help desk system to inform and assist future users	June	IT Workgroup		
Create a directory of technical contacts for routing issues to; determine a mechanism for keeping this directory updated	September	IT Workgroup		
Tactic 1.2: Enhance the process for sites requesting assistance from the SCTA to include not only equipment requests but also additional consultation on the clinical or administrative aspects of implementing telehealth.				
Revise the online request form, and establish a process for reviewing requests. Integrate request form with CRM and help desk systems.	March	IT Workgroup	Complete	
Implement revised request process and report quarterly on requests received and addressed.	June	IT Workgroup	Complete	
Tactic 1.3: Engage in quality improvement efforts to ensure SCTA technical standards and protocols continue to meet industry standards and that SCTA IT solutions meet SCTA hub needs.				
Convene IT workgroup for a spring meeting to review and evaluate current standards and solutions (e.g. help desk system, program request form, etc.).	June	IT Workgroup	Complete	
If determined necessary, update standards and protocols and implement recommended changes to IT solutions.	September	IT Workgroup	Pending	Due Q3
Tactic 1.4: Establish a mechanism to streamline credentialing process for telehealth providers				
Finalize the centralized credentialing pilot project design to include telehealth providers from MUSC and SCDMH. Develop a universal *Credentialing By Proxy* contract on behalf of the telehealth hubs to use with spoke hospitals. Identify and hire Credentialing Coordinator.	March	PCC	Complete	
Work with credentialing vendor to complete the data interface. Transfer credentialing data from MUSC and SCDMH services.	June	PCC	In progress	Due Q2
Report the number of sites participating in the credentialing model. Develop a plan to expand pilot to include other telehealth hubs.	September	PCC	Pending	Due Q3

Driving Strategy 2

Understand and effectively respond to the needs of users of telehealth with an emphasis on the underserved and rural.

Palmetto Care Connections (**PCC**) has continued to lead the SCTA's efforts to expand broadband in SC's rural and underserved communities. In CY18Q2, PCC submitted approximately 20 million dollars of funding requests for subsidized broadband through the FCC's Healthcare Connect Fund. The applications submitted include over 200 new PSPN circuits and include applications from 10 new health care organizations. If all subsidies are awarded, these efforts would result in FCC subsidies for over 450 circuits at 260 different sites across SC, *ultimately leading to around 13 million dollars of savings for SC health care organizations over the next 3 years*. (**2.1**)

In CY18Q2, the SCTA finalized the build of its joint **customer relationship management database** based on feedback from PCC and the regional hubs. MUSC uploaded all of its telehealth site data in CY18Q2 and is currently testing the database functionality. In the upcoming quarter, PCC and regional hubs will receive individualized training on the database and will begin tracking their own site engagement by the close of CY18Q3. This database will not only enhance coordination across the state but also provide a streamlined tool for reporting. (**2.2**)

To better optimize the telehealth participation of rural providers, PCC has partnered with SC AHEC and the SC Primary Health Care Association to administer a **telehealth educational needs assessment** among the federally qualified health centers. The instrument was finalized in CY18Q2 and will be administered by the SCPHCA leadership in the quarter to follow. PCC also hired an **RN Clinical Coordinator** in this past quarter to support rural practices with telehealth implementation and optimization; this coordinator is currently training with MUSC telehealth staff and will begin working with various rural practices in Q3. (2.3)

2018 SCTA Strategy 2 - Milestones

Strategy 2: Understand and effectively respond to the health needs of SC citizens with an emphasis on those living in underserved and rural areas.

Milestones	Timeline	Champion	Status	Notes
Tactic 2.1: Grow the number of rural health care sites connected to the broadband required to participate in telehealth services.				
Identify providers to target within counties identified by the FCC as having low broadband connectivity.	March	PCC	Complete	Although PCC has not had the capacity to identify specific providers given the high demand for application assistance, PCC has generally targeted FQHCs and low connectivity areas in its outreach efforts.
Contact identified sites in highest priority counties to initiate discussions regarding need for and installation of broadband, and subsequently telehealth services.	June	PCC	Complete	
Report on progress with the identified sites as well as potential alternative sources of funding.	September	PCC	Pending	Due Q3
Tactic 2.2: Equip additional providers in rural & underserved areas with the technology & training needed to provide telehealth services.				
In conjunction with MUSC, develop a process for improving communication & coordination of incoming requests for assistance to ensure appropriate assignment of resources. Document all current and past site engagement in selected CRM platform (e.g. Salesforce).	March	PCC	In Progress	MUSC finalized the CRM database in Q2 and will be training PCC and hubs on documentation in Q3, with the goal of fully documenting engagement by the close of Q3.
Evaluate newly developed process for improved communication & coordination & revise as necessary.	June	PCC		
Tactic 2.3: Develop a mechanism to optimize the experience and participation of rural health clinics with telehealth service lines.				
Identify a needs assessment process for rural clinics that will assist them in adding new service lines or ensure existing service lines are being utilized effectively.	March	PCC	Complete	
Begin to implement assessment process with rural clinics.	June	PCC	In Progress	SCPHCA will be distributing the assessment among the FQHCs in Q3.
Report findings from assessments to service line providers and coordinators. Develop a manual of best practices for working with rural clinics.	September	PCC	Pending	Due in Q3
Tactic 2.4: Use telehealth to help enhance access in rural & underserved areas to the full continuum of care for disease management.				
Identify a chronic disease (e.g. diabetes) prevalent in rural South Carolina to address. Identify current resources, initiatives, and programs already in place addressing that chronic disease.	March	PCC	In Progress	Initial resource gathering has begun. This initiative has been delayed due to staffing changes.
Identify continuum of care models that use telehealth to combat chronic disease in rural communities. Select a rural SC community to focus on with full continuum of care model.	June	PCC		
Communicate with health care providers in chosen rural community to gain their input and buy-in on the model.	September	PCC	Pending	Due in Q3

Driving Strategy 3

Build and scale telehealth clinical services and programs that expand access to care.

Led by the four SCTA regional hub health systems—**Greenville Health System (GHS), Palmetto Health, McLeod Health,** and **MUSC Health**—this strategy has been divided into four overarching tactics, each with its own subtactics and milestones.

Supporting Community Hospitals (3.1)

Rather than establishing a new workgroup, the SCTA decided to address statewide telestroke priorities through the preexisting **SC State Stroke Coordinators Group**, which meets quarterly at the SC Hospital Association. Members of this group have already begun working collaboratively on developing a shared tool for better communication between hospitals and EMS providers regarding post-TPA patient care. (**3.1.A**)

Under the leadership of the **Children's Telehealth Collaborative** (**CTC**) and with support from the Duke Endowment, both GHS and Palmetto Health have gone live with their **pediatric critical care consultation** programs, joining MUSC Health in providing consults to children presenting to rural emergency departments. McLeod Health has installed equipment, trained its providers, and is on track to go live with this service in the upcoming quarter. In CY18Q2, the SCTA and CTC also began discussing funding arrangements to sustain focused telehealth development within the state's Children's Hospitals. (**3.1.B**)

2018 SCTA Strategy 3 - Milestones

Strategy 3: Build and scale telehealth clinical services and programs that expand access to care.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 3.1: Support community hospitals with the availability of specialty and subspecialty services.				
Subtactic 3.1.A: Optimize the delivery of telestroke services.				
Identify members to serve on a SCTA telestroke workgroup.	March	MUSC	Complete	
Convene first SCTA telestroke workgroup meeting.	June	MUSC	In Progress	The telestroke workgroup will hold its first meeting in Q3.
Draft short term objectives and long term vision to improve statewide telestroke care.	September	MUSC	Pending	Due in Q3
Subtactic 3.1.B: Implement a pediatric critical care telehealth service.				
Create clinical and operational workflows.	March	Children's Telehealth Collaborative	Complete	
Install equipment and train stakeholders on workflows and technology.	June	Children's Telehealth Collaborative	Complete	
Implement a pilot of the new service to support a community hospital(s).	September	Children's Telehealth Collaborative	In progress	Due in Q3

Driving Strategy 3

Build and scale telehealth clinical services and programs that expand access to care.

Supporting Community Hospitals - continued (3.1)

Each of the regional hubs has been working to develop new or expand existing adult inpatient telehealth services to support community hospitals in their region.

- **McLeod Health** made progress on multiple inpatient service fronts in CY18Q2, going live with both pulmonary and telepsychiatry consults and growing its cardiology telehealth program's volumes to the point that it needed to bring on an additional provider.
- **GHS** went live with an emergency department telepsychiatry program this past quarter, providing both pediatric and adult psychiatry consulting to **Greer Memorial**, **Laurens County Memorial**, **Oconee Memorial**, and **Hillcrest Memorial Hospitals**.
- **Palmetto Health** and **GHS** have identified clinical champions for their inpatient telepsychiatry programs, and provider credentialing and workflow development are currently underway. **Palmetto Health** also moved forward in identifying a short-term tele-ICU solution to meet its intensivist coverage needs and plans to implement a "round and respond model" at its **Baptist** and **Baptist Parkridge** locations this fall.
- **MUSC Health** went live with its own inpatient telepsychiatry program this past quarter, providing short-term services to **Palmetto Health - Tuomey** while Palmetto Health builds out its own program. MUSC plans to extend this service line to **Tidelands Georgetown Memorial Hospital** and **Tidelands Waccamaw Community Hospital** in the quarters to follow. Additionally, MUSC Health expanded its telestroke and tele-neurology services to **Spartanburg Regional Health System** in CY18Q2. (**3.1.C**)

The hospitals in the MUSC Health/Advanced ICU Care's tele-ICU program participated in an in-depth **tele-ICU evaluation** regarding the value of the program to their hospitals. A summary report of the tele-ICU evaluation is attached (Appendix A). These findings will be shared with telehealth hub and advisory council leadership in the upcoming quarter, and findings will be used to inform the growth of the tele-ICU program. (**3.1.D**)

2018 SCTA Strategy 3 - Milestones

Strategy 3: Build and scale telehealth clinical services and programs that expand access to care.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 3.1: Support community hospitals with the availability of specialty and subspecialty services.				
Subtactic 3.1.C: Develop adult inpatient telehealth services that meet the needs of the respective region.				
Each regional hub will identify an adult telehealth service(s).	March	MUSC Health	Complete	
Clinical and operational champions identified.	June	MUSC Health	Complete	
Clinical and operational workflows drafted.	September	MUSC Health	Complete	
Implement a pilot of the new services to support a community hospital(s).	December	MUSC Health	Complete	
Subtactic 3.1.D: Evaluate the quality impact and feasibility of tele-ICU.				
Conduct an assessment of tele-ICU activity in SC hospitals.	March	MUSC Health	Complete	
Publish a summary report of SC tele-ICU activity to include clinical outcomes, financial metrics and qualitative assessments.	June	MUSC Health	Complete	
Provide recommendations for action items in response to summary report.	September	MUSC Health	In Progress	Due in Q3

Driving Strategy 3

Build and scale telehealth clinical services and programs that expand access to care.

Supporting Primary and Ambulatory Care (3.2)

MUSC Health's plans to develop an **e-consult platform** have moved forward, with MUSC planning to select a vendor and build the platform in the upcoming year. Once built, this solution will provide an asynchronous mechanism for primary care providers to request consultations from specialty providers. MUSC Health piloted its **diabetic retinopathy program** at one of its outpatient clinics in CY18Q1, and in this most recent quarter the program was extended to **Harvest Free Medical Clinic in North Charleston**. Using telehealth, this program allows patients to be screened for retinopathy at their primary care provider's office rather than having to schedule a separate ophthalmic appointment. The program has facilitated 174 screenings since going live. (**3.2.A**)

MUSC Health's two **regional multispecialty clinics** developed in partnership with **Tidelands Health** and **RMC-Orangeburg** went live in CY18Q2. These regional clinics have dedicated telehealth space and personnel, allowing patients to receive a range of specialty adult and pediatric services from MUSC closer to home. Live services include stroke, epilepsy, neuropsych, vascular surgery, movement disorder, and sickle cell. MUSC has been in conversations with two of its other affiliates—**Carolina Pines** and **Beaufort Memorial**—about developing similar clinics. **McLeod Health** has also made efforts to support primary care and ambulatory practices, going live with its **diabetes telehealth education program** in CY18Q2. Additionally, they have identified telepsych consults for their family medicine residency program and vascular surgery consults at **Fresenius Kidney Care Dialysis Center** as two additional service lines to develop this fall. (**3.2.B**)

In CY18Q2, **GHS, Palmetto Health,** and **MUSC Health** began to plan a statewide **maternal fetal medicine** (**MFM**) **telehealth initiative**. Initial meetings involved executive leadership and MFM physician champions from each of the three hubs, and the group agreed on an initial scope of the project. Targeting rural OB/GYN practices, this initiative will include both clinical MFM telehealth consults and a Project ECHO program aimed at increasing provider competency in managing their high-risk pregnancy patients. Physicians and staff from all three hubs will attend the Project ECHO immersion training at the University of New Mexico in Q3, and the virtual solution for the shared call pool for MFM telehealth consults is in development. (**3.2.B**)

2018 SCTA Strategy 3 - Milestones

Strategy 3: Build and scale telehealth clinical services and programs that expand access to care.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 3.2: Support primary and ambulatory care providers with efficient access to specialty care.				
Subtactic 3.2.A: Implement asynchronous mechanism to better support primary care providers and improve efficiency of the referral process.				
Assess products that can provide asynchronous exchanges of medical information with primary care providers.	March	MUSC Health, PH	Complete	MUSC's diabetic retinopathy program pilot is live and growing.
Begin implementation of pilot service in at least one region.	June	MUSC Health, PH		
Implement pilot of telehealth services(s).	September	MUSC Health, PH		MUSC's e-consults platform and PH's behavioral health solution move forward but likely will not go live until 2019.
Subtactic 3.2.B: Establish regional telehealth access points for the equitable delivery of specialty care.				
Identify regions to pilot the delivery of specialty care telehealth services.	March	MUSC Health, PH	Complete	
Establish clinical and operational workflows	June	MUSC Health, PH	Complete	
Implement pilot of telehealth services(s).	September	MUSC Health, PH	Complete	

Driving Strategy 3

Build and scale telehealth clinical services and programs that expand access to care.

Supporting Schools and Correctional Facilities (3.3)

The **school-based telehealth workgroup** held its second meeting with new membership in CY18Q2. The workgroup developed a prioritization matrix and data methodology for identification of high priority school districts. Six priority school districts have been approached by workgroup members across the state: **Darlington, Cherokee, Lexington One, Fairfield, Allendale/Dillon** and **Spartanburg**. Next steps are to use asthma emergency department data and the prioritization matrix to identify additional high-need school districts. (**3.3.A**)

MUSC Health and **Palmetto Health** continue to develop telehealth partnerships with **correctional facilities**. MUSC Health continued its tele-urgent care services with **Al Cannon Detention Center** and is working with the **SC Department of Corrections** to mature their telehealth partnership. For example, in CY18Q2, MUSC Health provided two follow-up stroke visits to an inmate at **Lee Correctional Institute**, *saving the state up to $4,000 in transfer costs for that one patient alone*. Plans also moved forward in CY18Q2 for Palmetto Health/USC to provide clinical services to correctional facilities in their area, with an initial focus on episodic and preventative screenings in Q3 and hopes to expand to specialty consults and chronic care management soon after. (**3.3.B**)

Direct-to-patient Opportunities (3.4)

The **direct-to-consumer (DTC) workgroup** was relaunched in CY18Q2 with increased membership from across the SCTA. Members of the DTC workgroup submitted information about the specific DTC initiatives taking place at their organization as well as the metrics currently being used to measure success. Workgroup members began to work toward some common measures across programs, and they identified key topics to address at future meetings, including tactics to nurture and retain first time patients, providing antibiotic education in the context of DTC, and assessing the impact of solutions with direct messaging capabilities. (**3.4.A**)

In CY18Q2, MUSC Health went live with its direct-to-consumer **MUSC Virtual Care platform** for its ACO patients. This new solution includes an asynchronous online health interview that can be elevated to a real-time video visit when necessary. MUSC Health plans to go live with this service for the general public in the next quarter. (**3.4.A**)

2018 SCTA Strategy 3 - Milestones

Strategy 3: Build and scale telehealth clinical services and programs that expand access to care.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 3.3: Extend care to population-based settings to improve access to convenient, cost-effective healthcare.				
Subtactic 3.3.A: Increase access to medically-underserved children through the expansion of school-based telehealth.				
Identify regions to pilot the delivery of specialty care telehealth services.	March	MUSC Health, PH	Complete	
Establish clinical and operational workflows	June	MUSC Health, PH	In Progress	Expansion to new school districts will be reported in Q3.
Implement pilot of telehealth service(s).	September	MUSC Health, PH		
Subtactic 3.3.B: Implement urgent care telehealth services to jails and skilled nursing facilities to decrease the costs of avoidable readmissions and transfers.				
Implement pilot of tele-urgent services to jails and skilled nursing facilities.	June	MUSC Health	Complete	
Report on initial successes and challenges of tele-urgent services.	September	MUSC Health	Pending	Due in Q3
Tactic 3.4: Understand and effectively respond to consumer demands by expanding convenient healthcare services (Direct-to-Patient).				
Subtactic 3.4.A: SCTA regional hubs will implement direct-to-patient services and evaluate utilization, quality and cost-effectiveness.				
Identify and report quarterly metrics that assess the impact of direct-to-patient services.	March	Regional Hubs	Complete	
Regional hubs report on initial successes and challenges of direct-to-patient services.	September	Regional Hubs	In Progress	Due in Q3

Driving Strategy 4

Broaden mental health and related telehealth clinical services and programs to increase access to care.

Supporting Rural Hospitals with Mental Health Services (4.1)

In CY18Q2, in collaboration with Palmetto Care Connections, **SC Department of Mental Health (SCDMH)** identified a strategy to determine the next cohort of rural hospitals to include in the ED Telepsychiatry Program. SCDMH is actively recruiting additional clinical providers in order to ensure that the workforce exists to meet the expected demand from expansion into additional rural hospitals. SCDMH is also working closely with MUSC to ensure coordination between SCDMH's emergency department telepsychiatry services and the inpatient telepsychiatry services now being provided by MUSC. (**4.1.A**)

In CY18Q2, SCDMH's **Community Crisis Response and Intervention (CCRI) Program** went live in the coastal regions of South Carolina. Through this program, mental health clinicians are able to support emergency responders responding to individuals in psychiatric crisis, helping to de-escalate the crisis and provide linkage to ongoing treatment and other resources. SCDMH also held meetings with the SCTA technology team to identify a technologically-appropriate software platform on which to establish its clinical service delivery given the challenge of serving rural areas where even cellular service can be inconsistent. SCDMH has preliminarily identified the next geographical region for deployment, with the intent of eventually scaling the program statewide. (**4.1.B**)

2018 SCTA Strategy 4 - Milestones

Strategy 4: Broaden mental health and related telehealth clinical services and programs to increase access to care.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 4.1 Support rural hospitals with the availability of mental health and related clinical services and programs.				
Subtactic 4.1.A: Increase the number of rural hospitals with access to mental health and related clinical services and programs.				
Establish priority list and readiness evaluation of rural hospitals for implementation of clinical services and programs.	March	PCC, SCDMH	Ongoing	SCDMH has developed a process for prioritizing expansion. This implementation process is ongoing as opposed to focused milestones due to ongoing demand.
Secure required carts and associated equipment/infrastructure in order to implement selected clinical services and programs.	June	PCC, SCDMH		
Activate first cohort of rural hospitals from established priority list and readiness evaluation.	September	PCC, SCDMH		
Subtactic 4.1.B: Extend organizational partnerships that support crisis intervention.				
Establish priority list of geographically-strategic areas for establishment of regional crisis intervention services.	March	SCDMH, SCHA	Complete	SCDMH has outlined an initial plan for the program rollout.
Convene a meeting of interested parties from the priority list to discuss the need/inclination for crisis intervention services and supports.	June	SCDMH, SCHA		

Driving Strategy 4

Broaden mental health and related telehealth clinical services and programs to increase access to care.

Supporting Primary Care with Mental Health Services (4.2)

In CY18Q2, SCDMH partnered with a **federally qualified health center** (**FQHC**) to pilot the extension of telepsychiatry services into a primary care setting. SCDMH secured the appropriate workforce and deployed the necessary equipment to begin delivering telepsychiatry services via its Community Telepsychiatry Program. SCDMH is on track to go live with these services in the upcoming quarter, with plans to eventually scale to other sites if successful. (**4.2**)

Recruiting Providers for Telepsychiatry (4.3)

In CY18Q2, SCDMH continued **recruiting psychiatrists** to expand its provider roster to meet the expected demand from expansion into additional clinical locations. To assist with recruitment, SCDMH—in cooperation with the USC School of Medicine—began to explore methods of providing telepsychiatric experiences to medical residents, and they are exploring similar opportunities with health education programs at other colleges and universities. One additional key to SCDMH expanding its roster is the use of physician extenders, and in CY18Q2 SCDMH successfully deployed its **first APRN to provide telepsychiatry services**. (**4.3**)

Exploring Medical Information Sharing (4.4)

In collaboration with MUSC, SCDMH is evaluating the use of a single virtual platform to meet its **medical information sharing** and **health information exchange** needs, thereby consolidating Subtactics 4.4.A and 4.4.B. In CY18Q2, SCDMH engaged its medical, administrative, and IT leadership to conduct both an initial, cursory evaluation of the software platform and a second, in-depth operational compatibility evaluation of the platform. Based on preliminary assessments, the product was determined to have the potential to significantly enhance the efficiency of SCDMH's medical information sharing, especially within the ED Telespsychiatry Program. SCDMH will continue to explore this solution in the quarters to follow. (**4.4.A/B**)

2018 SCTA Strategy 4 - Milestones

Strategy 4: Broaden mental health and related telehealth clinical services and programs to increase access to care

Milestones	Timeline	Champion	Status	Notes
Tactic 4.2: Support primary care and related-care providers with integrated or aligned access to mental health and related clinical services and programs.				
Subtactic 4.2.A: Increase the number of primary care and related-care providers with access to mental health and related clinical services and programs.				
Establish priority list and readiness evaluation of primary care and related-care providers for implementation of clinical services and programs.	March	PCC, SCDMH	Transitioned	Rather than focusing on a cohort of primary care providers this year, SCDMH will pilot services with one FQHC.
Secure required carts and associated equipment/infrastructure in order to implement selected clinical services and programs.	June	PCC, SCDMH		
Activate first cohort of primary care and related-care providers from established priority list and readiness evaluation.	September	PCC, SCDMH		
Tactic 4.3: Establish telepsychiatry as recruitment tool for providers.				
Convene group to discuss provider recruitment.	March	SCDMH	Ongoing	
Establish marketing initiative to use telepsychiatry as recruitment tool for providers.	June	SCDMH		
Extend the use of physician extenders within the provider roster of mental health and related clinical services and programs.	September	SCDMH		
Tactic 4.4: Develop a best practice for medical information sharing across disparate medical service delivery organizations.				
Subtactic 4.4.A: Evaluate the feasibility of coordinated, interfacing, bi-directional medical information sharing.				
Convene a meeting of interested parties to discuss the feasibility of coordinated, interfacing, bi-directional medical information sharing.	March	PCC, SCDMH	Complete	
Report the findings from the meeting and research regarding the feasibility of medical information sharing.	June	PCC, SCDMH	Complete	SCDMH has identified a potential solution to meet its medical information sharing needs and is consolidating 4.4.A & B. SCDMH will explore moving forward with this solution in the quarters to follow.
Convene a second meeting to discuss next steps to work toward more coordinated medical information sharing, if warranted.	September	PCC, SCDMH		
Subtactic 4.4.B: Evaluate the feasibility of a Health Information Exchange program to support the role of a centralized information sharing repository.				
Convene a meeting of interested parties to discuss the feasibility of a Health Information Exchange program to support the role of a centralized information sharing hub.	March	PCC, SCDMH	Complete	
Report the findings from the meeting and other research regarding the feasibility of a Health Information Exchange program to support the role of centralized information sharing.	June	PCC, SCDMH	Complete	SCDMH has identified a potential solution to meet its medical information sharing needs and is consolidating 4.4.A & B. SCDMH will explore moving forward with this solution in the quarters to follow.
Convene a second meeting to discuss the next steps to support a centralized information sharing hub, if warranted.	September	PCC, SCDMH		

Driving Strategy 4

Broaden mental health and related telehealth clinical services and programs to increase access to care.

Supporting other Statewide Telemental Health Initiatives (4.5)

In CY18Q2, **SCDMH** began quarterly conference calls with **MUSC Health's** psychiatry department to ensure alignment and collaboration between SCDMH's emergency department telepsychiatry program and MUSC's newly launched inpatient telepsychiatry program. Given that SCDMH and MUSC's programs are currently coexistent in at least one hospital, SCDMH and MUSC will begin to explore how to best facilitate patient transitions and coordinate care between the two clinical areas. (**4.5.A**)

In collaboration with the SC Department of Education, SCDMH identified approximately 18 new sites to implement its **School Mental Health Program**, which will include a telepsychiatry component. In CY18Q3, SCDMH will begin actively promoting this program and working with specific districts around implementation, especially as it relates to the technological and bandwidth requirements for the telepsychiatry components. (**4.5.B**)

Expanding access to **medication-assisted treatment (MAT) for opioid use disorders** remains a priority for the SCTA. Over the past year, PCC set up telehealth equipment at Behavioral Health Services Association (BHSA) sites across the state. This past quarter, a process for establishing connectivity, clinical workflows, and training was developed and tested at two of these sites—**Tri County Behavioral Health** and **Dorchester Drug and Alcohol Abuse Center**—where patients will begin receiving MAT from MUSC providers via telehealth in the upcoming quarter. Lessons learned from these two sites will be applied to other BHSA sites as additional providers are identified and connected. In the coming quarter, the team plans to gather information on available MAT providers throughout the state and systematically connect them to local BHSA sites, thus increasing access to this life-saving treatment for South Carolinians (**4.5.C**)

2018 SCTA Strategy 4 - Milestones

Strategy 4: Broaden mental health and related telehealth clinical services and programs to increase access to care				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 4.5: Identify, support, and coordinate other statewide telehealth initiatives that address mental health and related clinical services and programs.				
Subtactic 4.5.A: Identify the various statewide telehealth programs that address mental health and related clinical services and programs and determine potential opportunities for alignment.				
Compile a list of statewide services and programs.	March	SCDMH	Complete	
If appropriate, convene a meeting among stakeholders of various initiatives to address opportunities for alignment.	September	SCDMH	In Progress	Due in Q3
Subtactic 4.5.B: Explore the implementation of mental health and related clinical services and programs in extended service areas.				
Evaluate opportunities for implementing mental health and related clinical services and programs via telehealth to extended service areas (e.g. schools, jails, state agencies, colleges, and universities).	June	SCDMH	Complete	
Identify at least one pilot service to implement in one of these extended service settings.	September	SCDMH	Pending	Due in Q3
Subtactic 4.5.C: Assist with the development of the service delivery model for medication-assisted treatment (MAT) throughout the State of South Carolina.				
Receive approval from LLR for controlled substance prescribing to patients in 301s via telehealth.	March	DAODAS, 301s	Complete	
Technical and clinical training process is in place.	June	DAODAS, 301s	Ongoing	Training and clinical workflow development in process for at least 2 sites. This process will be used to inform implementation at future sites.
MAT consults to 301s active.	September	DAODAS, 301s	Pending	Due in Q3

Driving Strategy 5

Conduct statewide education, training and promotion to providers and the public to accelerate and spread adoption of telehealth.

The **Education Workgroup** made progress on its deliverables in CY18Q2. Led by **SC AHEC**, the subgroup focused on healthcare training institutions and identified several promising practices for telehealth curriculum integration, including **MUSC's nurse practitioner program** and **USC's interprofessional telemental health course**. These promising practices will be shared and publicized in the quarters to follow. In addition to this work, **SC AHEC** also promoted telehealth for trainees through other events and venues in CY18Q2:

- SC AHEC hosted three **Interprofessional Team Case Conferences** utilizing telehealth technology.
- In April, SC AHEC hosted its **Institute of Primary Care** retreat which focused on telehealth and included over 50 attendees.
- In June, SC AHEC utilized its videoconferencing infrastructure to partner with the **Alliance for a Healthier SC** in hosting the annual **SC Population Health Summit.** (**5.1**)

Led by **PCC**, the subgroup focused on provider education determined the importance of developing updated, South Carolina-specific **telehealth training modules**. PCC and SC AHEC agreed to lead the development of these modules, identifying tele-presenting and billing/reimbursement as two initial modules to develop. Additionally, the subgroup worked closely with the **SC Primary Health Care Association** (**SCPHCA**) to develop an educational needs assessment that will be administered by SCPHC to FQHC staff across the state. Results of the survey will inform the modules and other educational materials to be developed. In addition to these activities, the SCTA and MUSC Health hosted a half-day **telehealth billing bootcamp** in June. The event included 30 billing and telehealth professionals from health systems across the state. (**5.2**)

2018 SCTA Strategy 5 - Milestones

Strategy 5: Conduct statewide education, training, & promotion to providers and the public to accelerate and spread adoption of telehealth.				
Milestone	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 5.1: Assist participating health provider training institutions in South Carolina in introducing knowledge of telehealth to their learners.				
Workgroups for student/trainee education and provider education created. Based on curriculum integration inventory, key stakeholders identified to elicit telehealth curriculum implementation information.	March	AHEC	Complete	
Case studies of successful telehealth curriculum implementation developed.	June	AHEC	Complete	Case studies identified and will be disseminated in future quarters.
Telehealth competencies for students/trainees developed and endorsed by committee.	September	AHEC	Pending	Due in Q3
Best practices, case studies, and telehealth competencies for students/trainees disseminated to institutions. Technical assistance provided to partners interested in integrating telehealth education at their institutions.	December	AHEC	Pending	Due in Q4

Driving Strategy 5

Conduct statewide education, training and promotion to providers and the public to accelerate and spread adoption of telehealth.

Related to this strategy, this quarter included the **6th Annual Telehealth Summit** hosted by PCC, which drew over 225 participants. Highlights from the conference included a free pre-conference with technology training, poster presentations, top telehealth vendors, networking opportunities, South Carolina telehealth success stories, a leadership panel, and keynote speakers: Julie Hall-Barrow, EdD, Vice President of Virtual Health and Innovation at Children's Health in Texas, and Peter Yellowlees, MBBS, MD, President of the American Telemedicine Association. (**5.2**)

Key physician leadership of SC's **telementoring/Project ECHO programs** were identified this quarter and invited to participate in a meeting in July to discuss individual program highlights and potential areas for synergy. Programs to participate in the July meeting include:

- Hepatitis C Telehealth Initiative (Clinical Champion: Dr. Divya Ahuja, USC)
- Medically Assisted Treatment (MAT) Access Project ECHO (Dr. Kelly Barth, MUSC)
- Sickle Cell Network (Dr. Julie Kanter, MUSC)
- Behavioral Health Care Manager ECHO (Dr. Eve Fields and team, GHS)

Recommendations and any other findings from this meeting will be reported in the quarter to follow. (**5.3**)

2018 SCTA Strategy 5 - Milestones

Strategy 5: Conduct statewide education, training, & promotion to providers and the public to accelerate and spread adoption of telehealth.

Milestone	Timeline	Champion	Status	Notes
Tactic 5.2: Assist practicing health care providers in adopting telehealth through telehealth best-practice education and provisions of guiding resources, paying special attention to the rural/underserved communities in state.				
Establish scholarship program to increase health care providers' utilization of online certification program for clinical tele-presenters and telehealth coordinators, and supplement online certification with local resources.	March	PCC	Transitioned	PCC has moved away from the scholarship program and is instead planning to develop its own training modules with SC AHEC.
Develop library of telehealth training tools for practicing health care providers and their staff and disseminate as identified by provider survey.	June	PCC	In Progress	PCC is working with SC AHEC to develop modules. PCC provides ongoing webinar training opportunities to providers.
Work with local AHECs and telehealth hubs to coordinate at least 2 Telehealth Regional Meetings in calendar year focusing on Upstate, Pee Dee and Low Country regions	September	PCC	Pending	Due in Q3
Review utilization rates for telehealth training tools and re-survey practicing providers to determine effectiveness as well as determine number of practices that have received telehealth certification	December	PCC	Pending	Due in Q4
Tactic 5.3: Extend the use of provider education via telehealth, enabling primary care and other practice settings to co-manage complex medical cases with the assistance of specialists and a multidisciplinary team				
Review the successes and challenges of current HCV, sickle cell, opioid treatment, and emergency management provider education/Project ECHO programs.	June	USC	In Progress	Meeting with SC telementoring/ECHO programs scheduled for July 19, 2018.
Formulate recommendations to streamline/grow these projects.	September	USC	Pending	Due in Q3

Driving Strategy 6

Develop a telehealth organization structure that encourages and facilitates statewide collaboration among providers in the delivery of health care, education and research.

In efforts to enhance engagement with telehealth partners not already represented on the SCTA Advisory Council, the SCTA and PCC agreed to co-sponsor a regular **SC Telehealth Stakeholders Meeting**. In addition to keeping partners abreast on telehealth resources, policies, and programs in the state, this meeting will create a venue for stakeholders to provide feedback to the SCTA and PCC on telehealth strategy and programs. The first meeting has been scheduled for July 31, 2018. (**6.1**)

This past quarter the SCTA finalized the following process for developing unified SCTA statements in the future: (1) a need for a common position or statement is identified by members of the advisory council and/or stakeholder group; (2) a statement is drafted by a small ad hoc SCTA workgroup; (3) this statement is vetted by the regional and specialty hubs as well as any other key stakeholders; and (4) the statement receives approval from the SCTA Advisory Council. The SCTA followed this process to develop its **2018 Payer Coverage Priorities** document (Appendix B), discussed under Strategy 8. (**6.2**)

The enhanced REDCap **reporting templates** piloted in CY18Q1 have successfully streamlined quarterly reporting, and strategy champions and hub managers responded positively to this enhanced reporting mechanism. This reporting tool is easy to adapt, allowing reporting templates to evolve as outcome reporting across service lines and strategies mature. (**6.3**)

2018 SCTA Strategy 6 - Milestones

Strategy 6: Develop a telehealth organization structure that encourages and facilitates statewide collaboration among providers in the delivery of health care, education, and research.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 6.1: Establish enhanced communication channels targeting partners and stakeholders not represented at the SCTA Advisory Council.				
Establish a list of entities who are collaborating as partners with the SCTA currently.	March	SCTA Advisory Council	Complete	
Hold meeting that includes these partners to inform them of SCTA progress and obtain their feedback where appropriate.	June	SCTA Advisory Council	In Progress	First SC Telehealth Stakeholder meeting scheduled for July 31, 2018.
Implement strategy for ongoing communication with these partners and stakeholders.	September	SCTA Advisory Council	In Progress	Due in Q3
Tactic 6.2: Establish unified opinions and priorities on SCTA issues and pursue these priorities legislatively when possible and appropriate.				
Establish a standard process for drafting SCTA opinions and moving these forward administratively and legislatively, using the SCTA's work on authorizing APRNs to practice telehealth as an example.	June	SCTA Advisory Council	Complete	
Identify issues for the SCTA to address, and begin applying process to respective issues.	September	SCTA Advisory Council	Complete	
Tactic 6.3: Establish an enhanced reporting process for adequate representation of SCTA activities.				
Establish a subcommittee to approve reports and to inform the reporting process.	March	SCTA Coordinator, Co-Chairs	Complete	
Develop reporting templates to streamline the quarterly SCTA hub and workgroup reporting.	June	SCTA Coordinator, Co-Chairs	Complete	
Implement enhanced reporting mechanisms.	September	SCTA Coordinator, Co-Chairs	Ongoing	Initial mechanisms implemented. Continued enhancements to be made as outcomes reporting increases.

Driving Strategy 7

Establish the value case for telehealth through robust assessment and rigorous analysis of telehealth outcomes.

Led by Drs. Meera Narasimhan (USC) and Dee Ford (MUSC), this strategy focuses on **developing more robust outcomes** across the various SCTA service lines. In CY18Q2, Drs. Ford and Narasimhan held individual calls with **McLeod Health**, **Palmetto Health**, and **GHS** to assess what telehealth services are currently being offered and how hubs are currently measuring outcomes for these services. In this upcoming quarter, the team will identify at least one service line to undergo a more rigorous value analysis. (**7.1**)

All contracts are in place for the six **SCTA Telehealth Implementation and Evaluation Program** grantees awarded this year. Funding will be distributed in the following quarter, and a consultative support infrastructure is already in place to ensure project success. As previously reported, the following are the 2018 awardees:

- *Asthma Chat: Providing a Link between Parents of Children with Asthma and a Centralized Asthma Expert* (PIs: Annie Lintzenich Andrews, MUSC; Robin Estrada, University of South Carolina)
- *Pediatric Cardiac Telehealth: A Scalable Loan Program to Promote Equal Access to Personal Telehealth Devices* (PIs: Nicole Cain, MUSC; G. Hamilton Baker, MUSC)
- *Reducing Alcohol Misuse Following Interpersonal Violence Using Telehealth* (PIs: Sara Barber, SC Coalition Against Domestic Violence and Sexual Assault; Christine Hahn, MUSC)
- *Development and Testing of a Smoking Cessation E-Visit for Implementation in Primary Care* (PIs: Vanessa Diaz, MUSC; Jennifer, Dahne, MUSC)
- *Using Telehealth to Accelerate Mental Health Recovery after Pediatric Traumatic Injury* (PIs: Rachel Houchins, Palmetto Health; Leigh Ridings, MUSC)
- *Midlands Recovery Center Telehealth: Extending Substance Abuse Counseling* (PIs: Ken Taylor, Bright Side Counseling; Michelle Miller and Josh Gray, Midlands Recover Center) (**7.2**)

2018 SCTA Strategy 7 - Milestones

Strategy 7: Establish the value case for telehealth through robust assessment and rigorous analysis of telehealth outcomes.				
Milestones	**Timeline**	**Champion**	**Status**	**Notes**
Tactic 7.1: Establish the means to produce short- and long-term outcomes that reflect the value of telehealth services delivered and that inform SCTA strategic decisions				
Develop an evaluation rubric for determining outcomes and identify generalizable process measures (e.g. # sites, # providers, type of service, etc.).	March	USC/MUSC	In Progress	Generalizable data are currently being collected via quarterly REDCap reporting, and initial consultations have taken place with regional hubs.
Develop a consultation plan to support SCTA hubs and other sites with project evaluation.	June	USC/MUSC		
Have initial project outcomes for at least one project from each of the SCTA hubs that addresses either access, quality, and/or value.	September	USC/MUSC	Pending	Due in Q3
Tactic 7.2: Support clinicians and researchers in implementing and evaluating telehealth-based pilot projects through the SCTA grant program.				
Promote the SCTA Implementation and Evaluation Grant program. Provide consultation to applicants on research and evaluation as needed.	March	MUSC	Complete	
Select up to five new SCTA grant recipients through grant review process.	June	MUSC	Complete	
Contracts and support in place for 2018 pilot project grantees.	September	MUSC	In Progress	Due in Q3

Driving Strategy 8

Demonstrate to legislators, payers, providers, and the public the impact of telehealth on improving access, quality, and affordability.

Led by SCETV, the **Content Advisory Team** (**CAT**) made significant progress in growing its audiences. Through recent partnerships with the **SC Hospital Association**, the **SC Medical Association** and **SC Healthcare Information and Management Systems Society**, the monthly newsletter will now reach over ten thousand additional contacts. Social media and other content distribution channels also continued to increase their reach. Two of the highest viewed posts were the "Behind the Scene" photos of My Telehealth interviews, with both receiving over 2,300 views. (**8.1**)

In CY18Q2, the SCTA continued its efforts to engage payers on enhanced telehealth reimbursement. SCTA hub providers began using a **program/payer template** to track programs that create ER diversions, improve population health, and provide increased opportunities for screenings and early detection of chronic conditions; the goal of this template is to help individual health systems negotiate shared savings reimbursement arrangements. Additionally, the SCTA drafted and released its **2018 Payer Coverage Priorities** document (Appendix B). The SCTA plans to score payer telehealth policies based on their progress in providing coverage in these key areas. Finally, in conjunction with the CAT, the SCTA began a monthly telehealth awareness video feature, directly targeting the SC payer community. Distribution currently includes 73 payers at 24 different companies or government agencies. (**8.2**)

2018 SCTA Strategy 8 - Milestones

Strategy 8: Demonstrate to legislators, payers, providers, and the public the impact of telehealth on improving access, quality, and affordability

Milestones	Timeline	Champion	Status	Notes
Tactic 8.1: Promote awareness of telehealth, the SCTA, and SCTA resources.				
Develop and build distribution lists for audiences in Mailchimp (public, providers, legislators, and payers).	March	Content Advisory Team	Complete	
Develop specific content, messaging, and channels for each audience.	June	Content Advisory Team	Complete	
Develop a list of events to attend and promote the work of the SCTA. Revamp and increase circulation of public survey assessing telehealth knowledge.	September	Content Advisory Team	Pending	Due in Q3
Engage focus group(s) and utilize surveys to evaluate current promotions and gain insight on future opportunities	December	Content Advisory Team	Pending	Due in Q4
Tactic 8.2: Promote the engagement of health systems insurers to establish telehealth reimbursement mechanisms which lead to enhanced levels of care delivered efficiently and cost effectively.				
Develop shared arrangement template for telehealth programs that have the potential to: produce ER diversions, improve population health (diabetes), and increase screenings and early detection conditions	March	External Affairs Manager	Complete	
Begin meeting with telehealth providers to assess the programs and identify payer populations using the programs.	June	External Affairs Manager	Complete	
Host live telemedicine demonstrations for payers at MUSC's Center for Telehealth.	September	External Affairs Manager	Pending	Due in Q3
With completed template, begin collaborating with hub contracting departments to decide next step for shared arrangement payer engagement	December	External Affairs Manager	Pending	Due in Q4

Appendix A:
Tele-ICU Evaluation

Evaluating Tele-ICU's Potential to Improve Care in South Carolina Community Hospitals

Overview

- Tele-ICU is a two-way AV communication and computer network through which intensivists, critical care nurses, and other critical care team specialists collaborate with providers in remote locations to monitor, consult, and treat patients in these locations.
- Through the tele-ICU system, critical care staff monitor remote patients' vitals, evaluate them via cameras, and guide bedside staff through treatment and intervention processes that remote patients require.
- Extensive research supports the continuous monitoring tele-ICU model's ability to reduce ICU and hospital mortality, complications, and LOS
- Research increasingly supports tele-ICU's ability to improve ICU throughput and to reduce critical care costs, which account for a staggering 30% of total hospital costs.

Source: http://www.healthcareitnews.com/news/tele-icu-comes-age

Overview

Alert System, Bedside Waveforms, & EMR Integration

Remote Operations Center

2-Way Audio-Visual Communication with Operations Center Clinicians

Emergency eLert Button

Partner Hospital ICU

Benefits of Tele-ICU in Rural Community Hospitals

Research increasingly supports the benefits of tele-ICU in rural community hospitals.

Clinical

- ✓ ↓ ICU Mortality
- ✓ ↓ Hospital Mortality
- ✓ ↓ ICU Complications
- ✓ ↓ Medication Errors
- ✓ Improved ICU Protocols, Protocol Use, Patient Safety

Financial

- ✓ ↓ ICU LOS
- ✓ ↓ Hospital LOS
- ✓ ↑ ICU Patient Retention
- ✓ ↑ ICU Throughput
- ✓ ↑ ICU Patient Acuity
- ✓ ↑ Hospital CMI
- ✓ ↑ Bedside Team Capacity

Strategic

- ✓ ↑ Ability to Recruit & Retain ICU Staff
- ✓ ↑ Cross-Site Collaboration & Exchange of Best Practices
- ✓ Improved Reputation Within and Beyond Community

Sources:

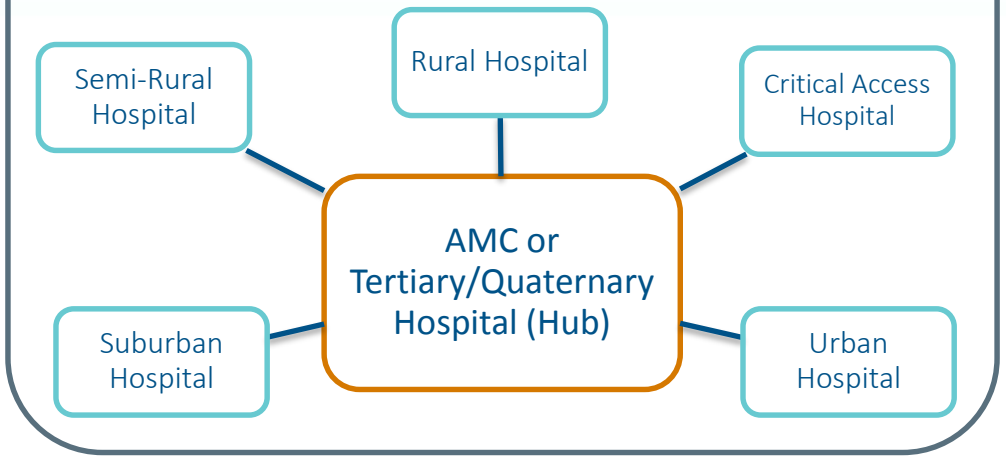
1. Zawade et al. "Impact of an Intensive Care Unit Telemedicine Program on a Rural Health System." Health Economics, 2009.
2. "A Business Case for Tele-Intensive Care Units," The Permanente Journal 18.4, 76-84, Fall 2014, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4206175/#b18-permj18_4p0076 (accessed 3 August 2017).
3. Cardovia Health research and analysis

There is no one-size-fits-all model for tele-ICU programs.

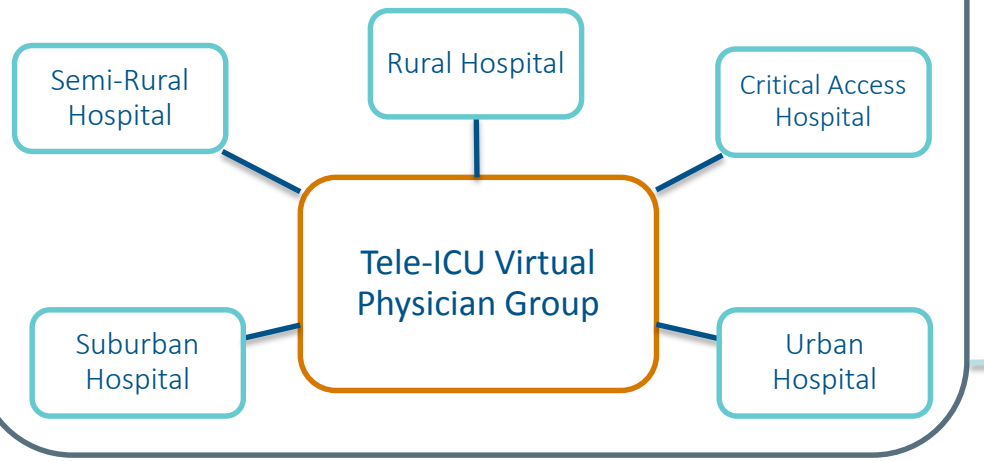
Major Tele-ICU Program Models

Centralized Model

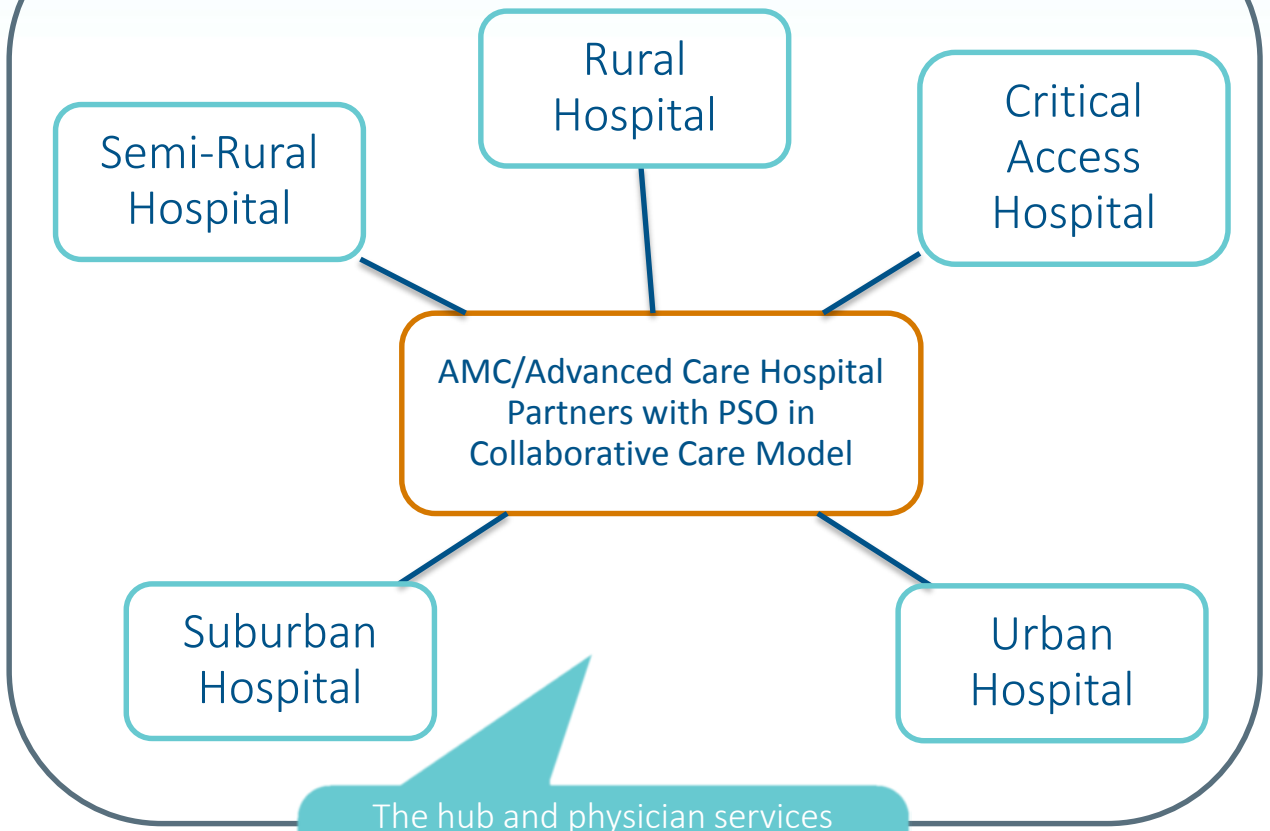
"Hub-and-Spoke"



Physician Service Organization Model



Hybrid Model



The hub and physician services organization (PSO) split coverage based on what is deemed feasible for each. All sites contract with the PSO.

Herb Rogrove, "How to Develop a Tele-ICU Model?" Critical Care Nursing Quarterly, 35.4, 357-63, Oct. – Dec. 2012.

Key Takeaways: Tele-ICU Market and Program Models

- Whether community hospitals in a tele-ICU network are rural, suburban, or urban, maximizing the value they derive from the investment requires selecting a program model that advances their goals
- Organizations whose priority is clinical standardization are typically most successful with the centralized, single-system, physician-led model because it offers the hub site control and incentivizes all sites to achieve standardization-related goals
- Organizations seeking to increase access to quality care within a certain geography without overstretching intensivists are best-served by the hybrid, physician-led consortium model (e.g., SC Consortium), since it leverages a physician service organization to support call coverage and promotes best-practice exchange for the advancement of care throughout the region
- When program goals, available resources, and chosen model are not optimally aligned, success is often elusive
- The physician-led approach is favored over the nurse-led approach primarily because intensivist access is the major selling point for community hospitals considering the investment; though one researched hospital's nurse-led outcomes have equaled those of its previous, physician-led outcomes, its inability to sell the nurse-led model to new sites is driving a shift back to the physician-led model

Source: Cardovia Health research and analysis

MUSC Health
Medical University of South Carolina
Changing What's Possible | MUSChealth.org

Background: Tele-ICU at MUSC

- MUSC is a federally recognized Telehealth Center of Excellence
- 24/7 continuous remote patient monitoring of 6 partner hospital ICU patients by MUSC Health and Advanced ICU Care intensivists and critical care nurses
- The value scorecard is one comprehensive performance management report that can be used for program evaluation

Tele-ICU's Value to SC Consortium Sites

Aim: evaluate the benefit relative to cost derived from tele-ICU

Design: mixed methods observation study

Data Sources:

- *Qualitative:* all participants completed 30-45 minute audio-recorded interviews based on a structured interview guide
- *Quantitative:* quarterly reports prepared by AICU and shared by partner hospitals, APACHE scores, ICU volume, ICU length of stay, and adjusted ICU mortality

Outcomes of Interest: programmatic, clinical, financial, and strategic value of tele-ICU implementation

Value Scorecards

Value scorecards were created to rank sites based on the value they derived from tele-ICU based on the following selection criteria:

- Programmatic Value based on site-specific qualitative factors (physician leadership, medical staff buy-in, progressiveness of critical care committee) affecting the degree to which each site can benefit from tele-ICU.
- Clinical Value based on tele-ICU's ability to drive ICU quality improvement through mortality reduction and ICU safety improvement through increased protocol compliance.
- Financial Value based on tele-ICU's ability to drive revenue growth through increased ICU volume, acuity, and bed utilization and to drive cost savings through reductions in LOS and time on ventilator.
- Strategic Value based on tele-ICU's ability to benefit ICU medical staff, patients, and the hospital by improving physician recruitment, medical staff retention, patient satisfaction, and hospital reputation within and beyond the local community.

Source: Cardovia Health research and analysis

Value Scorecards: Programmatic Value

Source: Cardovia Health research and analysis

	Scorecard Criteria	Weight	Evaluation Scoring		
			0	0.5	1
Programmatic Value	Level of Need for Tele-ICU	10%	Low	Moderate	High
	Initial Technological Compatibility with Tele-ICU	10%	Low	Moderate	High
	Hospital Leadership Engagement Level with Tele-ICU	10%	Low	Moderate	High
	Strength of Tele-ICU Medical Director	10%	Absent or Weak	Average	Strong
	Strength of Tele-ICU Nurse Director/Manager	10%	Absent or Weak	Average	Strong
	Medical Staff Engagement Level with Tele-ICU	10%	Absent or Weak	Average	Strong
	Medical Staff Turnover Rate	10%	High (>25%)	Moderate (10-25%)	Low (<10%)
	Level of Order Set Use for Common ICU Conditions	10%	Low (<25%)	Moderate (25-75%)	High (>75%)
	Level of Collaboration with MUSC and AICU	10%	Low	Moderate	High
	Progressiveness of Hospital's Critical Care Committee	10%	Low	Moderate	High

Value Scorecards: Clinical Value

Source: Cardovia Health research and analysis

Clinical Value

Scorecard Criteria	Weight	Evaluation Scoring		
		0	0.5	1
Decrease in ICU Mortality Rate from Tele-ICU	11.1%	None	Modest (1-10%)	Significant (>10%)
ICU Mortality Rate Relative to Consortium Prediction	11.1%	Above	Equal	Below
Decrease in Hospital Mortality Rate from Tele-ICU	11.1%	None	Modest (1-10%)	Significant (>10%)
Hospital Mortality Rate Relative to Consortium Prediction	11.1%	Above	Equal	Below
Decrease in % of Low-Risk Patients from Tele-ICU	11.1%	None	Modest (1-5%)	Significant (>5%)
Increase in % of Medium-Risk Patients from Tele-ICU	11.1%	None	Modest (1-5%)	Significant (>5%)
Increase in % of High-Risk Patients from Tele-ICU	11.1%	None	Modest (1-5%)	Significant (>5%)
Decrease in % of ICU Readmissions from Tele-ICU	11.1%	None	Modest	Significant
Best Practice Adherence with Tele-ICU	11.1%	<25%	25-75%	>75%

Value Scorecards: Financial Value

Source: Cardovia Health research and analysis

Financial Value

Scorecard Criteria	Weight	Evaluation Scoring		
		0	0.5	1
Growth in ICU Volume from Tele-ICU	12.5%	None	Modest (1-20%)	Significant (>20%)
Reduction in ICU ALOS from Tele-ICU	12.5%	None	Modest (1-5%)	Signficant (>5%)
ICU ALOS Relative to Consortium Prediction	12.5%	Above	Equal	Below
Reduction in Hospital ALOS from Tele-ICU	12.5%	None	Modest (1-5%)	Signficant (>5%)
Hospital ALOS Relative to Consortium Prediction	12.5%	Above	Equal	Below
Increase in Average APACHE Score	12.5%	None	Modest (1-5%)	Significant (>5%)
ICU Bed Day Utilization Rate with Tele-ICU	12.5%	<50%	50-60%	>60%
Increase in # of Vent Days Saved from Tele-ICU	12.5%	None or Modest	Significant (≥10%)	Exponential (≥100%)

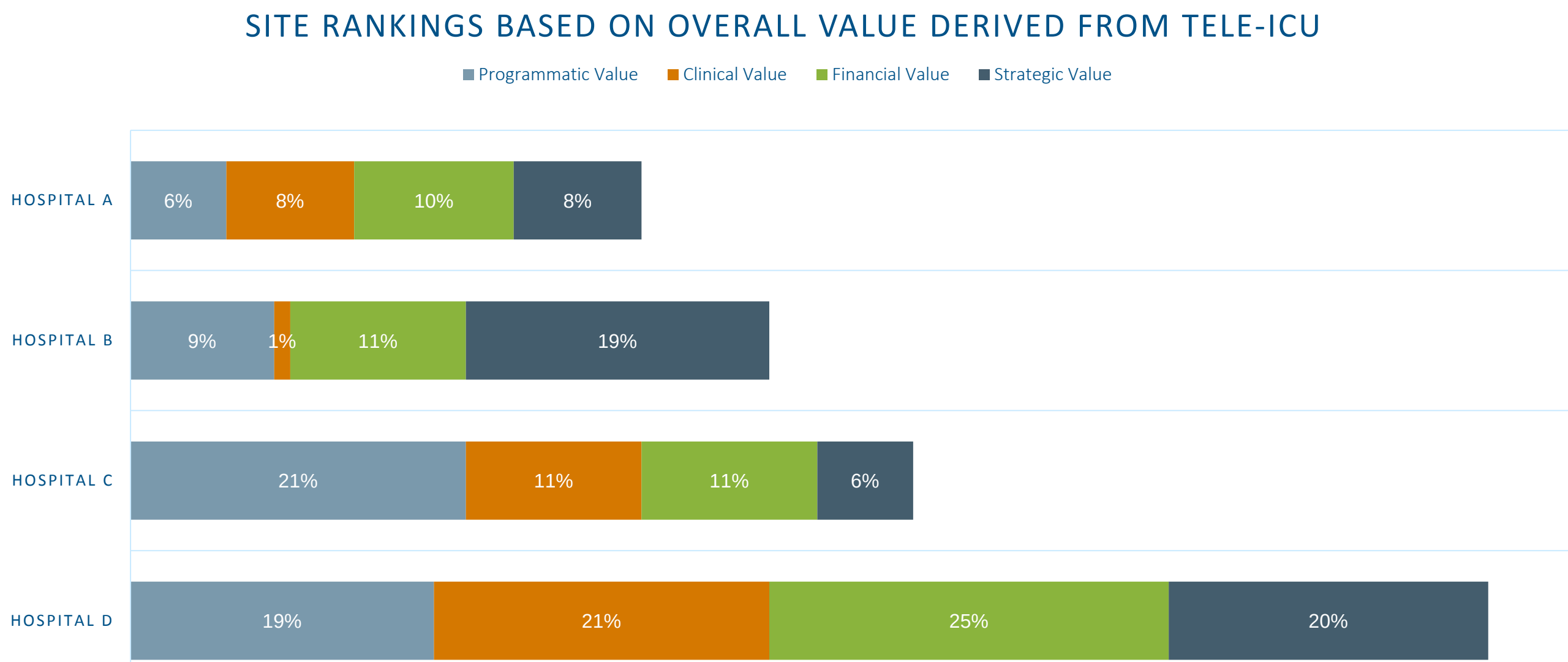
Value Scorecards: Strategic Value

Source: Cardovia Health research and analysis

Strategic Value

Scorecard Criteria	Weight	Evaluation Scoring		
		0	0.5	1
Impact of Tele-ICU on Physician Recruitment	37.5%	Has not increased physician interest in hospital nor allowed hospital to secure new talent	Has increased physician interest in hospital but not allowed hospital to secure new talent	Has allowed hospital to secure new talent
Impact of Tele-ICU on Medical Staff Retention and Job Satisfaction	37.5%	Has not improved medical staff retention nor job satisfaction	Has modestly improved medical staff retention and/or job satisfaction	Has significantly improved medical staff retention and/or job satisfaction
Impact of Tele-ICU on Hospital Reputation	12.5%	No positive impact	Modest positive impact	Significant positive impact
Impact of Tele-ICU on Patient Satisfaction	12.5%	No positive impact	Modest positive impact	Significant positive impact

Value Benchmarking Overview



Sources: Cardovia Health interviews and analysis, AICU Organizational Characteristics Survey and data reports

Key Takeaways: Tele-ICU's Value to SC Consortium Sites

- The value derived by the four community hospitals analyzed varies significantly based on qualitative and quantitative factors

- The top qualitative drivers of value include: strong hospital, physician, and nurse leadership, with physician leadership having the greatest impact of the three

- Top quantitative drivers of value include: ICU volume, ICU patient acuity, ICU bed utilization, and ICU length-of-stay (LOS), with LOS and volume having the greatest impact on financial ROI; given the high upfront cost of tele-ICU, maximizing each of these drivers, without compromising quality or safety, is essential to establishing a financially sustainable program

Source: Cardovia Health research and analysis

Appendix B:
SCTA 2018 Payer Coverage Priorities

2018 Payer Coverage Priorities

SOUTH CAROLINA Telehealth ALLIANCE

Patient Location

Medicare Rurality Restrictions: Understanding there are many barriers to care in addition to a patient's location, the SCTA urges Medicare to remove geographic restrictions based on rurality.[1]

Originating Site Facility Fee: To prevent a financial disincentive for using telehealth within primary care settings, the SCTA urges government and private payers to provide a facility fee payment amount that is equivalent to the Medicare reimbursement of $25.76 in order to cover the cost of the visit for the primary care provider.

Homes as Originating Sites: The SCTA urges all payers to include the patient's home as a covered originating site for live video with providers. Connecting with patients via video, in the home has proven to be useful and beneficial for follow-up care for chronic conditions, such as COPD. In home video visits are also beneficial for urgent care needs.

Provider Type

Government and private payers are urged to expand their lists of covered providers who regularly provide care for patients, to include:[2]

I. Physician assistants
II. Nurse practitioners
III. Nurse mid-wives
IV. Clinical psychologists
V. Master's degree level mental health providers (example: LISW-CP)
VI. Registered dieticians
VII. Physical therapists, occupational therapists, and speech language pathologists

Service

Mobile Health: Government and private payers are urged to begin covering store and forward telehealth modality, specifically online visits (asynchronous), for urgent and on-demand care. There are several commercial companies that connect patients to national providers, but the SCTA supports the use of online visits with South Carolina providers to ensure coordinated care.

Remote Patient Monitoring: Private payers and Medicaid are urged to follow Medicare's coverage of remote patient monitoring to better manage patients with chronic conditions.

e-Consults: The SCTA urges government and private payers to cover services rendered between primary care providers and specialists using e-consult platforms. E-consults have the potential to provide relief for specialty shortages and can improve the current PCP specialist referral process.[3]

1. AHA Telehealth Overview
2. CMS Medicare Learning Network
3. Blue Care Foundation and Center for Connected Health Policy Electric Consultation Roadmap