

Telehealth Enabled Pandemic Response

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MUSC Center for Telehealth



2005-2009

Maternal Fetal Telemedicine, Telestroke, ICU, Telepsych

2013

State of SC telehealth investment; MUSC Center for Telehealth founded

2014

SCTA founded; headquartered at MUSC

2017

Designated by HRSA as a National Telehealth Center of Excellence

2019

Awarded ATA's 2019 President's Award for Transformation of Health Care Delivery (SCTA)

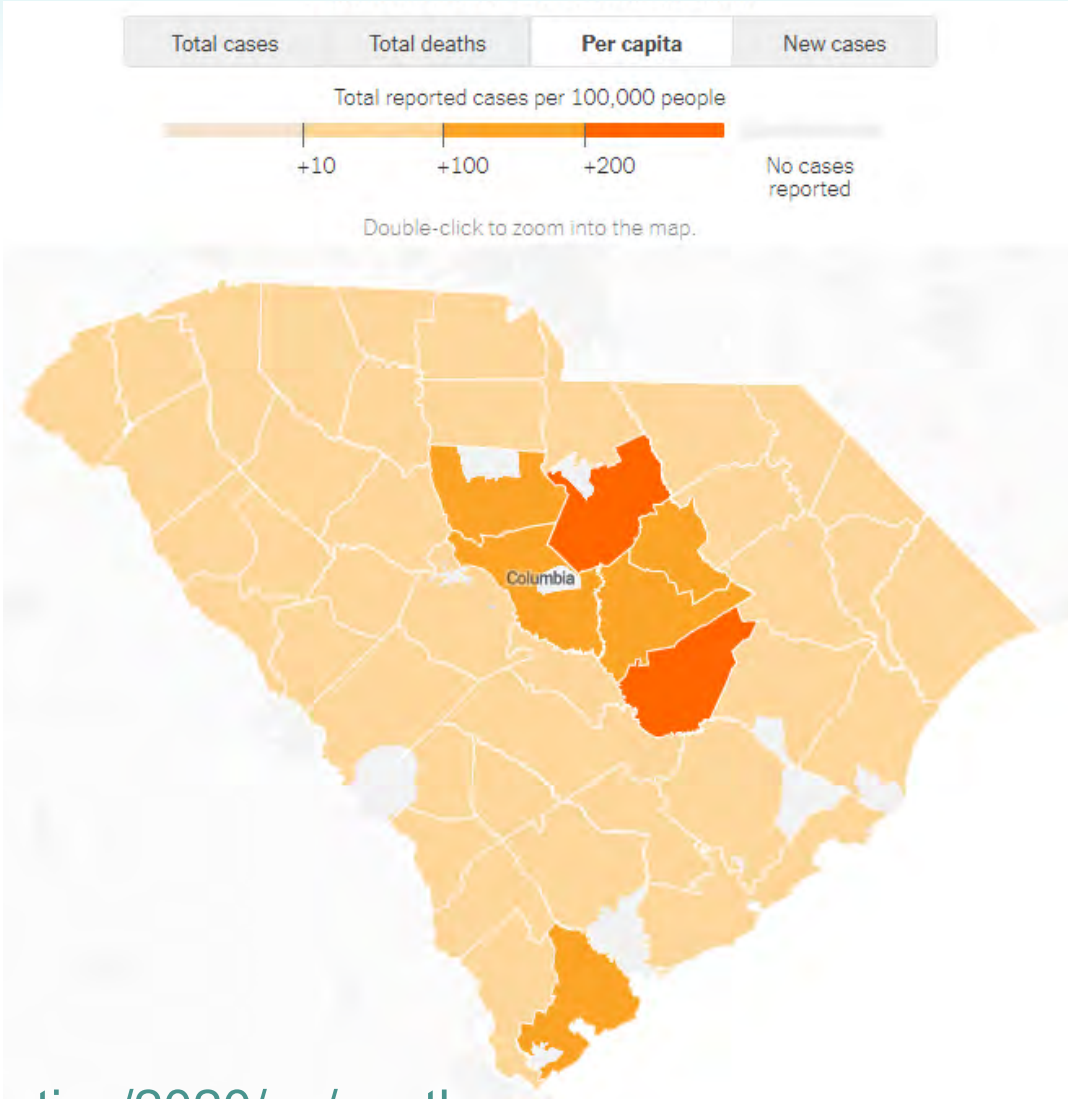


MUSC COVID-19 Telehealth Initiatives

- Ambulatory Video Visits
- Virtual Visit Screening
- COVID Remote Patient Monitoring (RPM)
- Minimize Healthcare Worker (HCW) Exposure
- Family Connection



Confirmed COVID-19 Cases in South Carolina



<https://www.nytimes.com/interactive/2020/us/south-carolina-coronavirus-cases.html>



Ambulatory Clinic Conversion

MUSC Health
Medical University of South Carolina

MyChart

If you are concerned about Coronavirus (COVID-19) or experiencing respiratory or flu like symptoms such as fever and/or cough, MUSC recommends you speak to an online virtual care provider.

Please visit MUSCHealth's Coronavirus Information page for more information: muschealth.org/patients-visitors/coronavirus-information.

- Communicate with your doctor**
Get answers to your medical questions from the comfort of your own home
- Access your test results**
No more waiting for a phone call or letter – view your results and your doctor's comments within days
- Request prescription refills**
Send a refill request for any of your refillable medications
- Manage your appointments**
Schedule your next appointment, or view details of your past and upcoming appointments

MyChart Username

Password

SIGN IN

[Forgot Username?](#) [Forgot Password?](#)

New User?

CREATE YOUR ACCOUNT

PAY AS GUEST



Ambulatory Clinic Conversion

Mission

- Ensure patient needs safely supported
- Maximize ambulatory volumes

Goal

- 80% of pre-pandemic ambulatory visit volume & 80% via tele

Brief Description

- Multi-disciplinary: providers, telehealth, compliance, clinic staff
- Daily monitoring for issues
- Daily monitoring of volumes
- Provide solution to rural, FQHC, and independent providers



MUSC Ambulatory Clinic Conversion Data*

MUSC Health

- Pre-pandemic ~5000 visits/day
- Current state: 53% pre-pandemic levels (virtual + in-person)
- Subgroups: 76% - 91% pre-pandemic

Supporting SC FQHC, rural, Department of Mental Health, and others

- ~150 providers Doxy.me accounts within 48 hours
- 55% in rural zip codes

* Data as of April 15, 2020



Pandemic Patient Engagement Cycle

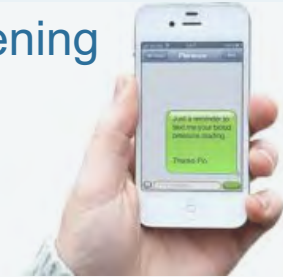


At-risk Population

Virtual Urgent Care Screening

Integration with EHR

Outreach and Screening



Soft Touch Entry



Drive Through Testing

Prescribed Remote Patient Monitoring

High engagement,
prescribed virtual care



Hospital Based:

- Decrease HCW exposure
- Family Visitation

Virtual Urgent Care Screening



Virtual Urgent Care Screening

Mission

- Streamline testing, minimize unnecessary in-person visits

Goal

- Entry point for majority of outpatient COVID-19 testing

Description

- Streamlined VUC tool
- Continuous quality review
- Pathways for vulnerable populations (e.g. homeless)



Virtual Urgent Care and COVID Testing Data*

MUSC Virtual Visit Volumes (Since March 6, 2020)

- 39,053 for possible COVID-19 (~14% from rural zip codes**)
- 12,870 referred for COVID-19 testing (~12% rural)

MUSC COVID testing

- 10,374 COVID tests at MUSC
- 5% positive (n=530)
- Order to result time ~1-2 days

* Data as of April 14, 2020

** Rural zip codes as defined by FORHP (<https://www.hrsa.gov/rural-health/about-us/definition/datafiles.html>)



COVID Remote Patient Monitoring (RPM)

Search Summary

Find Patients in Disease Registries

Where

Disease Registry:

MRN	Patient	Age	Room/Bed	HM Enrolled	Last COVID-19 Result	COVID-19 Last Ord.	COVID-19 Last Ord.	COVID-19 Infectior	COVID-19 Exposure
005530001	Zztestlablis, Four	30 y.o.		✓	Positive*	03/10/2020		Active	
005530069	Zztestlablis, Two	3 y.o.		✓	Inconclusive*	03/19/2020		Completed	Yes High Risk
005530649	Test, Pecan	69 y.o.		✓	1054	03/20/2020		Completed	Yes High Risk
005533728	Zzztest, Bcmathree	4 y.o.			Positive	03/20/2020		Completed	
005537239	Leapfrog, Test Fifteenth	61 y.o.	U10W 1066-A		Not Detected	03/24/2020		Active	Yes
005537951	Zzwillow, Mpart	50 y.o.	A03W 3007-A	✓	Detected	03/21/2020		Completed	
005538012	Test, Chester Lab	38 y.o.	128 CM1MS-1	✓	Positive*	03/23/2020		Completed	Yes
005538013	Test, Lancaster Lab	44 y.o.	623 LM6-1	✓	Positive*	03/23/2020		Completed	Yes High Risk

← Problem List Current Meds Vitals Demographics

COVID Remote Patient Monitoring (RPM)

Mission

- Monitor COVID-19 outpatients (clinical oversight, education, and emotional support)

Goal

- Offer all COVID-19 outpatients access to RPM

Brief

Description

- Validated patient reported outcome (PRO) tool
- Subset with pulse oximetry
- Nurse phone call for worsening PROs
- Escalate to video visit (nurse and physician)
- Safe referral to ED



COVID RPM Data

Program go-live March 30, 2020*

- 483 total COVID+ patients in registry
- 111 patients enrolled (8.4% high risk)
- 445 total nurse to patient encounters

Clinical Encounters**

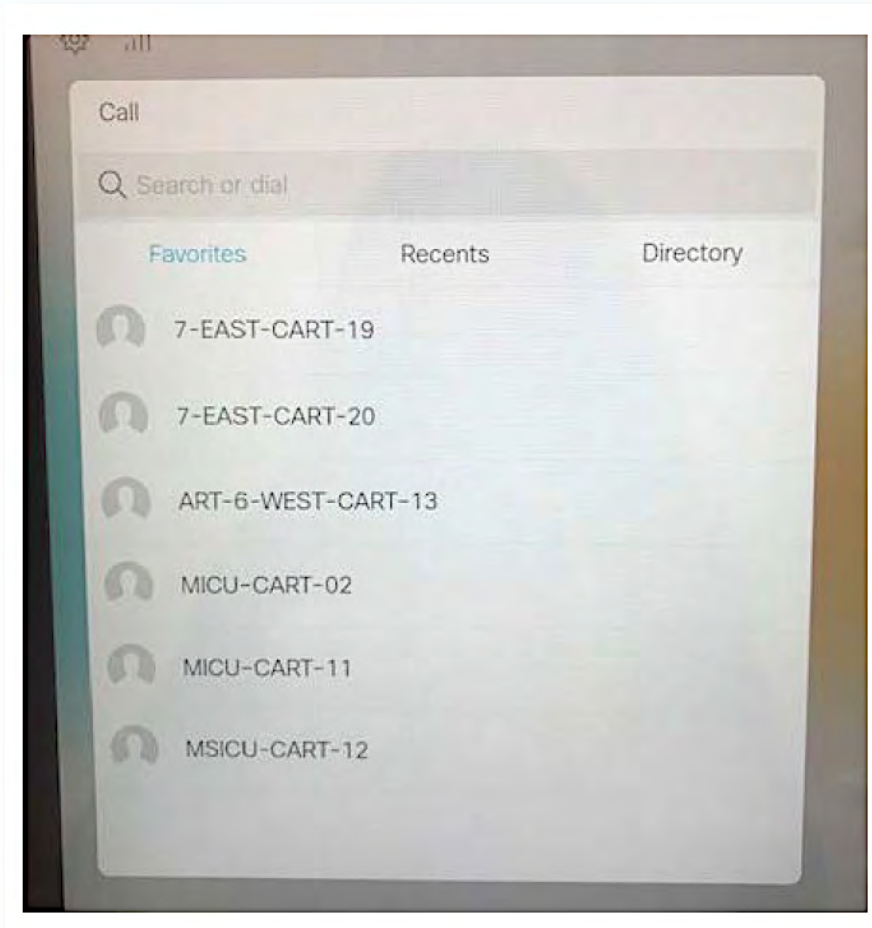
- 14 patients referred to physician data review
- 9 referred to physician video visit
- 3 physician phone calls
- 1 patient referred to ED and admitted

* Data as of April 13, 2020

** Data as of April 15, 2020



Minimize HCW Exposure



Minimize HCW Exposure

Mission

- Limit unnecessary HCW exposure to COVID-19
- Reduce PPE use

Goal

- 100% COVID-19 inpatients & PUI's with video enabled rooms

Brief Description

- Conscripted tele-sitter technologies (high quality and reliability)
- Carts in patient rooms, monitor at nursing stations, telehealth pod



Minimize HCW Exposure Data

Week	# carts deployed / day	# calls / week
March 16, 2020	2	545
March 23, 2020	6	980
March 30, 2020	11	1266
April 6, 2020	15	1212



Patient – Family Connection



Patient – Family Connection

Mission

- Support family-centered care through virtual family visitation

Goal

- 100% of inpatient units with tools for family & spiritual support video visits

Brief

Description

- Identified available tablet technologies
- Utilize secure video client or patient's preferred platform



Questions?

