Telehealth at MUSC and in South Carolina:

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I have no financial conflicts of interest to disclose.
the practice of medicine using electronic communications, information technology, or other means between a licensee in one location and a patient in another location…..

-S. 1035: South Carolina Telemedicine Act (2016)
National Trends in Telehealth

The global market is projected to reach over $19.5 billion
Telehealth for efficient, effective care

To Improve the health of all South Carolinians
Telehealth Service Implementation Model (TSIM™)

Strategy
- Define the scope of the service
- What problem is being solved via telehealth?

Transition
- Training Roundtable
- Mock Calls
- Pre Go Live Brief
- Go Live
- Post Go Live Debrief

Pipeline
- Clinical
- Technology
- Legal & Credentialing
- Outcomes

Operations
- Customer Success
- Operational Technology Management
- Operational Effectiveness

Continual Quality Improvement
Center for Telehealth Strategies

- Contracted Hospital Support Services
- Contracted Business and Institutional Facility Services
- Primary Care Support Services
- Cost Avoidance
- Health Disparity Reduction Services
- MUSC Service Extension

Value

Infrastructure

Education

Sustainability

Promotion

Outcomes

Research

MUSC Health

Changing What’s Possible | MUSChealth.org
MUSC National Telehealth Center of Excellence

- MUSC Center for Telehealth (MUSC Health) McEligott Valenta
- HRSA Telehealth Center of Excellence (University) Ford Cristaldi
- Admin Team: Kuis, Boczko, Fetchen
- Federal and Local Healthcare Spending
- Impact of a Structured & Systematic Telehealth Service Design Framework
- OAN Evaluation and Best Practice Dissemination
- Telehealth as a Model for Implementation of Best Practices
- Creating and Evaluating a Primary Care Telehealth Menu
- Evaluation of Behavioral Health Focused Telehealth Programs

2. Dissemination Materials
3. Technical Assistance
4. Consultation
Telehealth is happening every day, all the time in South Carolina.

348K+

Telehealth patient interactions in 2018

112,000+

Real-time video interactions
School-Based Telehealth
School-Based Telehealth

Number of South Carolina schools with telehealth capability*

*Services vary by county to include acute care and chronic disease management, mental health, group health education, and individual education plan consultation.
School-Based Telehealth

Demonstrated a **22% reduction** in ED visits for children with asthma
Tiered Call Pool Workflow

School nurse requests visit

Priority 1 providers alerted

Priority 2 providers alerted

Priority 3 providers alerted
Efficiency Metrics: Monthly Snap Shot

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Provider Response Time</td>
<td>8 minutes 52 seconds</td>
</tr>
<tr>
<td>Average Duration of Visit</td>
<td>16 minutes 8 seconds</td>
</tr>
<tr>
<td>% of Priority 1 Providers Taking Case</td>
<td>93%</td>
</tr>
<tr>
<td>% of Priority 2 Providers Taking Case</td>
<td>7%</td>
</tr>
<tr>
<td>% of Priority 3 Providers Taking Case</td>
<td>0%</td>
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</table>
Hospital-based Care
Partnering for Regional Coverage

Enables
- Regional "Sub-Hub" partnerships for expedited triage
- Shared staffing across health systems

85% telestroke patients remain in their community for treatment
Managing Across the Continuum of Care

Inpatient teleneurology and EEG services
- Reduced transfer rate (20.2% Vs. 29.4%, P<0.001)
- Cost savings of nearly $5000 per patient

Telehealth Follow-Up Clinic
- Dedicated virtual clinic with regional affiliate health systems

The Impact Of Inpatient Teleneurology Follow Up Consults For Acute Stroke Patients on Transfer Rate and Cost-Reduction
Sami Al Kasab1* Eyad Almallouhi2* Jillian B. Harvey3 Kit Simpson3 Ellen Debenham2 Nancy Turner2 Christine A. Holmstedt2
Best practices and Quality Data Sharing

Sharing of anonymous process metrics
- Ongoing data monitoring
  - tPA delivery times
  - Post tPA process checks
  - Administrative compliance
- Monthly reporting
  - Door-In-Door Out Report
  - Bleed rates
  - Length of stay
  - Disposition and discharge NIHSS
- Quarterly
  - Blinded data sharing across sites
  - Stroke rates and tPA delivery %
  - Transfer rates
  - Thrombectomy rates
  - 90 Call Backs
Focus on Outcomes

Impact of Telestroke Exposure on Outcomes
Adjusted Relative Risk Ratio and 95% CI

- Received tPA
- Received EVT
- In-Hospital Mortality
- Discharge to IRF
- Discharge to SNF
- Discharge to Home
Telehealth in the Medical Home

- In-Clinic Video Consult
- Case-based Mentoring Consultation
- Regional Specialty Clinics
- eConsult
Telehealth in the Medical Home

Annual Number of Outpatient Consultations

1,700+
consultations
OT Nutrition Services

- Allows providers to collaborate and bring specialty care to patients in need.
- Reduces barriers by allowing space easily accessible to both patient and provider.
- Services are available to both pediatric and adult populations.
- Most Registered Dietitians live and work within the 3 major metros

⭐️ = 80% or more of this county’s adults are overweight or obese
⭐️⭐️ = 70% or more of this county’s adults are overweight or obese
E-consults
Patient Engagement Cycle

At-risk Population

Outreach and Screening

Prevention need identified

Text-based "light touch" outreach

Platform integration with EHR and care system

Prescribed virtual management

Triage to care with virtual option

High engagement, prescribed virtual care
(Virtual check in, RPM, Prescribed App)

Soft Touch Entry
Remote Patient Monitoring
Remote Patient Monitoring

Centralized Nurse Monitoring

Primary Care

Primary Care

Primary Care
Remote Patient Monitoring

MUSC Health Diabetic Remote Patient Monitoring

Partner Clinics
- Medical Clinic
- FQHC
- Hospital Clinic

29 different clinics are participating in this program

To date, 760+ patients have enrolled in the program.

Diabetic Remote patient Monitoring Program HbA1C outcomes

Baseline (n=702)
6-Month (n=271)*
12-Month (n=101)*
In Conclusion……..

If I had asked the people what they wanted, they would have said faster horses.

-Henry Ford