

***Webinar Series Special***

# **Hospital Best Practices in Standing Up Telehealth During COVID-19**

**Wednesday, June 17, 1pm-2pm EST**

**Presenter:**



**Shawn Valenta, RRT, MHA**  
**Administrator of Telehealth**  
**Medical University of South Carolina**

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will be available after the webinar.*





# COVID-19 Global Pandemic: An Academic Medical Center's Telehealth Response Plan





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Shawn Valenta RRT, MHA  
Administrator of Telehealth  
MUSC Center for Telehealth  
[valentas@musc.edu](mailto:valentas@musc.edu)



## Acknowledgement

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# MUSC Center for Telehealth

SOUTH CAROLINA  
**Telehealth**  
ALLIANCE

 **MUSC Health**  
Medical University of South Carolina



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

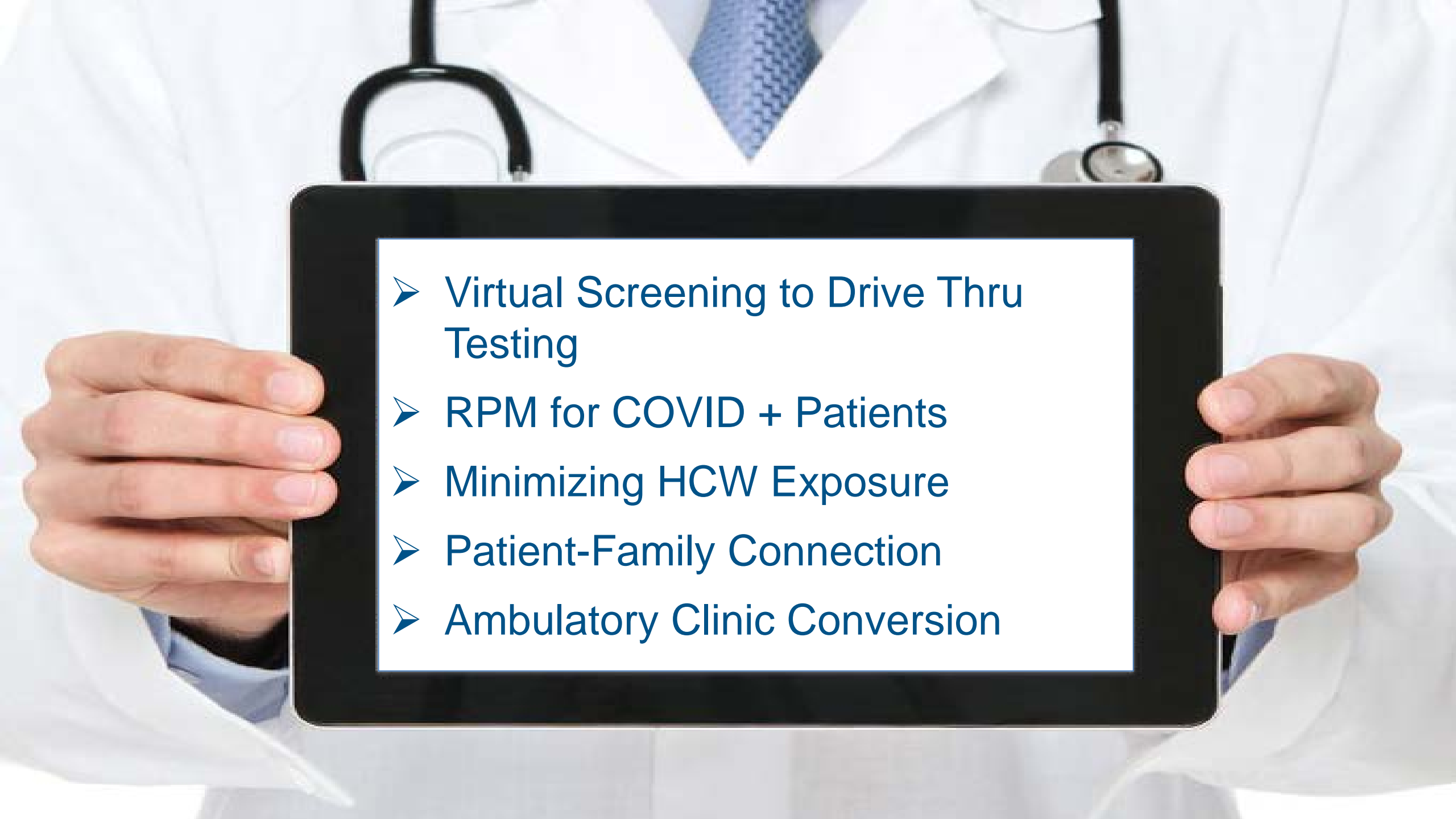
2019

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

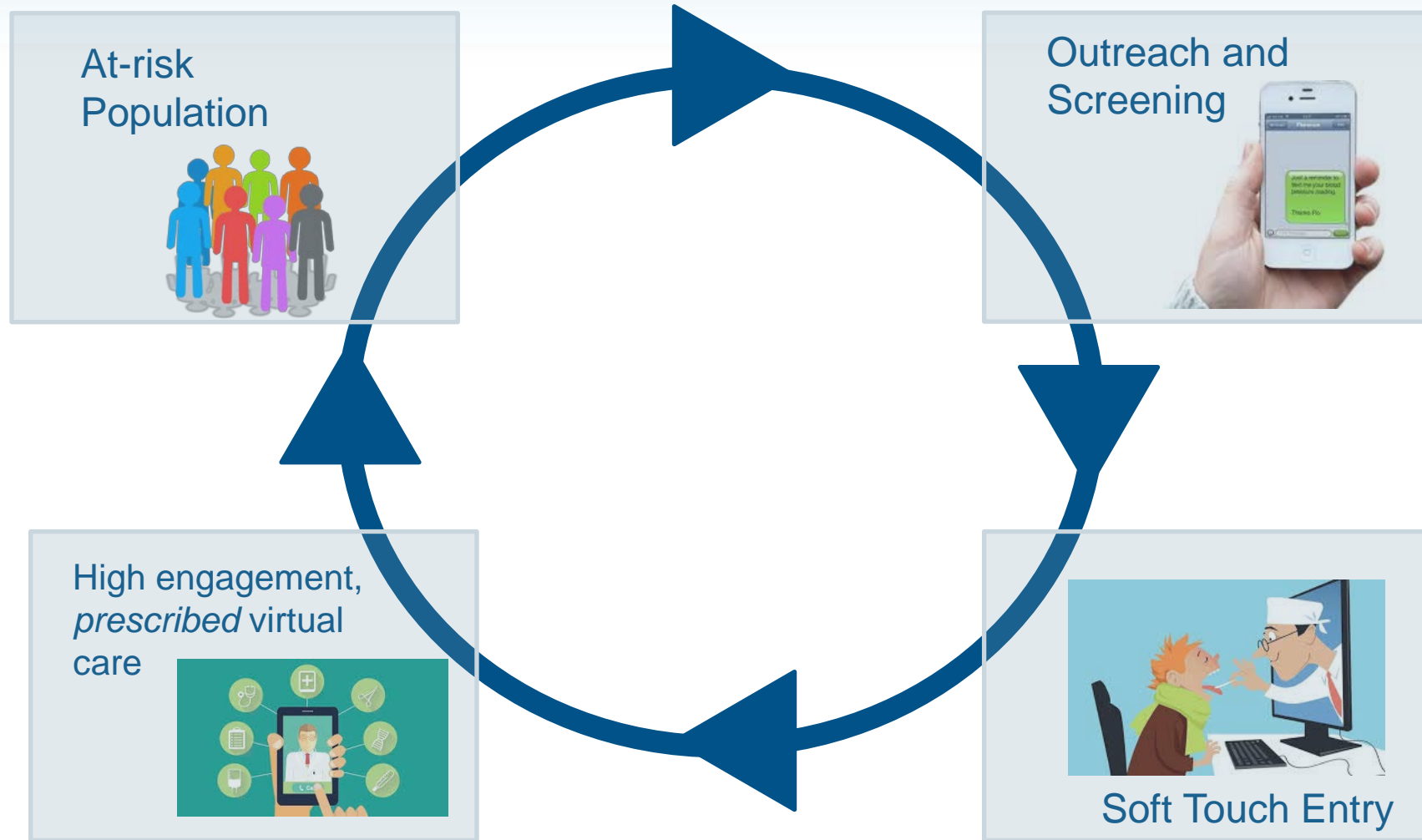


**Health Resources & Services Administration**

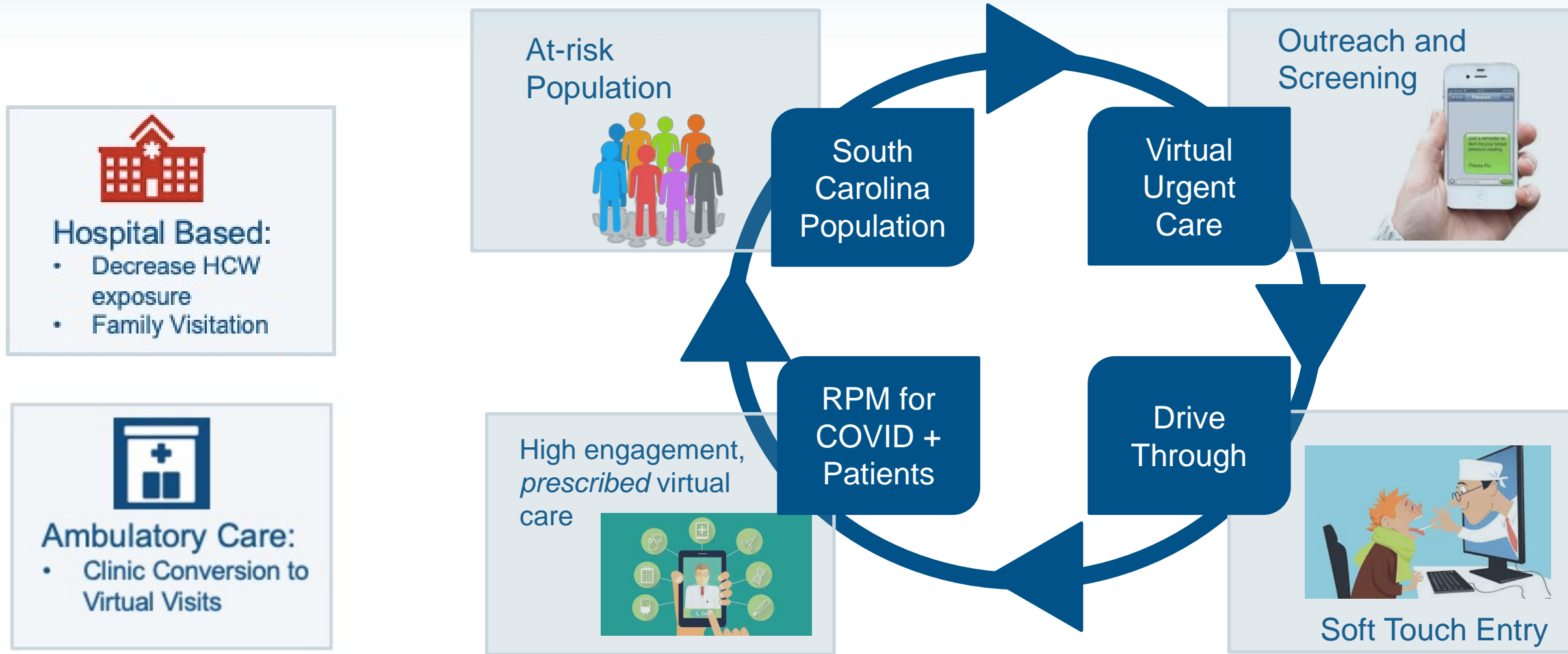


- 
- A doctor in a white lab coat with a stethoscope around their neck is holding a black tablet. The tablet screen displays a list of five healthcare strategies, each preceded by a blue right-pointing arrowhead.
- Virtual Screening to Drive Thru Testing
  - RPM for COVID + Patients
  - Minimizing HCW Exposure
  - Patient-Family Connection
  - Ambulatory Clinic Conversion

# Digital Patient Engagement Cycle



# Pandemic Patient Engagement Cycle





# Virtual Urgent Care Screening



# Virtual Urgent Care Screening

<b>Mission</b>	<ul style="list-style-type: none"><li>• Streamline testing, minimize unnecessary in-person visits</li></ul>
<b>Goal</b>	<ul style="list-style-type: none"><li>• Entry point for majority of outpatient COVID-19 testing</li></ul>
<b>Description</b>	<ul style="list-style-type: none"><li>• Streamlined VUC tool</li><li>• Continuous quality review</li><li>• Pathways for vulnerable populations (e.g. homeless)</li></ul>



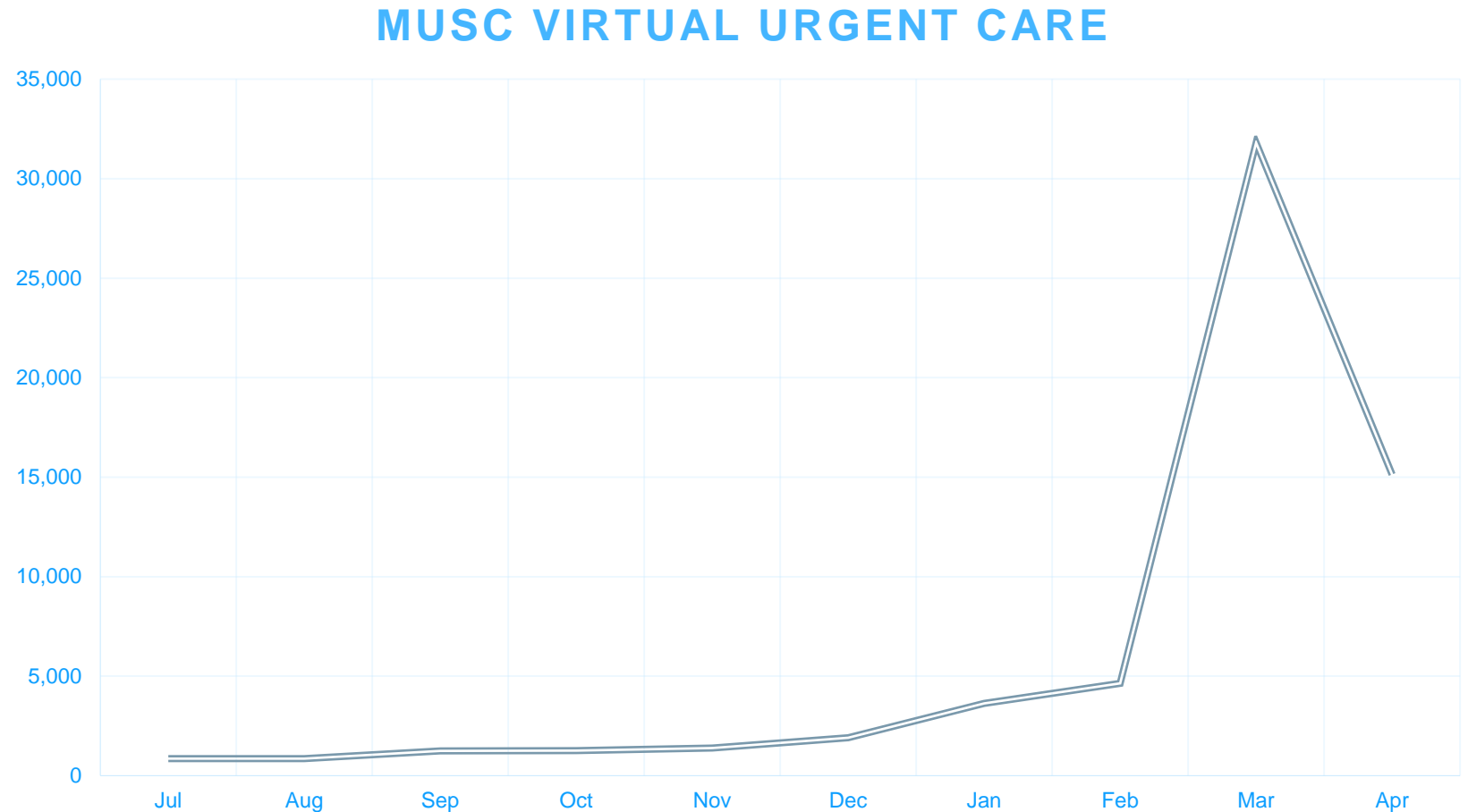
# Virtual Screenings for COVID-19

- Adapted URI protocol on Virtual Urgent Care platform with evolving CDC guidelines
- Mobilized workforce of existing MUSC advanced practice providers (APPs)
  - Privileging and credentialing
  - Practice scope agreements
  - Compensation and payment model
  - Training on platform and process
  - Continuous quality improvement



# Virtual Screening for COVID-19

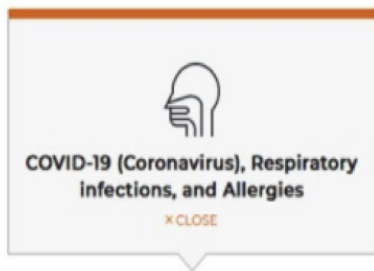
- Virtual Urgent Care volume > 30K in March
- Additional entry points created for vulnerable populations
  - Spanish-speaking online screening
  - Phone screening for patients without (or trouble with) internet
  - Community screening tool for homeless shelters
  - Pop up testing sites across SC





# Virtual Screening to Remote Patient Monitoring

What is the reason for this visit?



## Virtual Screening

- High risk patients identified
- Referral for additional testing



Activate ZipTicket

COVID Test

## E-ticket

- Activates order creation in EHR
- Self schedule for Drive Through testing



## Drive Through

- Orders and schedule driven by Virtual Care screening
- Respiratory specimen collected



MRN	Patient	Age	Room/Bed	HM Enrolled
000330001	Zimmetz, Paul	30 y		
000330049	Zimmetz, Tim	3 y		
000330049	Test, Peter	69 y		
000330728	Zipf, Jonathan	4 y		

## Remote Patient Monitoring

- Non-hospitalized COVID + patients
- MUSC-built, population management tool



# COVID Remote Patient Monitoring (RPM)

<b>Mission</b>	<ul style="list-style-type: none"><li>• Monitor COVID-19 outpatients (clinical oversight, education, and emotional support)</li></ul>
<b>Goal</b>	<ul style="list-style-type: none"><li>• Offer all COVID-19 outpatients access to RPM</li></ul>
<b>Brief Description</b>	<ul style="list-style-type: none"><li>• Validated patient reported outcome (PRO) tool</li><li>• Subset with pulse oximetry</li><li>• Nurse phone call for worsening PROs</li><li>• Escalate to video visit (nurse and physician)</li><li>• Safe referral to ED</li></ul>



# Remote Patient Monitoring for COVID + Patients

- Patient-reported outcomes (PRO) solution to track symptoms in home bound patients
- Dedicated patient registry in EHR
- Nurses tracking dashboard that includes risk and disease progression
- ~300 patients enrolled over first month (went live 3/30/20)
  - 11.76% high risk
  - >2,000 RPM nurse interactions

MUSC COVID-19 Positive Patients [5735864] as of Thu 4/2/2020 12:53 PM

Filters Options Chart Telephone Orders Only Encounter Send Staff Message Send Patients Message Add to List

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 Infectio	COVID-19 Exposu
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	Zztest, Bcmathree	4 y.o.			Positive	03/20/2020	Completed		
005537239	Leapfrog, Test Fifteen	61 y.o.	U10W 1966 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.	12B 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

	Noted	Resolved
10p partial monosomy syndrome [Q93.89] Class: Acute	11/2/2016 by Physician Musc Amb Inp, MD	No
End-stage renal disease [N18.6]	4/3/2017 by Caroline Miller, RN	No

© 2020 Epic Systems Corporation. Used with permission.

A screenshot of a test of how the COVID-19 monitoring appears to nurses. Image used with permission of Epic Systems Corporation



# Remote Patient Monitoring for COVID + Patients

*“Cheryl made me realize that there was someone who really cared about me.”*

*“Son, let me tell you something, I don't mind telling you I was very scared and when I talked to Perette she assured me that I was taken care of and that someone was there to help me. Son, this calmed me down; **she was, everything to me.** I can't tell you how that sense of assurance saved me. I was all alone and then I had people looking out for me. I do not know what I would've done without them.”*

*“Cheryl was like an angel watching over me.”*

*“I was so glad that Eric was there he was very nice and made me feel like I had a friend, he was the whole 9 yards. I tell you son, that Eric is 10 times better than my regular doctor that's for sure. I think we should use this thing and that Eric for my COPD.”*



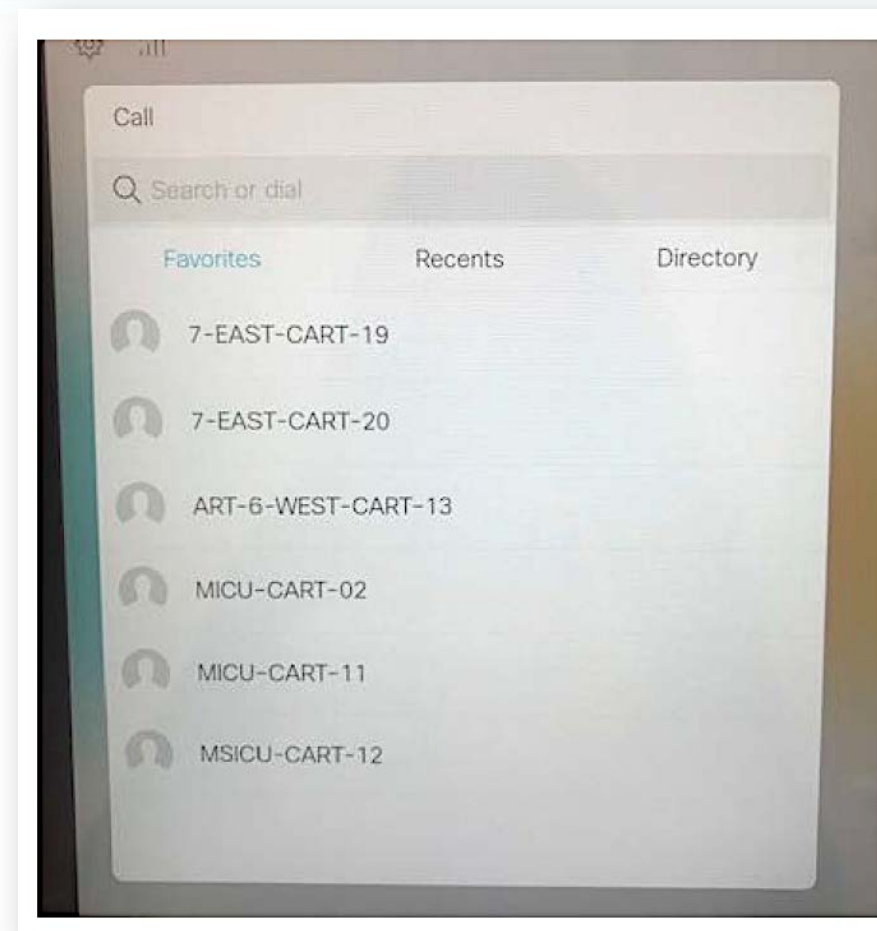


# Minimize HCW Exposure

<b>Mission</b>	<ul style="list-style-type: none"><li>• Limit unnecessary HCW exposure to COVID-19</li><li>• Reduce PPE use</li></ul>
<b>Goal</b>	<ul style="list-style-type: none"><li>• 100% COVID-19 inpatients &amp; PUI's with video enabled rooms</li></ul>
<b>Brief Description</b>	<ul style="list-style-type: none"><li>• Conscripted tele-sitter technologies (high quality and reliability)</li><li>• Carts in patient rooms, monitor at nursing stations, telehealth pod</li></ul>



# Minimize HCW Exposure



# 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

Cost saving example for 1000 interactions per week

- \$9,780 PPE preserved per week
- \$12,190 nursing time saved per week



# Patient – Family Connection



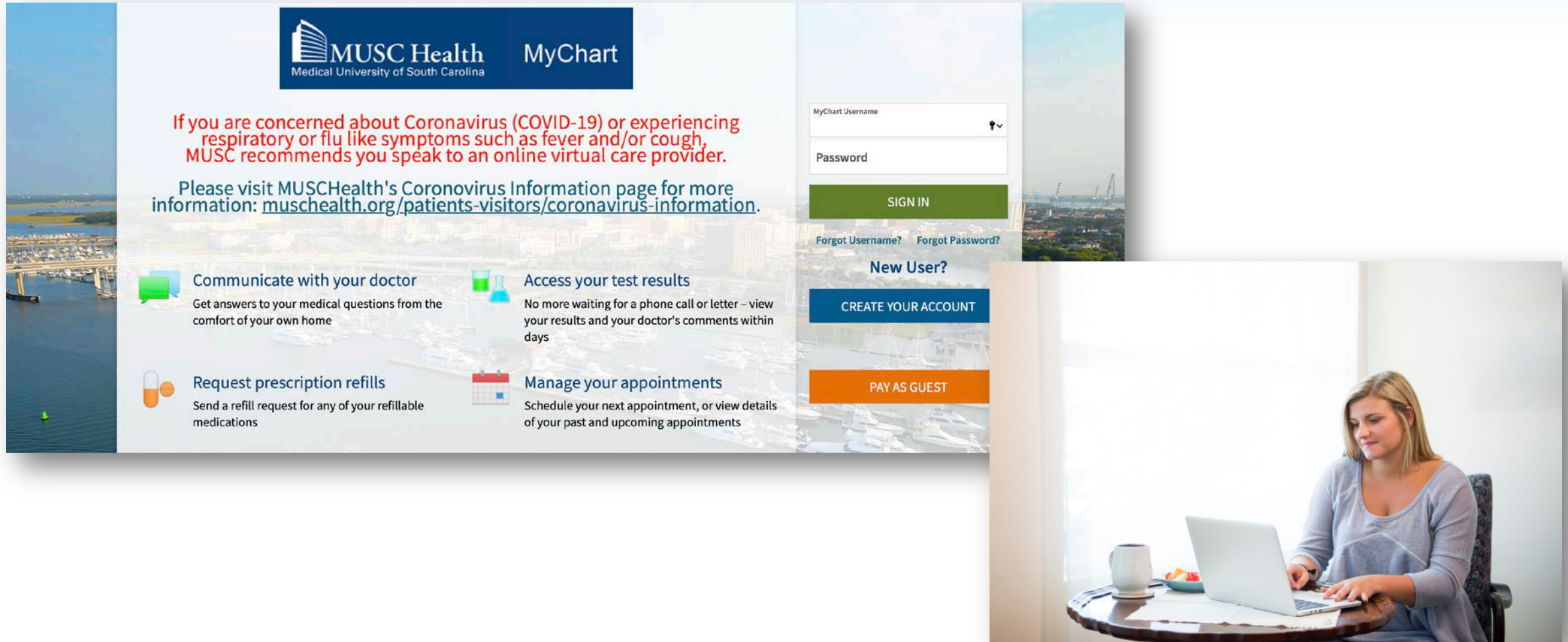


# Patient – Family Connection

<b>Mission</b>	<ul style="list-style-type: none"><li>• Support family-centered care through virtual family visitation</li></ul>
<b>Goal</b>	<ul style="list-style-type: none"><li>• 100% of inpatient units with tools for family &amp; spiritual support video visits</li></ul>
<b>Brief Description</b>	<ul style="list-style-type: none"><li>• Identified available tablet technologies</li><li>• Utilize secure video client or patient's preferred platform</li></ul>



# Ambulatory Clinic Conversion



The collage features a screenshot of the MUSC Health MyChart website on the left and a photograph of a woman sitting at a table with a laptop on the right. The website interface includes the MUSC Health logo, a COVID-19 notice, a login section with fields for MyChart Username and Password, and links for new users and guest access. Below the login section are four service tiles: 'Communicate with your doctor', 'Access your test results', 'Request prescription refills', and 'Manage your appointments'.

**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](https://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

Changing What's Possible | MUSCHealth.org



# Ambulatory Clinic Conversion

<b>Mission</b>	<ul style="list-style-type: none"><li>• Ensure patient needs safely supported</li><li>• Maximize ambulatory volumes</li></ul>
<b>Goal</b>	<ul style="list-style-type: none"><li>• 80% of pre-pandemic ambulatory visit volume with use of telehealth</li></ul>
<b>Brief Description</b>	<ul style="list-style-type: none"><li>• Multi-disciplinary: providers, telehealth, compliance, clinic staff</li><li>• Daily monitoring for issues</li><li>• Daily monitoring of volumes</li></ul>



# Ambulatory Care Conversion to Telehealth

## Optimize provider/staff utilization

- Provider experience
- Minimize visit loss due to processes and technologies

## Maximize billing and revenue

- Standardize billing by scheduled visit type
- Maximize resource use efficiencies

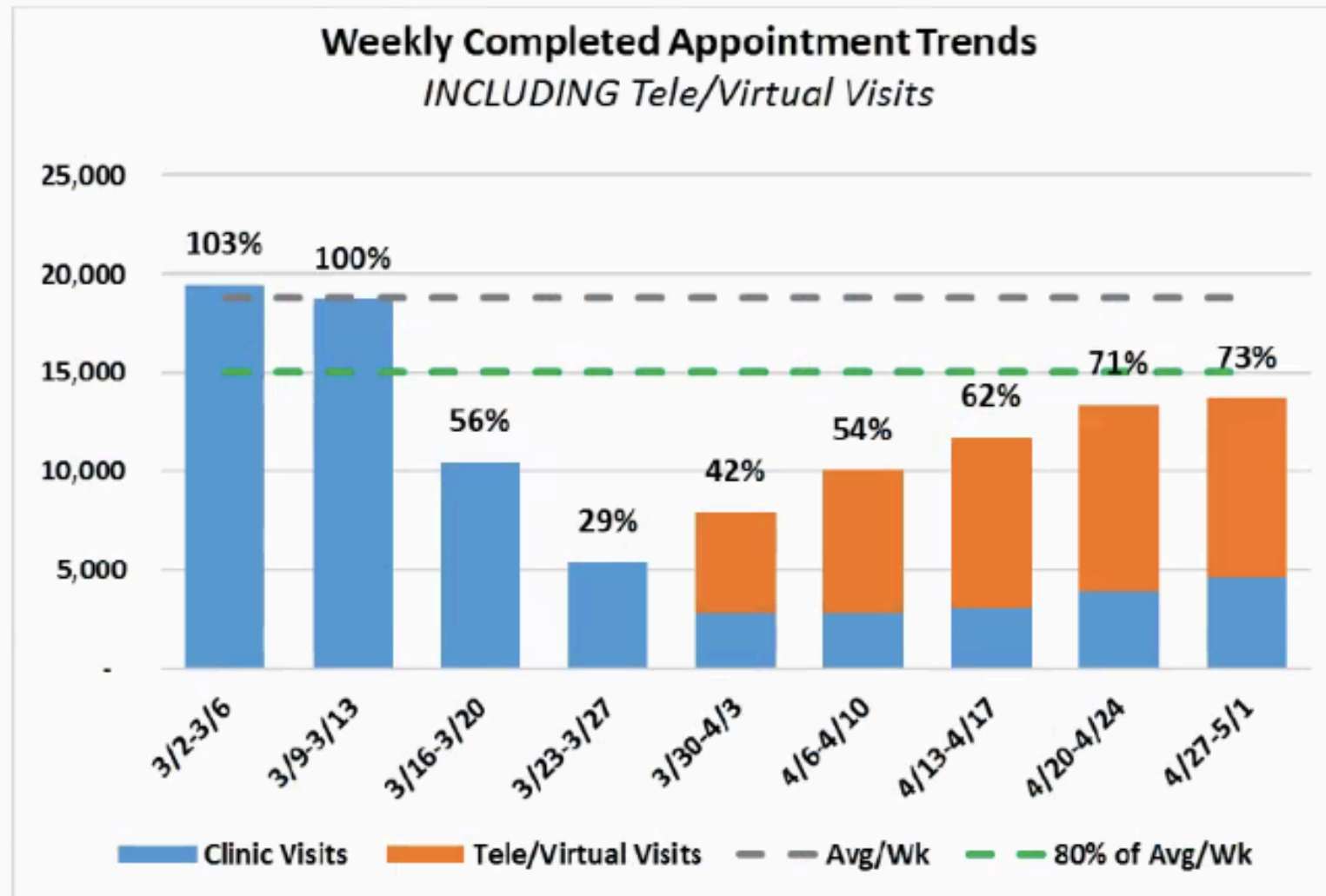
## Increase patient utilization

- Promote awareness
- Patient experience





# Ambulatory Care Conversion to Telehealth



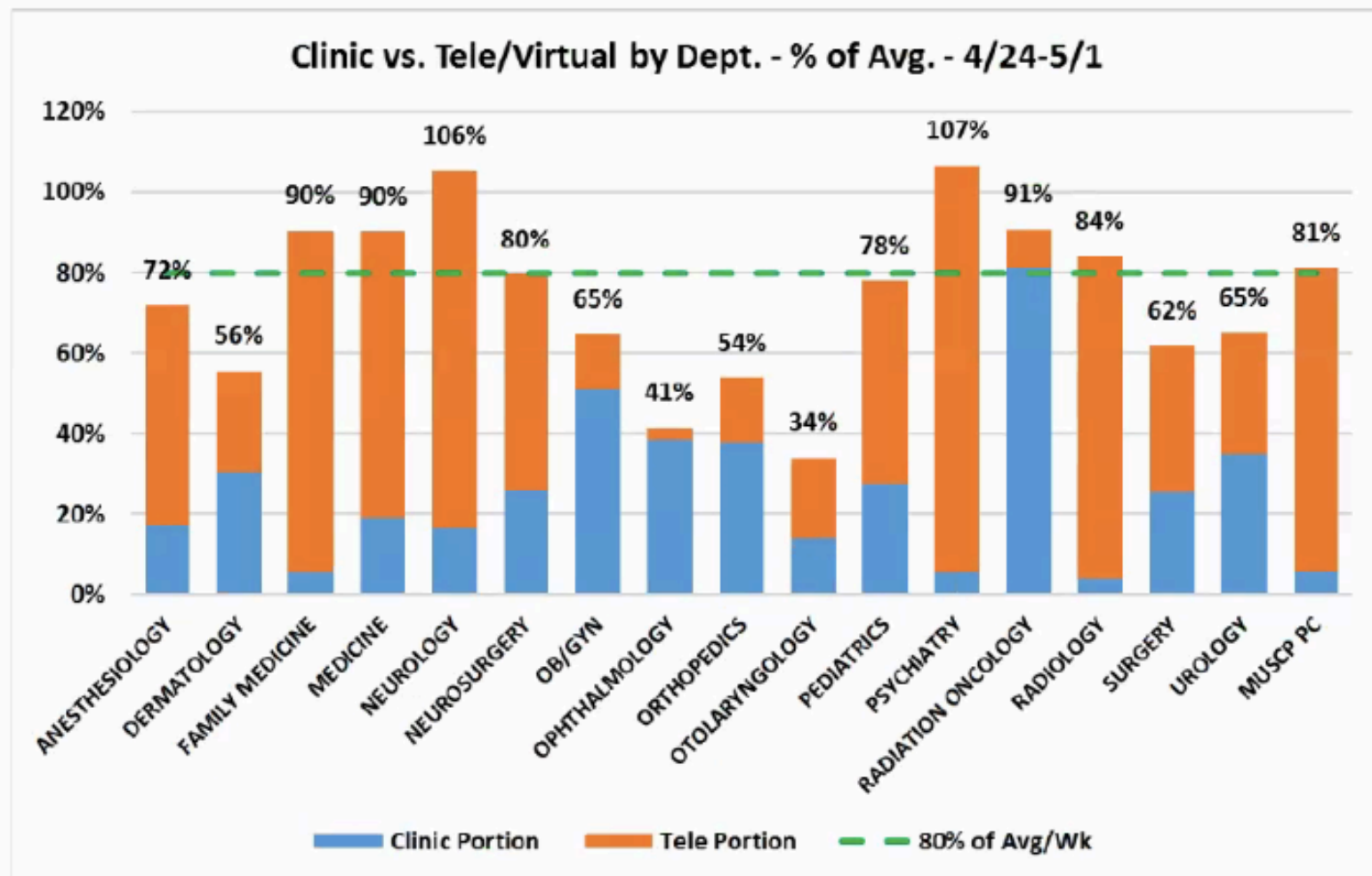
Virtual visits are here! MUSC Health Eye Care specialists are pleased to announce safe, nationally-recognized care to both new and returning MUSC Health patients via face-to-face video visits. Online appointments with our doctors and other providers are available through our virtual care network. See your doctor online using your computer, tablet, or mobile phone. Call 843-792-2020 to schedule a virtual visit.

<http://ow.ly/MVFR50zhDQu>

**Virtual Visits  
are here.**

[muschealth.org/virtual-visits](https://muschealth.org/virtual-visits)

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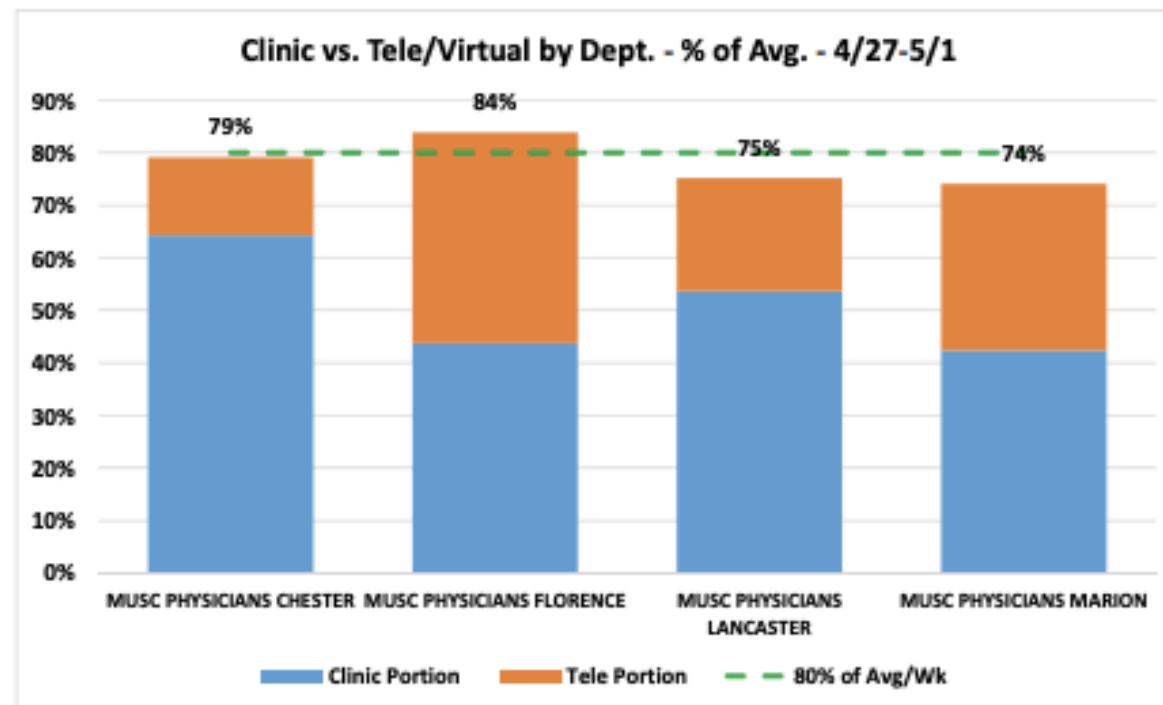
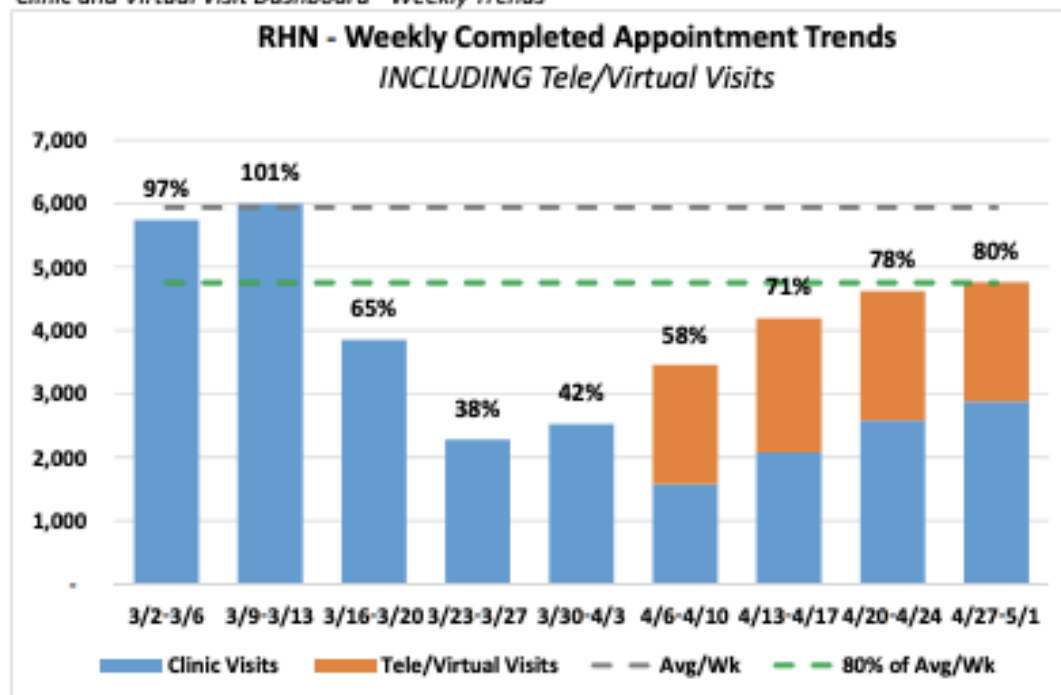
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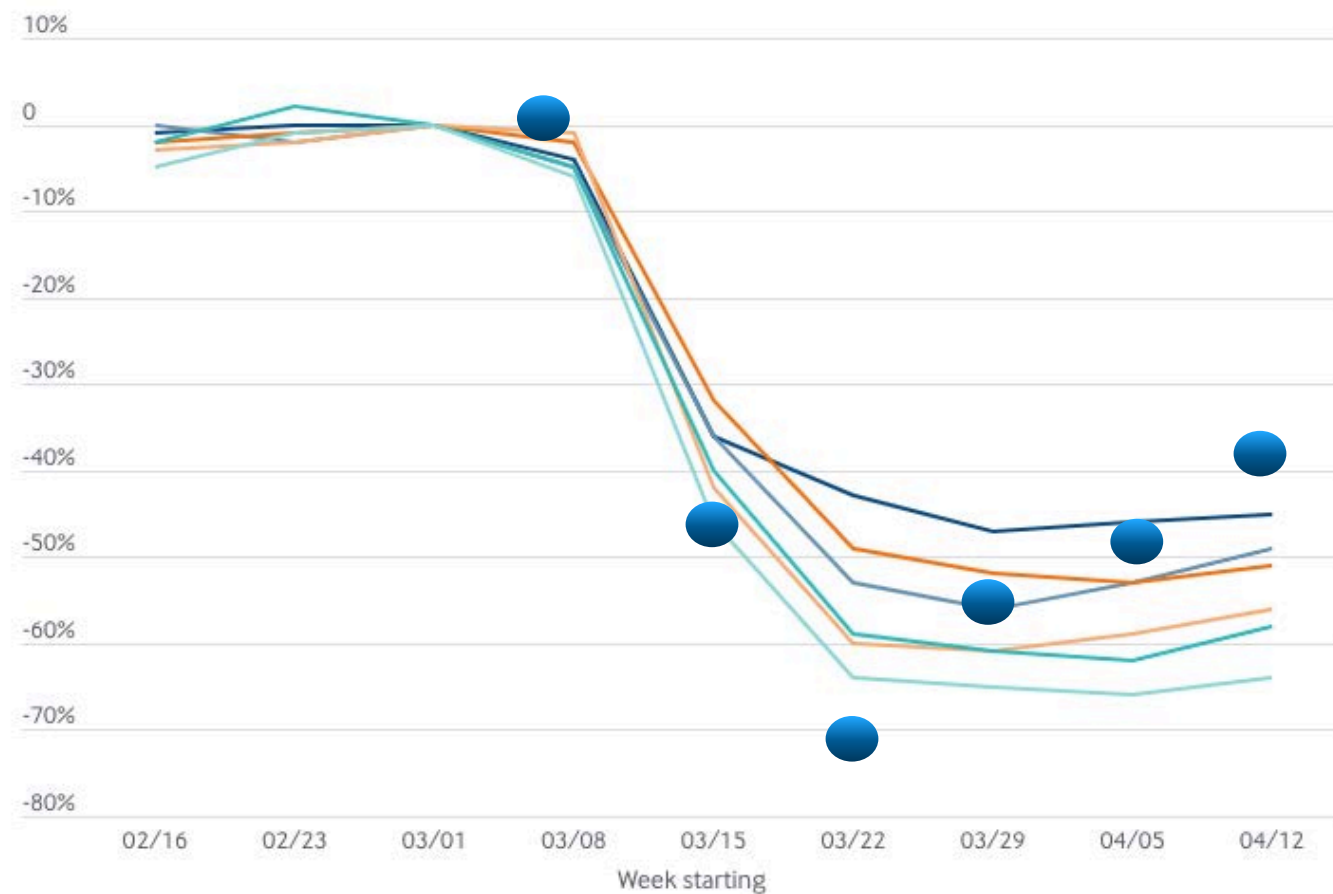
# Ambulatory Care Telehealth - RHN

## Regional Network Consolidated

Clinic and Virtual Visit Dashboard - Weekly Trends



# National Decrease in Ambulatory Care Visits



The  
Commonwealth  
Fund

- Mountain
- South Central (East and West)
- South Atlantic
- North Central (East and West)
- Pacific
- New England & Mid Atlantic





# The Commonwealth Fund (Ambulatory Telehealth)

The number of telemedicine visits rose rapidly through mid-April but then leveled, and even declined slightly, in the last three weeks.

*Number of telehealth visits in a given week as a percent of baseline total visits*

14%

12%

10%

8%

6%

4%

2%

0

02/16 02/23 03/01 03/08 03/15 03/22 03/29 04/05 04/12 04/19 04/26 05/03 05/10

Week starting

● Telehealth visits

MUSC's Number of  
Telehealth Visits in a  
Given Week as a  
Percent of Baseline  
Total Visits

44%

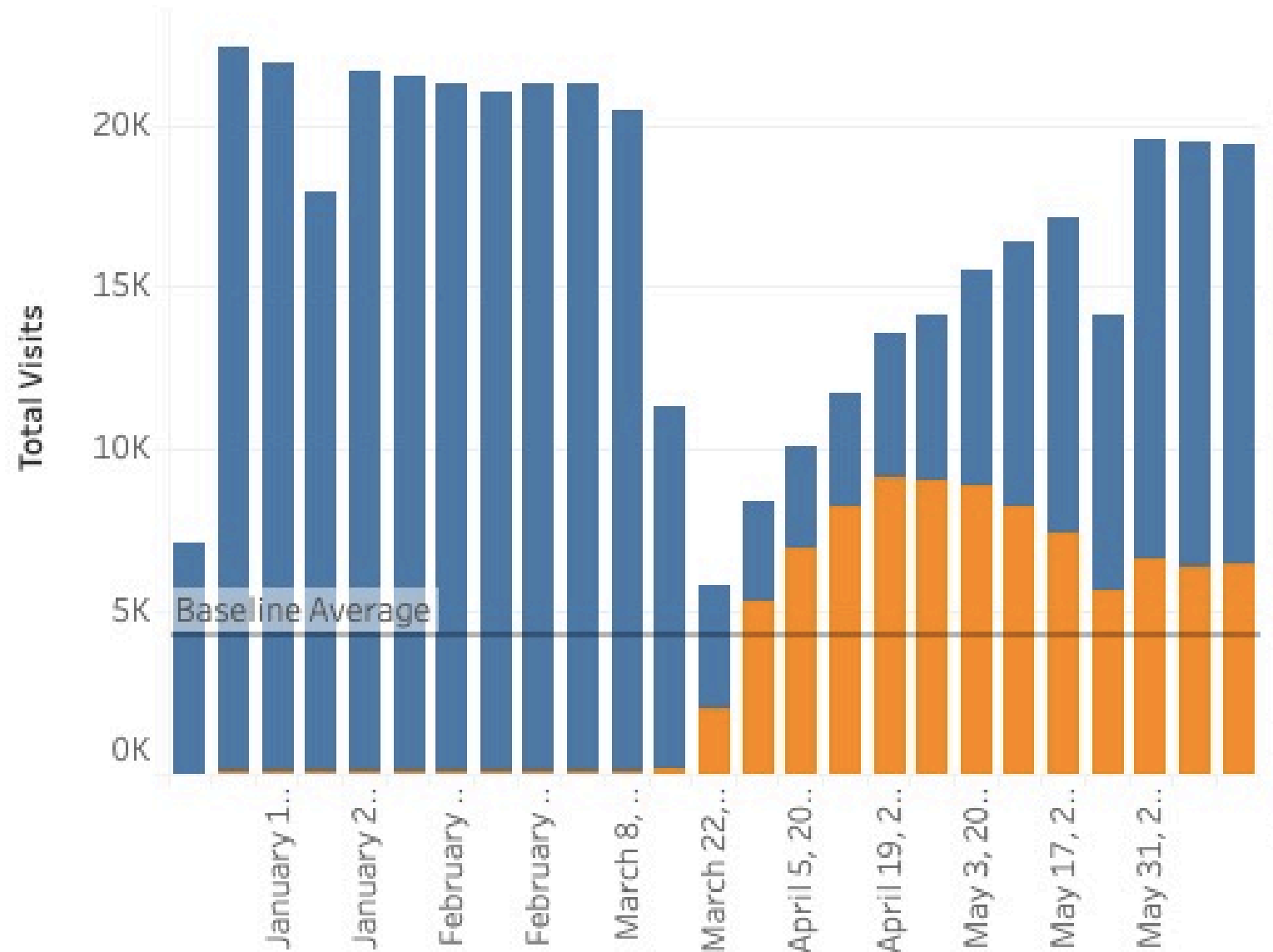
Source: <https://www.commonwealthfund.org/chart/2020/number-person-visits-dropped-telehealth-visits-increased-increase-telehealth-visits-only>



# Ambulatory Care Conversion to Telehealth

Clinic Visit Virtual Visit

Arrived and Completed Daily Appointments - Past 30 Days



# Press Ganey – Telemedicine Survey

## Optimizing the Patient Experience:

- Authenticity
- Agenda Setting
- Empathy
- Closing checklists

### Top Key Drivers of Likelihood to Recommend Care Provider: Telemedicine Survey



Figure represents the odds of top box scores for Likelihood to Recommend the care provider when all three drivers get top box ratings. The proportion of patients who give top scores on all three items is 83.9%.

### Top Key Drivers of Likelihood to Recommend Video Visit: Telemedicine Survey

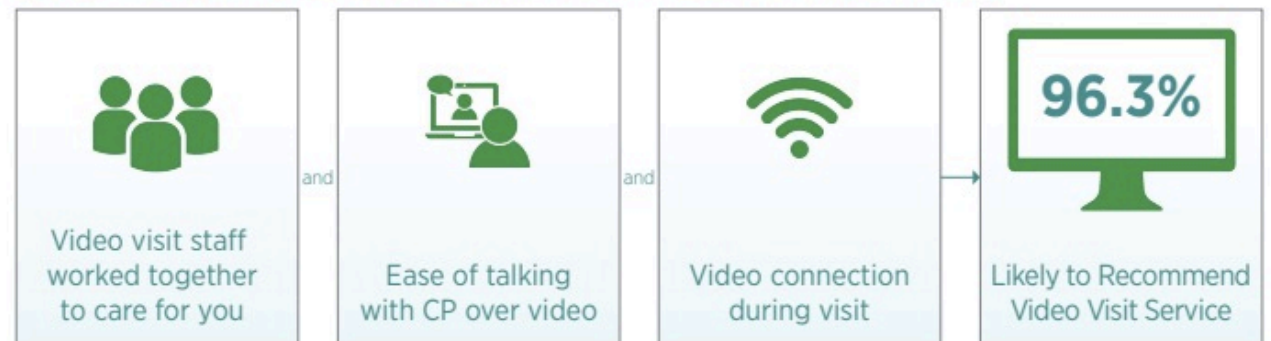


Figure represents the odds of top box scores for Likelihood to Recommend the Video Visit when all three drivers get top box ratings. The proportion of patients who give top scores on all three items is 63.5%.



# Lessons Learned

1. It's not a marathon. It's an Ironman Triathlon!
2. It takes a Village!
3. Simplicity helps achieve scale.







A SMOOTH SEA  
NEVER MADE A  
SKILLFUL  
SAILOR.



# Questions?



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[valentas@musc.edu](mailto:valentas@musc.edu)

