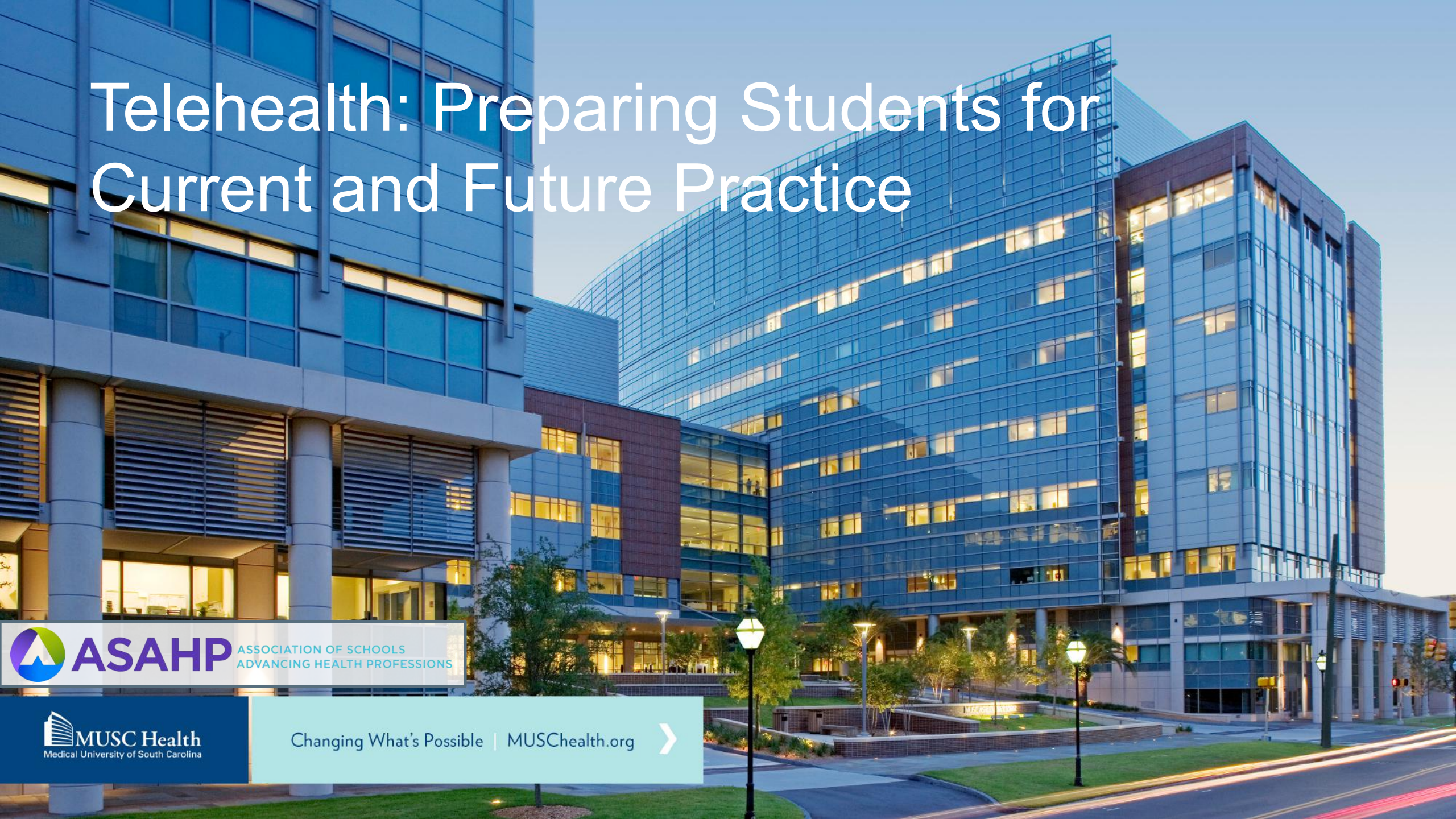
Telehealth: Preparing Students for Current and Future Practice



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- Associate Professor in the Academic Affairs Faculty
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- No financial or conflicts of interests to disclose

SOUTH CAROLINA Telehealth ALLIANCE

MUSC Health
Medical University of South Carolina

MUSC Center for Telehealth

"Telehealth for efficient, effective care"

850-Bed Comprehensive Academic Medical Center

- 12+ years of telehealth experience
- > 80 unique telehealth services
  - Telestroke (30 hospital network; ~5,500 annual consults; 14 comprehensive stroke centers)
  - School-based telehealth (50+ schools)
  - Tele-ICU (partnership with Advanced ICU Care; 11 SC hospitals)
- 350+ connected sites
- Coordinating entity of the SC Telehealth Alliance
- HRSA-designated National Telehealth Center of Excellence

SC Telehealth Alliance (SCTA)

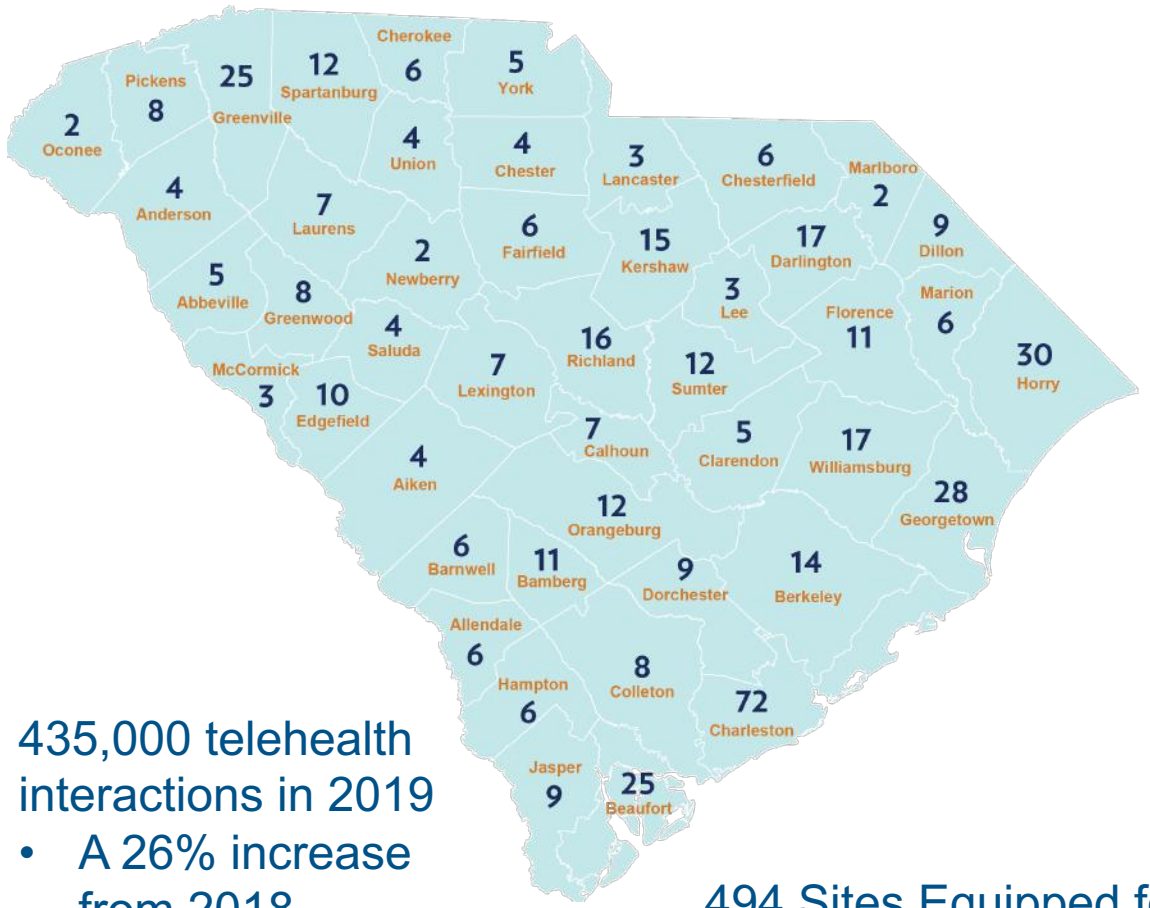
SOUTH CAROLINA Telehealth ALLIANCE

MUSC Health Medical University of South Carolina

- Funded by the South Carolina Legislature in 2013
- Statewide collaboration of many organizations to expand telehealth services
- Administered out of the MUSC Center for Telehealth
- Annual collaborative strategy
  - 450+ connected SC sites
  - 100+ services statewide
  - Legislative reporting
- Creating an open-access telehealth network

- SCTA Mission: Improve the health of all South Carolinians through Telehealth

SC Telehealth Sites in SC



435,000 telehealth interactions in 2019

- A 26% increase from 2018

494 Sites Equipped for Telehealth Services

Scope of Telehealth Practice in South Carolina

112,000+

Real-time video interactions

13,000+

Asynchronous telehealth interactions

Asynchronous interactions can include physician-patient online interactions (e.g., recorded video messages, virtual care visits, SMS) for rapid care of common conditions.

127,000+

Remote patient monitoring interactions

Continuous tracking of a patient's clinical conditions, either at another clinical setting or from the patient's home.

81,000+

Tele-ICU monitoring interactions

Within the tele-ICU, program audio-video evaluations, direct patient interventions, and clinician communication enable a multi-disciplinary team of experts to assist in the care of South Carolina's sickest patients.

2,000

Remote specialty interpretations

Secure transfer of patient information to specialty clinician for interpretation (e.g., EEG or diabetic retinopathy).

Telehealth Categories & Examples

mHealth includes:

- Home monitoring and wearable devices
- Health apps

Synchronous telemedicine includes:

- Real time video or audio
- Often with devices that assist with examinations

Asynchronous telemedicine includes:

- Health encounters performed through messaging
- Transmitted images and videos (radiology, pathology, etc.)

GETTING STARTED FOR CLIENTS

How to check in for your video visit

1 Use a computer or device with camera/microphone

PC and Mac
Chrome | Firefox | Safari

Android
Chrome

iOS
Safari

2 Enter your clinician's musc.doxy.me web address into the browser

3 Allow your browser to use your webcam and microphone

4 Type in your name and click check in

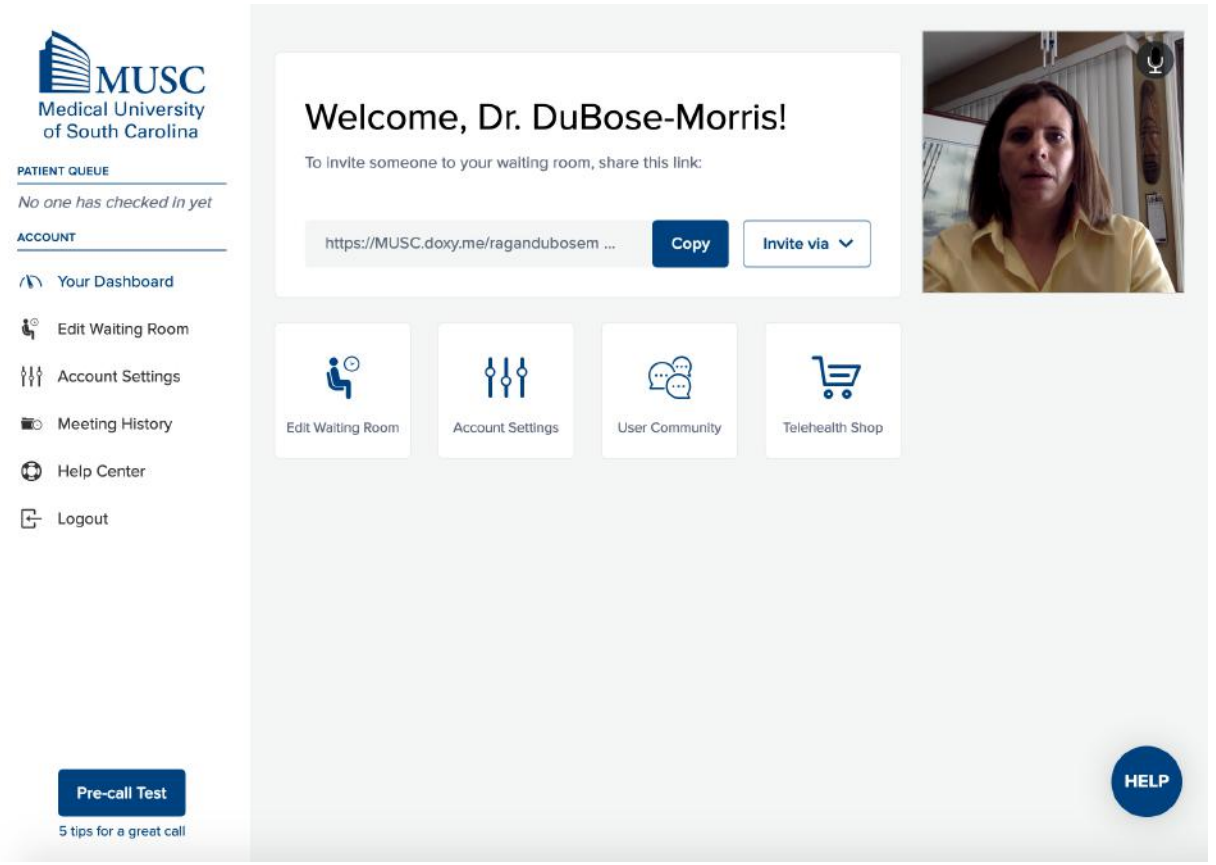
- Secure
- No software to download
- HIPAA compliant
- No registration needed

5 Your care provider will start your visit

Call Tips

- Make sure you have a good internet connection
- Restart your device before the visit
- Test your camera and mic from the waiting room
- Need help? Send us a message https://doxy.me

Powered by doxy.me



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COVID-19 Response

The Impact of the COVID-19 Pandemic on Outpatient Visits: A Rebound Emerges

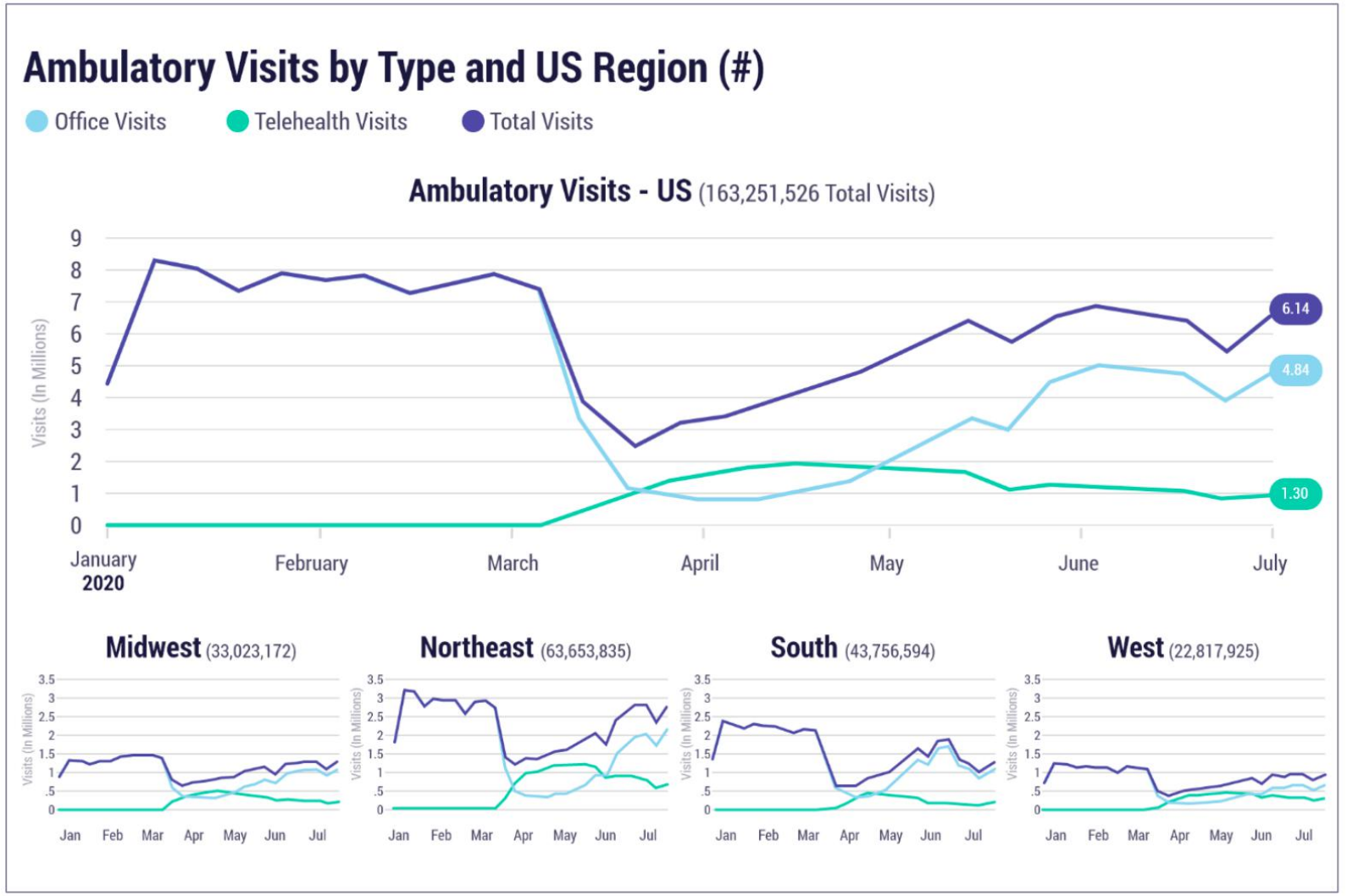


Figure 1. Number of ambulatory visits broken down by visit type and United States region. Regions were grouped according to the Census Regions and Divisions of the United States guidelines.[3]

The Impact of the COVID-19 Pandemic on Outpatient Visits: Regional Differences

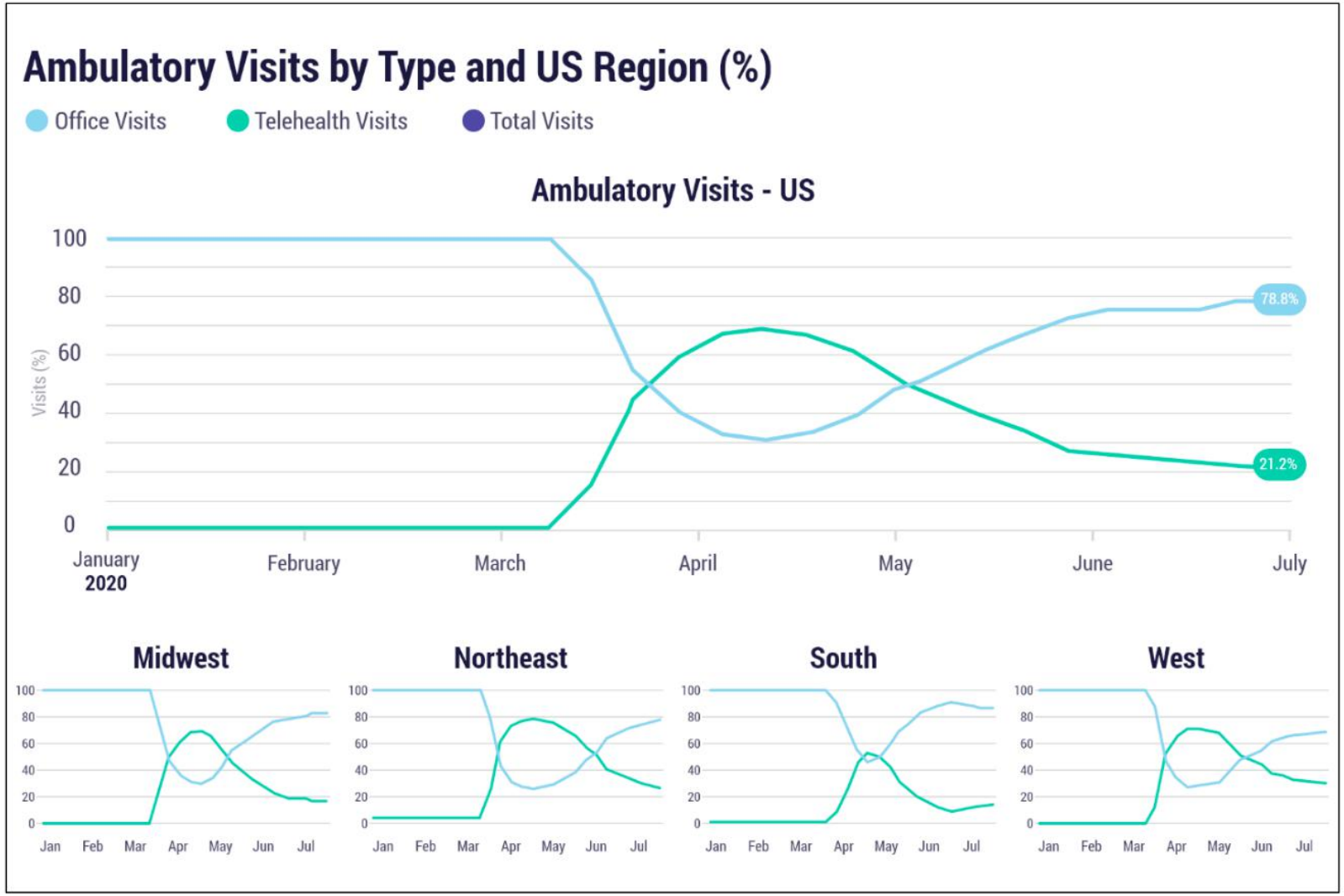


Figure 2. Percentage of office visits and telehealth visits out of total ambulatory visits, grouped by United States region. Regions were grouped according to the Census Regions and Divisions of the United States guidelines.[3]

COVID-19 Operations

Virtual Visit Screening

COVID Screening and Virtual Urgent Care
~1,500 in March 2019; ~30,000 in March 2020; ~29,000 in July 2020

MUSC Ambulatory Clinic Conversion

The team converted ambulatory operations to majority telehealth in April/May seeking to maintain approximately 5000 visits per day. Currently we average 100% across clinical enterprise with 33% being telehealth.

Inpatient Healthcare Worker Exposure Reduction

The savings in equipment and staffing costs are about $40,000 each. Conserving PPE is an even larger impact. Using existing Continuous Virtual Monitoring Carts. Totaling 1000+ patient encounters.

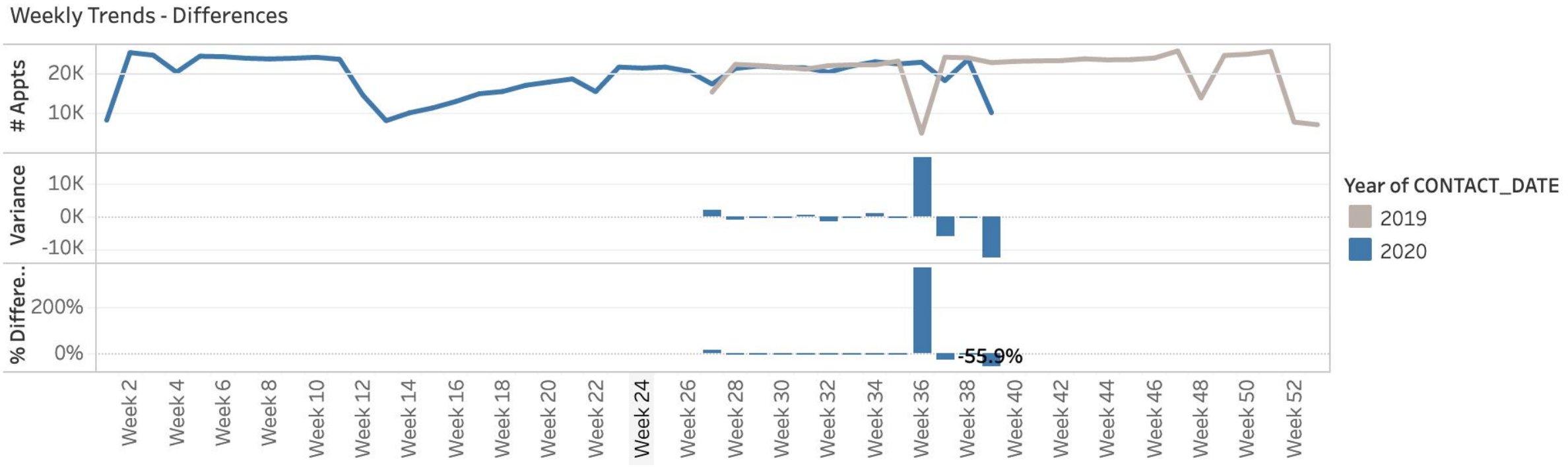
Remote Patient Monitoring

There have been over 12,000 nurse-to-patient encounters for 870 patients at home. Runs on MyChart and standalone app in Apple/Play store.

Immunity Testing, Contact Tracing & Saliva Testing

In April, MUSC started testing with MUSC Healthcare Providers for Immunity Testing. Program has evolved to include plasma donation. Launched ambulatory Saliva Testing in September for more rapid assessment.

Year Over Date Comparisons – Ambulatory Services



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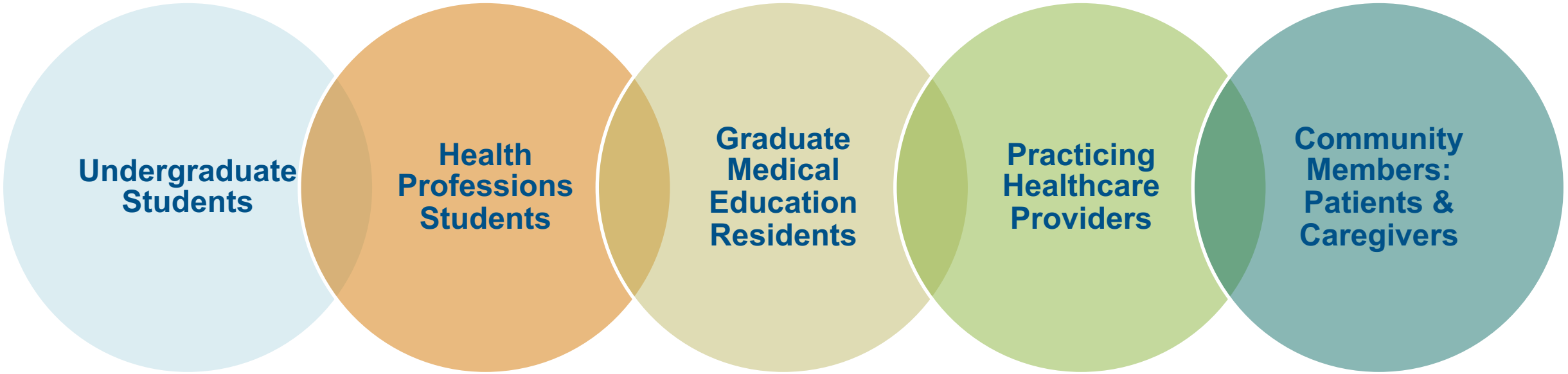
Education Impact

Why is Telehealth Education Important?

- Telehealth education is part of an ecosystem of clinical, research and administrative services
- The demonstration of education about technology through technology serves as a gateway to de-mystify the process
- Telehealth education seen as a low-stakes investment
- Telehealth is an evolving area of science and application
- Baseline and continuing education are required for future and current providers
- This is HOW we provide continuity of training during COVID and in other public health emergencies

Our Ecosystem of Educational Innovation



Telehealth Education Modalities

In-Person	Synchronous	Asynchronous
• Roundtables • Hands-On Demos • Mock Calls • Facility Tours	• Videoconferences • Case Presentations • Simulations	• Online Modules • Recorded Programs • Mobile App Content

Providers → Learners → Patients

Telehealth Curriculum Integration

WHAT: Interprofessional Telehealth Course – Six Colleges

- Medicine
- Pharmacy
- Nursing
- Health Professions
- Dental
- Graduate Studies

WHY: Demonstrated Need to Train Workforce of Tomorrow

- History & Changing Models of Care
- Access & Pop Health
- Tech: App & Infrastructure
- Legislation & Regulation
- Team-Based Care & Community Partnerships

HOW: Online & Telehealth Learning Commons

- Semester - 3 Credit Hours
- Champion Interviews
- Case Presentations
- Virtual Field Trips
- Award Badges

NEXT STEPS: Resident Education & Curriculum Integration

- Internal & Family Medicine
- Content Delivered PG1-3
- Shadowing & Experiential Ed
- Care Coordination Home Monitoring

Types of Educational Offerings for Trainees

Interprofessional education for health professions trainees

- Launched in 2014 – Transitioned to a year-round, online course
- Includes students from all six of MUSC colleges
- Includes Experiential Component and Team Project
- Expanded to Health Systems Module in Fall 2018

Curriculum Integration for Programs/Colleges

- Faculty leadership on integration through a variety of modalities
- Focuses on appropriate level of education for the learner

Integrated Curriculum Across & Within Colleges

COLLEGE OF NURSING

COLLEGE OF MEDICINE

COLLEGE OF PHARMACY

COLLEGE OF DENTAL MEDICINE

COLLEGE OF GRADUATE STUDIES

COLLEGE OF HEALTH PROFESSIONS

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COVID-19 Affect on Learners

U.S. Education Impact

U.S. Medical School Applications Soar in Covid-19 Era

"Through the end of August, the number of **applicants rose nearly 17%** from a year earlier, marking an interest not seen in more than a decade, according to the Association of American Medical Colleges, which administers the main medical-school entry exam. Compared with past years, this year's numbers are unprecedented, said Patrick Fritz, a senior director with AAMC." **- Wall Street Journal, 9/21/20**


25 Medscape Tuesday, September 22, 2020

NEWS & PERSPECTIVE DRUGS & DISEASES CME & EDUCATION ACADEMY

News > Medscape Medical News > Features

In Memoriam: Healthcare Workers Who Have Died of COVID-19

As of July 1, the list included more than 1800 names from 64 countries. The youngest was 20, the eldest 99.

Goals and Tactics from the Spring & Summer

Spring 2020 -

- Main goal: help students graduate by providing the requisite number of contact hours and or working with accrediting bodies to alter requirements
- Main tactic: use online education and telehealth modalities to facilitate didactic and experiential learning
- Next steps: Plan, revise and adjust

Summer 2020 -

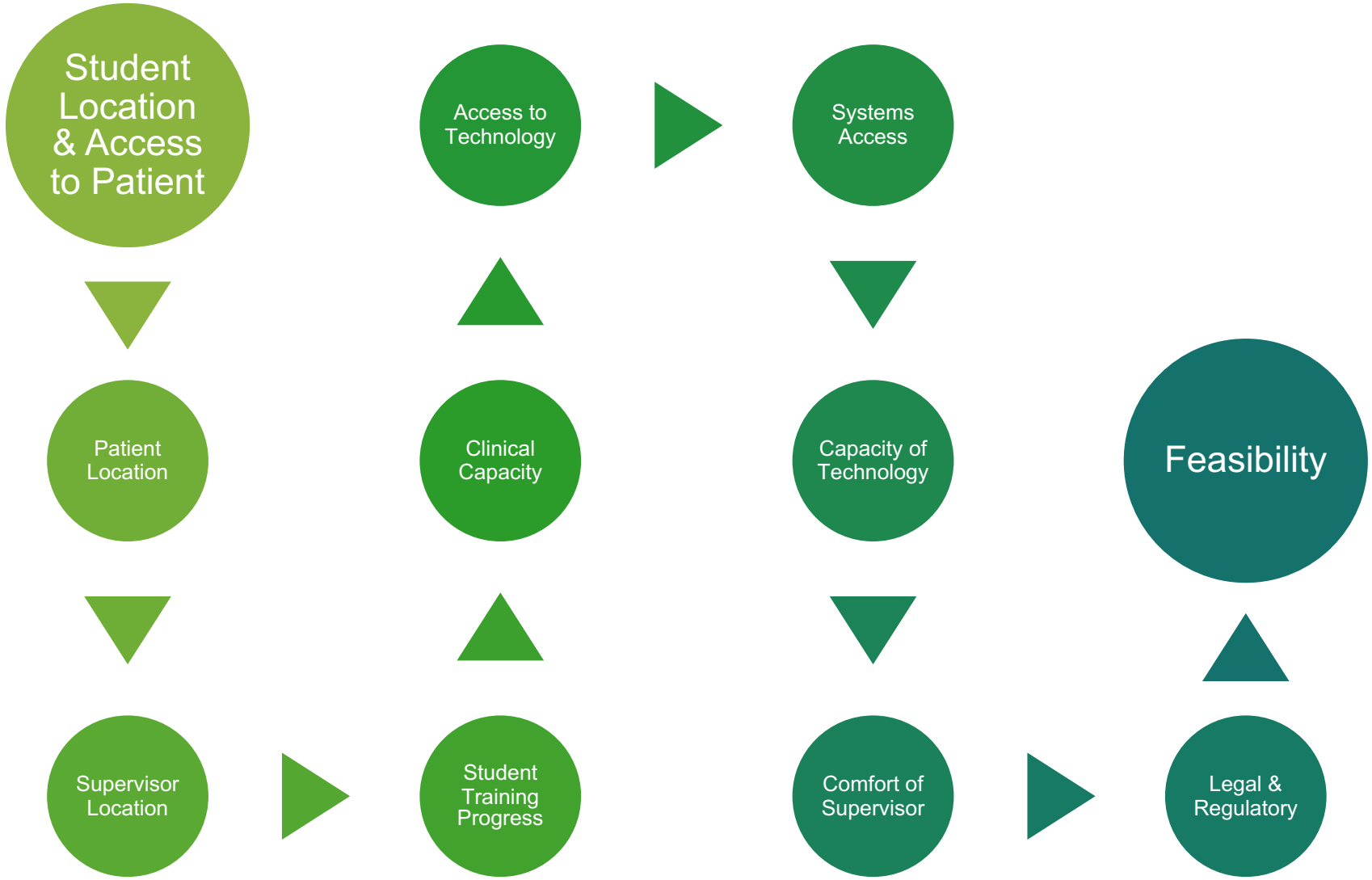
- Main goal: launch a new academic year and monitor the progress of COVID-19 mitigation efforts on campus and in the community
- Main tactic: use blend of online modalities to facilitate didactic and experiential learning prioritizing in person experiences for required labs and clinical procedures
- Next steps: Plan, revise, communicate and adjust

Current and Future State Academic Health Center

2020/2021 Academic Year Considerations

- Make decisions early about in-person requirements
- Integrate students into workflows more formally and appropriately - documentation
- Account for the need to recruit new students and residents
- Facilitate visiting students and other rotations utilizing new practice settings and technologies
- Set expectations for the entirety of the academic year including graduation requirements
- Empower individual clinics and providers to incorporate students to the highest level of learning experience possible
- Partner across the Academic Health Center to standardize administrative processes related to students

Ongoing Considerations



Essential Education

Supervising Providers

- Train on telehealth technologies, workflows and regulations
- Share updated teaching regulations
- Evaluate effectiveness of technologies and processes
- Address workforce and work responsibility issues
- Make changes to EHR and other systems for supervision requirements

Trainees

- Train on telehealth technologies, workflows and regulations
- Make changes to EHR and other systems for access and routing requirements
- Continue to elevate and provide additional opportunities for in-person education

Trainee Opportunities and Challenges

- Faster/slower integration into clinical settings
- More and/or different types of administrative duties including scheduling and technical troubleshooting
- Considerations regarding the use of PPE and the safety of the trainee population
- New types of community engagement opportunities such as testing tents
- Adjustment of some clinical rotations from in-person to virtual (expansion of patient populations)
- Empowerment of students to convert student-led clinics in the community
- Overall faster education related to how health systems work, the integration of technology to support novel problems and settings in which care can be delivered

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Approaches to Achieving Standard of Care and Best Practices

Achieving the Goals of Encounter

When practicing telehealth, it is often helpful to focus on the goals of an encounter, as opposed to replicating the in-person process.

- Many goals are met through history taking and expectation setting
- Observations should have specific intentions to enhance decision making
  - Example: History suggests a sinusitis, observing no periorbital erythema and comfortable eye movement *reduces* the immediate need for further evaluation
- Patient-assisted examinations can be helpful, *though the interpretation is that of the licensed provider*
  - Example: A provider asks the patient to press on his or her skin, of which tenderness may be interpreted reasonably though not the underlying anatomy

Best Practices for Telehealth Including Learners

When practicing telehealth, it is often helpful to be hyper-focused on interpersonal communication.

- All participants in a telehealth visit should be clearly introduced and the roles identified. This is especially the case when dealing with patients who are in a home setting and may have additional participants off camera.
- Equally important is the establishment of how the visit is going to occur and who the patient is going to be seen by.
- If patients are “moved” between virtual clinical rooms, the patient should know upfront who they are working with and when the visit will conclude.
- To the extent possible, learners should be taught how to conduct video visits with appropriate real time coaching if it does not detract from the visit. Save more complicated explanations for an after-visit huddle.

Telehealth Basics Related to Learners

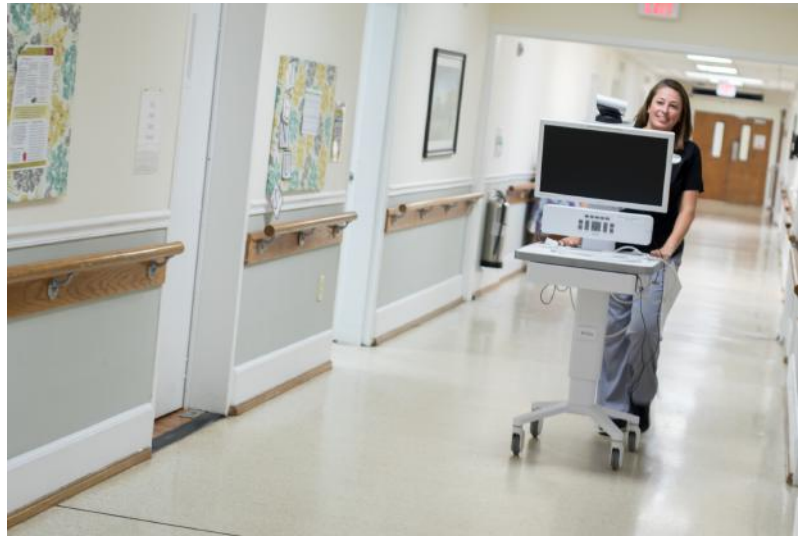
(Some of these will shift upon the conclusion of the public health emergency or overriding legislation/regulation)

- Supervision rules are still in effect but might be altered to allow for asynchronous visits between supervising providers and trainees
- Consenting processes can be done verbally but all trainees should understand the long-term implications for obtaining a written consent and help to be part of the process even if it is post-consult
- Students can serve as telepresenters but restrictions remain related to physical exam
- At all times, the physical and virtual safety of the learners is of equal importance to that of the patients and providers
- Workflows are the key to clinical success and should be altered to include additional communications as necessary for warm handoffs and care coordination

Opportunities for Growth

Challenges remain:

- Ongoing COVID-19 capacity needs and impact
- Changes in regulatory and payment structures still in development
- Student expectations and legitimate feedback



Opportunities to consider:

- Ongoing growth of telehealth post PHE
- Use of additional technologies to expand learner sites
- Competency development for training programs

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Additional Training & Policy Resources

HRSA National Telehealth Center of Excellence

One of two U.S. National Telehealth Centers of Excellence

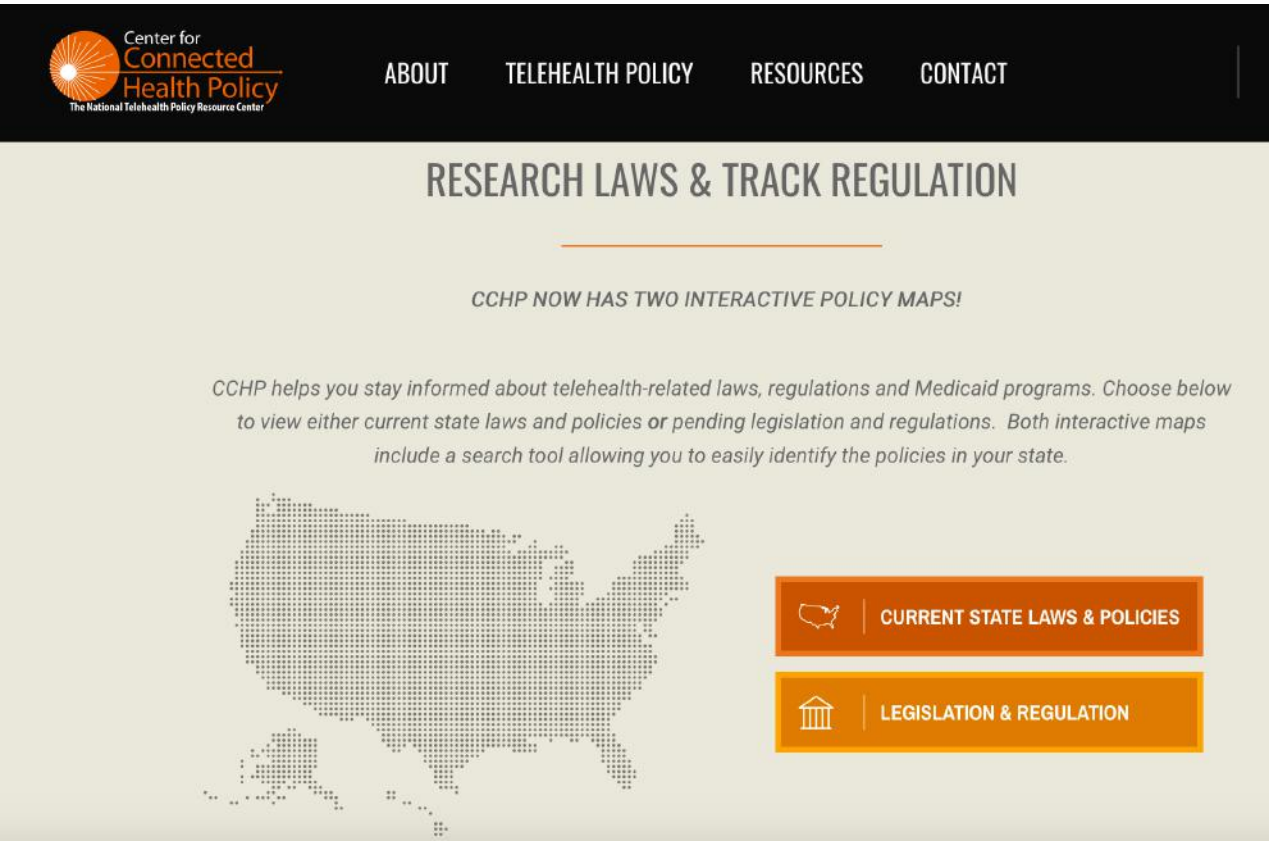
- Medical University of South Carolina
- University of Mississippi

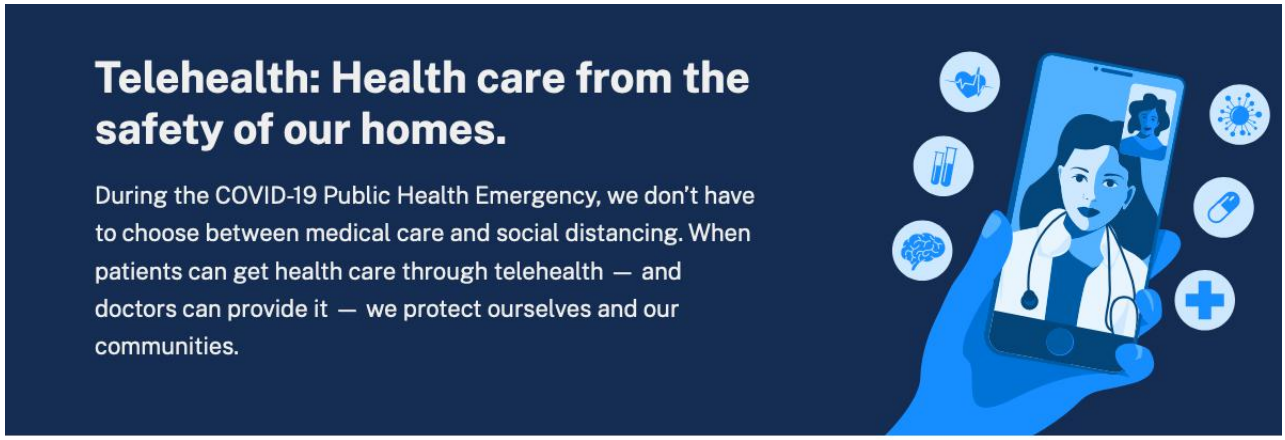
Funded in 2017 with Renewed Mission

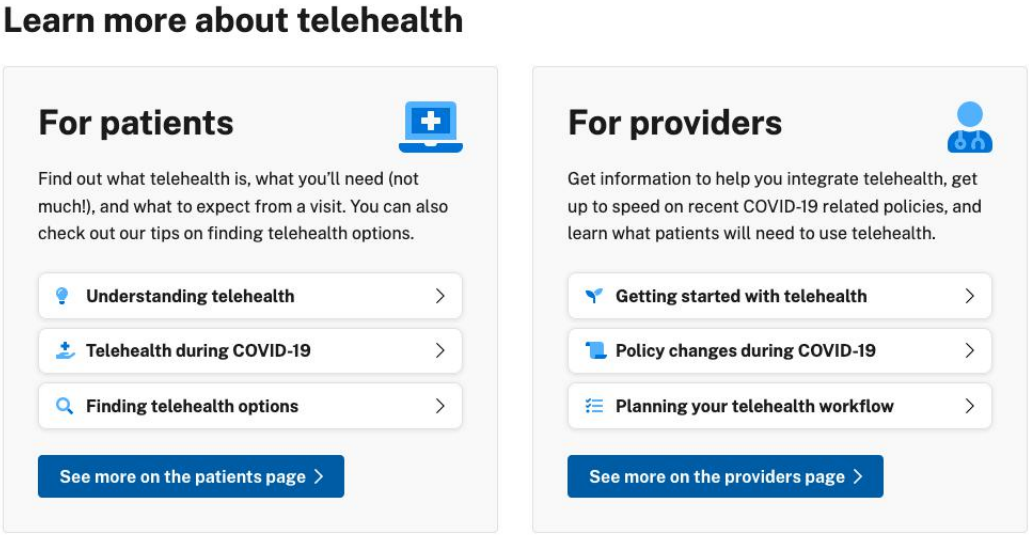
- Research & Outcomes Dissemination

Part of HRSA System of Telehealth Resource Centers

- Technical assistance in the form of policy, infrastructure and education







Additional Learning Opportunities

Thank You!

MUSC Center for Telehealth

- http://www.muschealth.org/telehealth
- @MUSCTelehealth
- https://musc.libguides.com/telehealth

South Carolina Telehealth Alliance

- http://www.sctelehealth.org
- @my_telehealth

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