

# PURPOSE IN MOTION

## **Solutions-Focused Strategies to Improve Access to Care:**

Successes of a Virtual-Only  
Specialty Care Program

# Disclosure of Relevant Financial Relationships

- The following faculty of this continuing education activity has no relevant financial relationships with commercial interests to disclose:
  - Jillian Harvey, PhD
  - Emily Warr, MSN
  - Caitlin Koob, PhD, OTR/L

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# Acknowledgement



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# Faculty

- **Jillian Harvey, PhD**
  - Professor, Medical University of South Carolina, Department of Healthcare Leadership & Management
- **Emily Warr, MSN**
  - System Administrator, Medical University of South Carolina, Center for Telehealth
- **Caitlin Koob, PhD, OTR/L**
  - Research Associate Faculty, Medical University of South Carolina, Department of Healthcare Leadership & Management

# Learning Objectives

- Describe how to design and implement successful virtual programs that address the gaps in workforce, quality, access and patient care needs.
- Discuss lessons learned from program implementation that could inform the expansion and further scaling of future programs or initiatives.

# Agenda

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Virtual Specialty Program Development & Implementation

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Questions



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Jillian Harvey is a Professor in the Departments of Healthcare Leadership and Management at the Medical University of South Carolina (MUSC) and the Director of the Doctor of Health Administration Division. She received a Master of Public Health from Oregon State University and a Ph.D. in Health Policy and Administration from the Pennsylvania State University. Her research experience includes program evaluation, healthcare quality improvement, and mixed methods research approaches. Dr. Harvey is a Co-Investigator for the MUSC HRSA funded Telehealth Center of Excellence and the Evaluation Director for MUSC's NIH-funded Clinical and Translational Science Award (CTSA). Her academic focus is on the development and implementation of telehealth programs and their impact on healthcare outcomes.



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Caitlin Koob is a Research Associate in the Department of Healthcare Leadership and Management at the Medical University of South Carolina (MUSC) and is an embedded mixed-methods methodologist within MUSC's HRSA-funded Telehealth Center of Excellence (COE). Her clinical background is in occupational therapy, and she earned her PhD in Applied Health Research and Evaluation from Clemson University. Dr. Koob supports research and evaluation efforts within MUSC's Telehealth COE, and her research focuses on improving healthcare access, quality and outcomes – through telehealth – across pediatric and adult populations.



Emily Warr, MSN, RN  
System Administrator

Center for Telehealth

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Emily H. Warr, MSN, RN, is the System Administrator for the Medical University of South Carolina Center for Telehealth, a HRSA designated Center of Excellence. Emily began her career at MUSC as a critical care nurse in 2002 and has extensive experience in pediatric and adult ICUs, including managing MUSC's Extracorporeal Life Support Center.

In 2020, Emily became the Administrator for the MUSC Center for Telehealth. In this role, she oversees the strategic growth and direction of South Carolina's telehealth initiatives, as well as the quality of service delivery for MUSC and statewide telehealth activities ranging from acute hospital support to direct to consumer modalities. She is highly engaged in initiatives to advance digital patient engagement and virtual care in South Carolina and beyond as a recognized national leader in this space.

# Background

# Medical University of South Carolina (MUSC)



- Patient care is provided at 16 hospitals (includes owned or governing interest)
- Approximately 2,700 beds and four additional hospital locations in development
- Nearly 750 care locations situated in all regions of South Carolina.

## **Center for Telehealth at MUSC**

- The Center for Telehealth has over 15 years of experience providing telehealth, offering over 100 unique telehealth services to over 280 sites across South Carolina.
- Care settings include over 45 hospitals, over 90 schools, and over 100 community clinics and other facilities.

# Our History

## MUSC Center for Telehealth

State of South Carolina  
telehealth investment. MUSC  
Center for Telehealth founded

2005-  
2009

### Early Years

*Telestroke, TeleICU,  
TelePsych, Maternal Fetal  
Telemedicine*

2013

2014

### SCTA Founded

*South Carolina Telehealth  
Association founded.  
Headquartered at MUSC*

2017

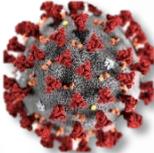
## Center of Excellence

Designated by Health Resources  
& Services Administration  
(HRSA) as a national Telehealth  
Center of Excellence

2020

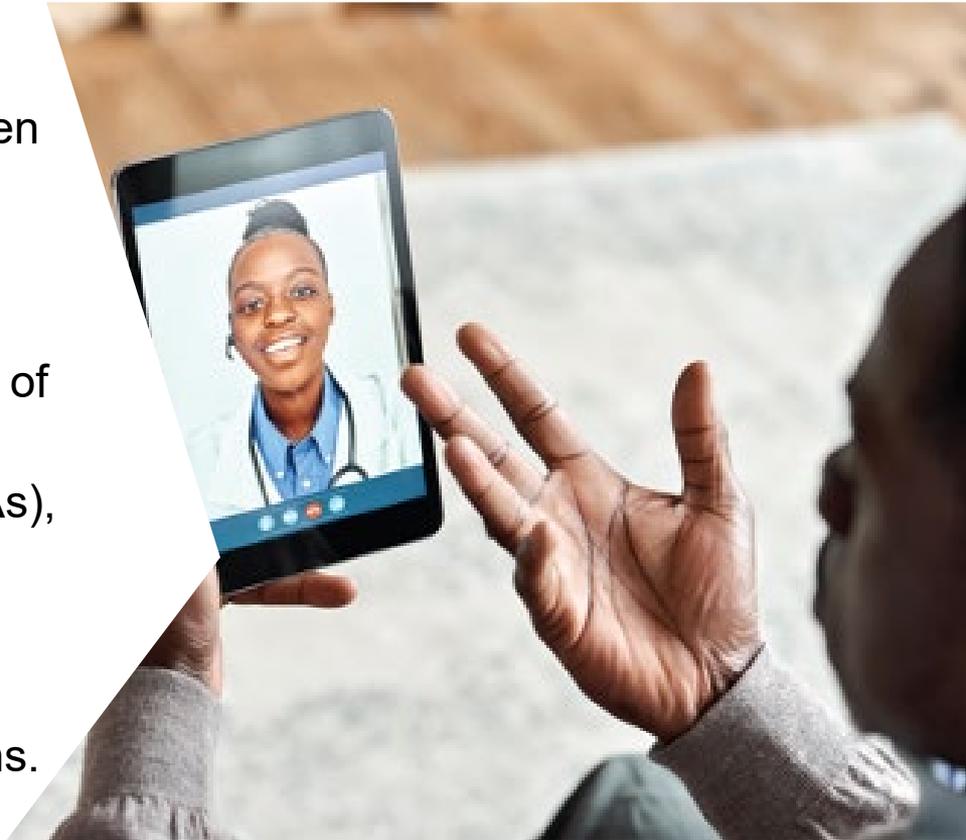
### Telehealth Expansion

*Explosive growth of telehealth  
in ambulatory space due to  
COVID-19*



# Problem: Access challenges in SC

- **Problem:** Patients in South Carolina often have difficulty accessing in-person care, which results in delays and poor health outcomes
  - **Context:** South Carolina has 41 out of 46 counties designated as Health Professional Shortage Areas (HPSAs), leading to delays in accessing in-person specialty care.
  - Average Wait times for in-person specialty visits could take 3-6 months.



# Access issues projected to worsen

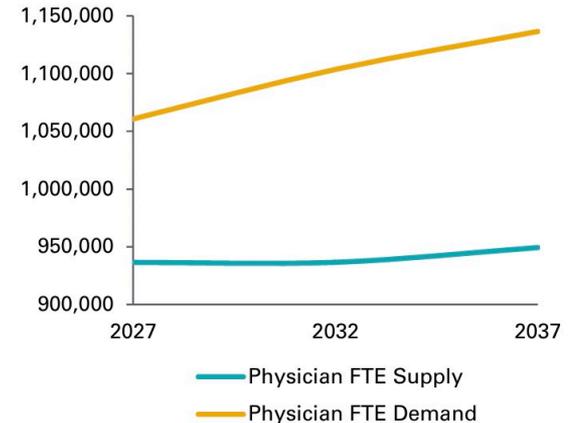
## Projected Workforce Shortages by 2037 (HRSA)

- 187,130 physicians
- 207,980 registered nurses (RNs)
- 302,440 licensed practical nurses (LPNs)
- 113,930 addiction counselors
- 87,840 mental health counselors
- 79,160 psychologists
- 9,140 physical therapists
- 17,030 pharmacists

Figure 1. Factors Driving U.S. Health Care Workforce Crisis



Figure 2. Projected Physician Supply Versus Demand (2027–2037)



# And telehealth projected to grow

## Hybrid Care Is Here to Stay



**10% to 14%**  
of all clinical  
practice visits have  
been virtual visits  
post-pandemic.

### E&M visits conducted via telehealth:

 **50%**  
of behavioral health

 **3%**  
of orthopedics

 **5%**  
of cardiovascular



**27%**  
of all E&M visits will  
be virtual by 2033.



**30%**  
increase in digital/  
telehealth companies'  
claims volume from  
2021 to 2022

Note: Analysis excludes 0–17 age group. Virtual visits defined as Established Patient Visits—Virtual and New Patient Visits—Virtual. In-person visits defined as Visits—Evaluation and Management, Established Patient Visits—In Person and New Patient Visits—In Person. Sources: Data from AAMC-Vizient Clinical Practice Solutions Center<sup>®</sup> used with permission of Vizient, Inc. All rights reserved; Impact of Change<sup>®</sup>, 2023; Proprietary Sg2 All-Payer Claims Data Set, 2021; The following 2021 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts<sup>®</sup>, 2023; Sg2 Analysis, 2024.

# Solution

- **A Virtual Specialty Service Line** was developed to increase access to specialty providers, reduce wait times, and improve patient outcomes.

# Virtual Specialty Program Background and Implementation

# MUSC Health Virtual Care Ecosystem: 2026

## Ambulatory

Extend MUSC brand, improve access, offer convenient care

% virtual, capacity management, patient satisfaction, access timeliness, value-based performance, new patient capture, patient engagement & retention

- + - Bidirectional integration status
- Technology partnership
- Service type
- Service description
- Service scope



## Inpatient

Improve access to specialty care and improve hospital-based outcomes

LOS, cost of care, severity adjusted mortality, Leapfrog, core measures, bundle adherence, nursing quality metrics

## Population Health

Improve care for safety net populations and improve value-based care performance

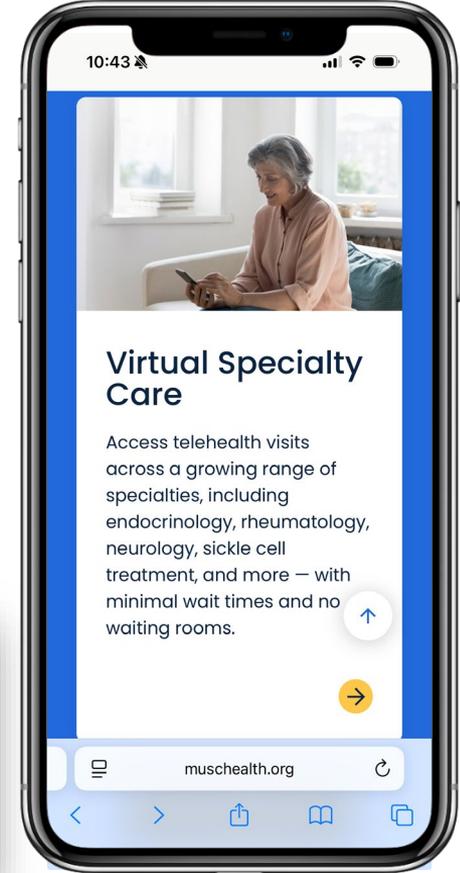
HTN control, A1c control, ED visits, readmissions, behavioral health therapy compliance, infant well visit compliance

# What is the Virtual Specialty Practice?

- **Innovative care model** implemented in January 2023
- **100% virtual practice** seeing new and return patients in high demand **specialties and primary care** across the state
- **Low friction, no barrier online scheduling** with or without a referral
- **Timely access as soon as same day** for primary care and most specialties offered
- Fully staffed virtual 'clinic' with dedicated **RNs, LPNs, and registration** supporting pre-visit and post-visit experience, follow-ups, and **ancillary service** referrals
- Providers and support staff with SC licenses living in multiple states

## 9 specialties:

Endocrinology  
Rheumatology  
Benign Hematology  
Neurology  
Pulmonary  
Sleep Medicine  
Infectious Disease  
Psychiatry  
Dermatology



# Virtual Specialty Approach: Abundance of need

## Program Features

- 100% **virtual care** for high-demand, low access specialties
- Dedicated clinical support team to enhance pre and post visit experience.
- **Coordinated local referrals** for lab work, imaging, and pharmaceuticals.

## Goals

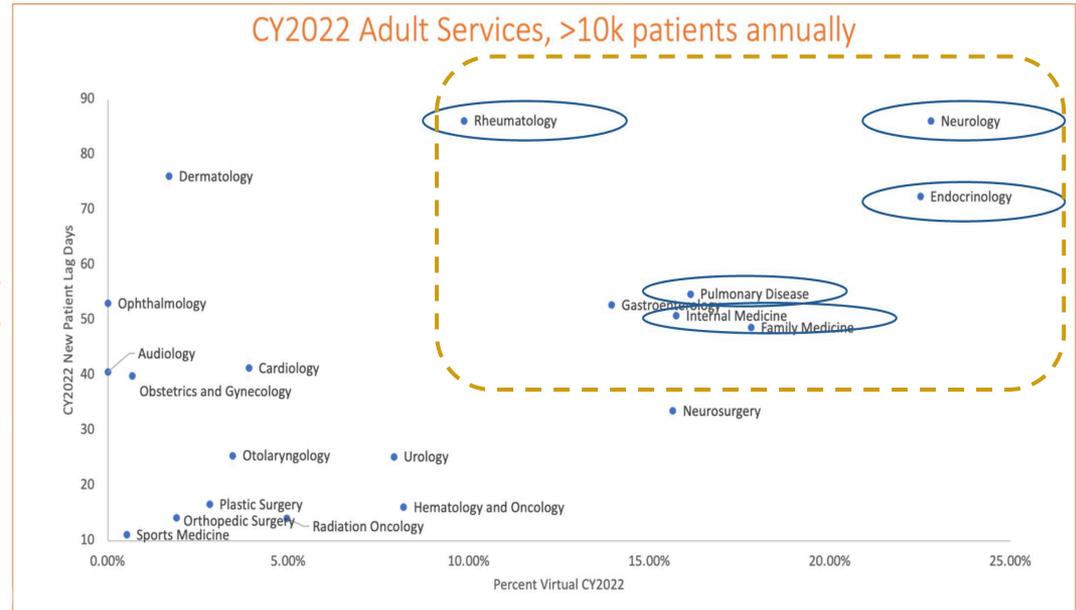
- Reduce wait times for specialty care.
- Increase access to care in rural and underserved areas.
- Successfully recruit specialists for our growing system and state needs.

# Why did we build the Virtual Specialty Practice?

- To **address patient demand** and MUSC access issues
- To **decrease new visit lag days**
- To **grow** our specialty market share statewide
- To meet patients where they are and **start treatment plans**
- To **help affiliates and referring practices** across the state serve their patient's specialty needs
- To **successfully recruit specialists** for our growing system and state needs

New patient lag days

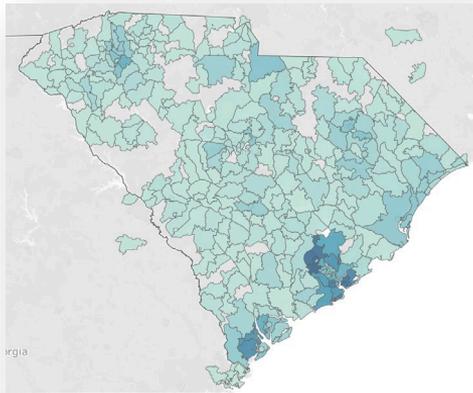
## How did we decide where to start?



% virtual = historical amenability

# How does the Virtual Specialty Practice function?

Fully staffed virtual 'clinic' with dedicated **RNs, LPNs, and registration** supporting pre-visit and post-visit experience, follow-ups, and **ancillary service** referrals



Affiliate ancillary service partnerships for imaging, labs, infusions, etc.



Pre-visit support for clinical triage needs and tech support



My Chart messages with Virtual Practice panel patients



Coordination follow-up with ancillary service network, results management, escalation support



MRN	PATIENT NAME	DATE OF BIRTH	PROVIDER	CARE CENTER	APPOINTMENT TIME	TIV	WAIT TIME	STATUS	CHAT
7894561237	John Doe	7894561237	David Lin	SCHOOLS	1:00PM	0 Mins	0 Mins	JOIN	
4567894567	Mary Smith	4567894567	GENERIC	SCHOOLS	1:15PM	0 Mins	0 Mins	JOIN	
4567894577	Abraham Cole	4567894577	Jessica Cox	SCHOOLS	12:30PM	2 Mins	1 Min	IN PROGRESS	
7539517894	Lesley Lory	7539517894	David Lin	SCHOOLS	1:00PM	0 Mins	0 Mins	NOT READY	
65498778984	Peter Parker	65498778984	Jessica Cox	SCHOOLS	11:00AM	25 Mins	12 Mins	COMPLETED	
7539874544	Maira Schitt	7539874544	David Lin	SCHOOLS	10:00AM	18 Mins	4 Mins	COMPLETED	

# Program Evaluation

# Evaluation Methods: Virtual Care

- We employed the RE-AIM framework to assess key program elements and outcomes. RE-AIM is a popular framework for guiding evaluations, RE-AIM enhances the sustainable adoption and implementation of interventions and services.
- We selected outcomes in the following RE-AIM dimensions
  - **Reach**: the number of participants & their characteristics
  - **Effectiveness**: impact of the program
  - **Adoption**: the providers and service lines who adopt the program
  - **Implementation**: consistency and adaptations made to the program
  - **Maintenance/sustainment**: extent the program becomes routine and institutionalized
- Data: EPIC electronic medical record data and Andor telehealth virtual visit platform data
- Methods:
  - Data are aggregated and trended over time
  - Business intelligence dashboards are also used to enable leadership real-time access to key metrics by provider, program and compare new vs. returning patient types

# Evaluation: In-person Comparison Benchmark

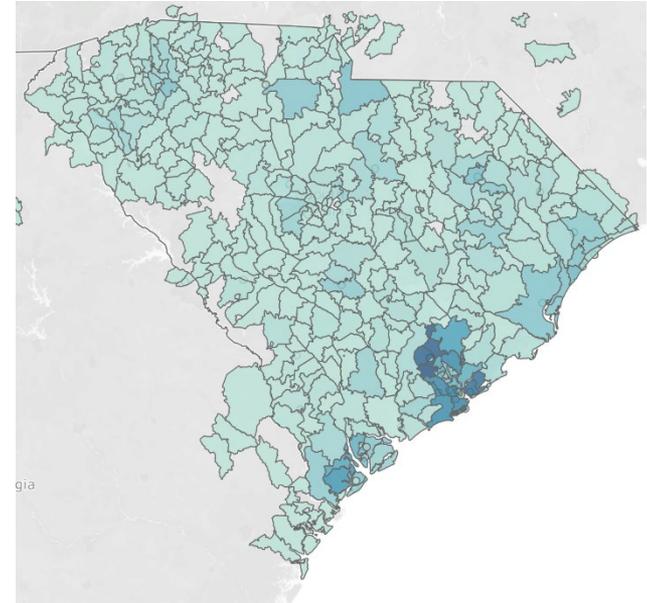
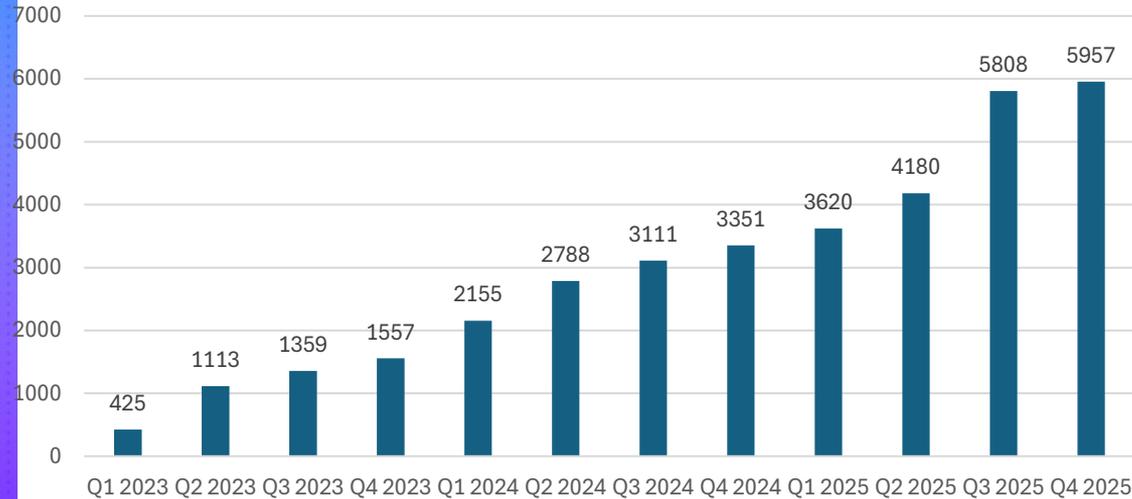
- Patient encounter data from Jan-June 2025
  - In-person for four In-person specialty practices
  - Virtual visits for virtual specialty providers
- Comparison to better understand patient needs, utilization of services, and intensity of services.

# Program Outcomes

# Reach: January 2023-December 2025

Total Virtual Specialty Visits: 35,424

Quarterly Visit Volume



Count By Patient Zip Code



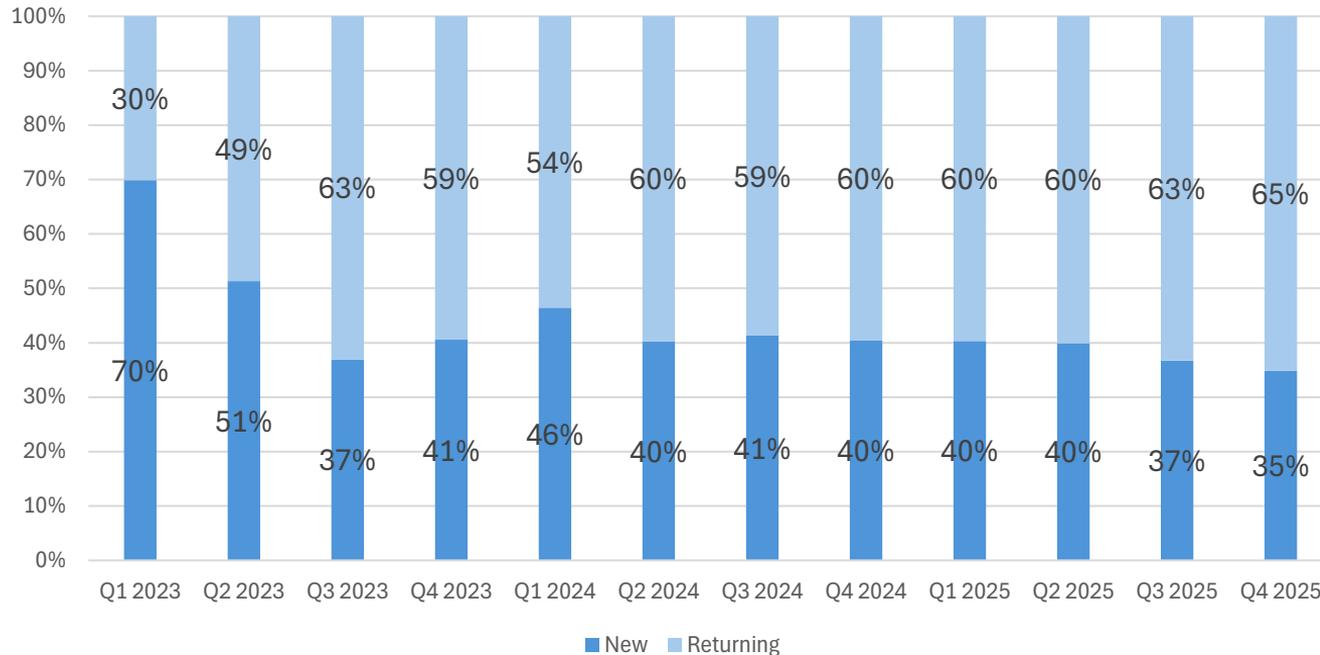
Source: (Harvey et al., 2026)

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# Effectiveness: Expanding Access

Percentage New vs Returning Patients by Quarter



Source: (Harvey et al., 2026)

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# Effectiveness: Capacity Management

Metric	2024	2025
Average New Patients with Appointments w/in 7 days	49.4%	38.4%
Patient Same Day Cancellation or No-Show Rate	16.4%	15.6%

Source: (Harvey et al., 2026)

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# Effectiveness: Appointment Lag Days By Specialty

Specialty	2024	2025
Benign Hematology	13.7	6.9
Endocrinology	34.7	23.8
Gastroenterology	3.4	10.8
Neurology	36.8	52.5
Pulmonology	26.2	40.2
Rheumatology	7.8	8.3
Sleep Medicine	38	41

# Effectiveness: Patient Experience

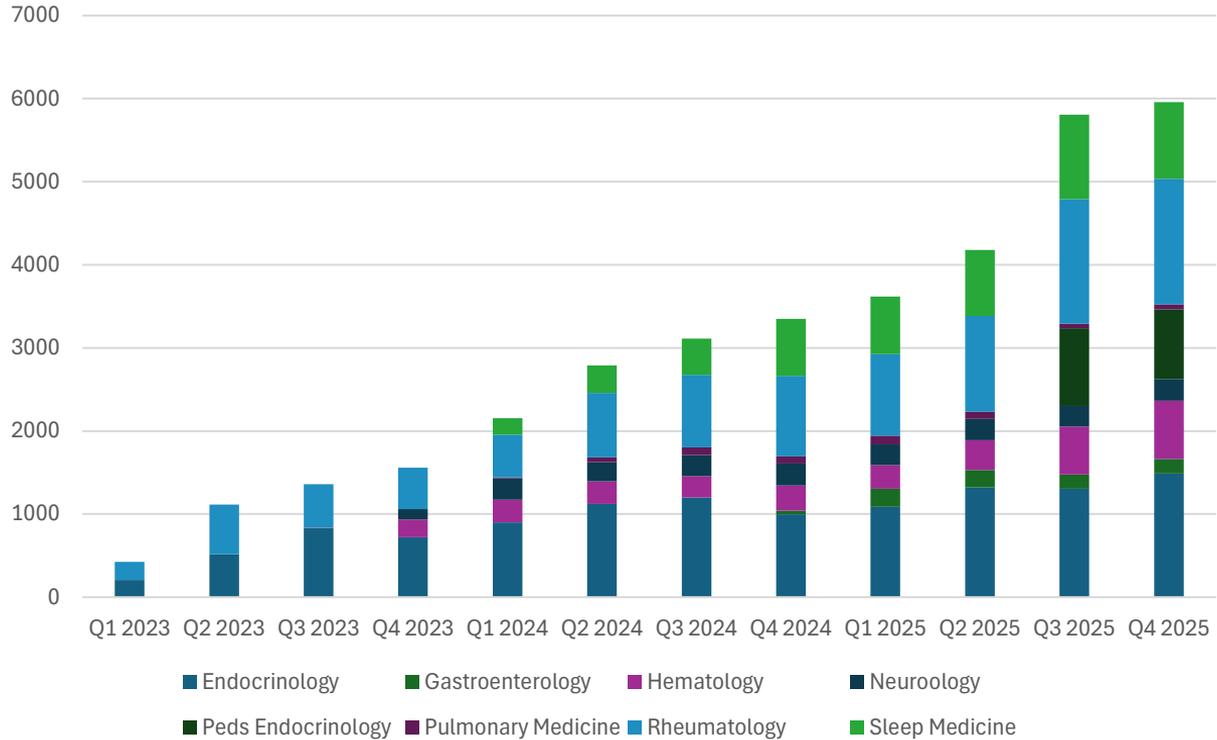
Visit Format	Year	Willingness to Recommend	Access	Care Provider	Nurse/ Assistant	Overall Assessment	Telemedicine Technology
100% Virtual Practice	FY2025	87.0%	83.8%	89.6%	84.5%	87.2%	82.1%
	FY2026	85.6%	81.9%	87.7%	83.8%	86.1%	82.5%
Hybrid: In-person/Virtual Practice	FY2025	84.6%	82.5%	89.2%	85.7%	85.7%	82.0%
	FY2026	86.4%	83.3%	90.0%	86.5%	87.1%	83.3%

Source: (Harvey et al., 2026)

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# Adoption: Volume by Specialty

Utilization by Specialty



# Implementation

Additional providers are added per specialty based on access metrics

Additional specialties are added based on system access needs

Examination of provider capacity vs tendency to overbook to account for no-show appointments

# Maintenance



Benchmarking for sustainability



Assessing relative effectiveness



Context for organizational decision making



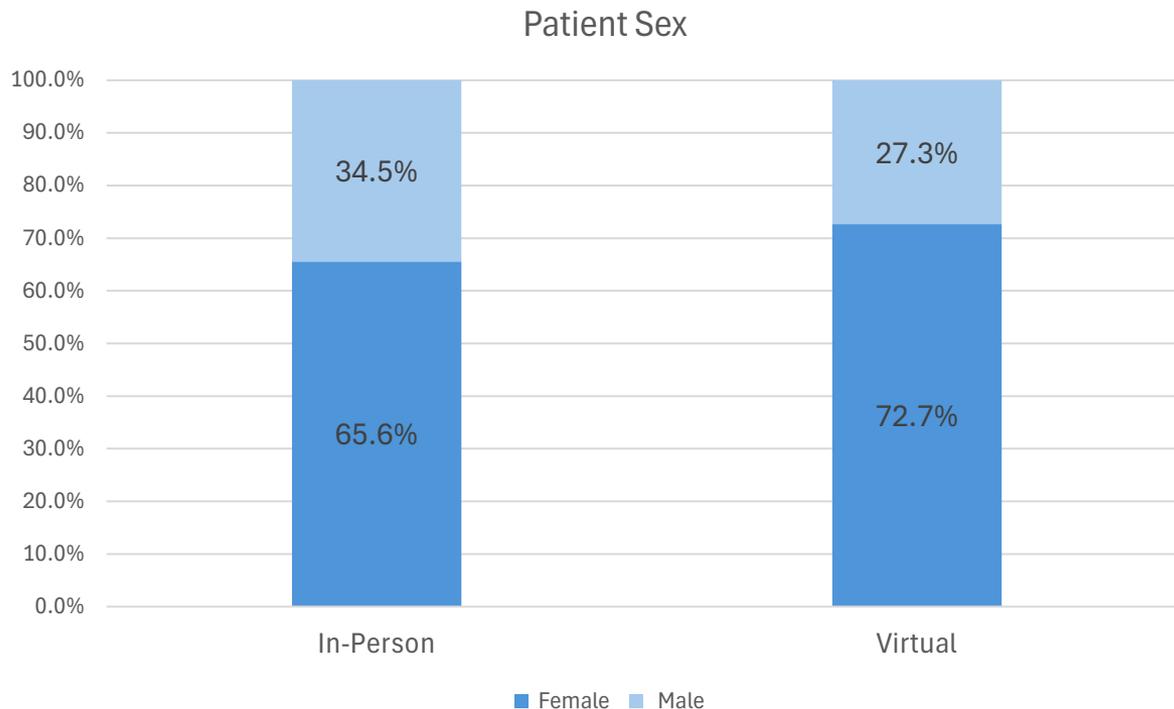
Access evaluation

# Maintenance: Benchmarking Virtual Specialty to In-person Visit Comparisons Jan 1, 2025- June 30, 2025

# Specialty Care Utilization Jan-June 2025

- 38,636 unique patients
- 56,120 total completed visits
  - 48,239 in-person completed visits
  - 7,881 virtual specialty completed visits

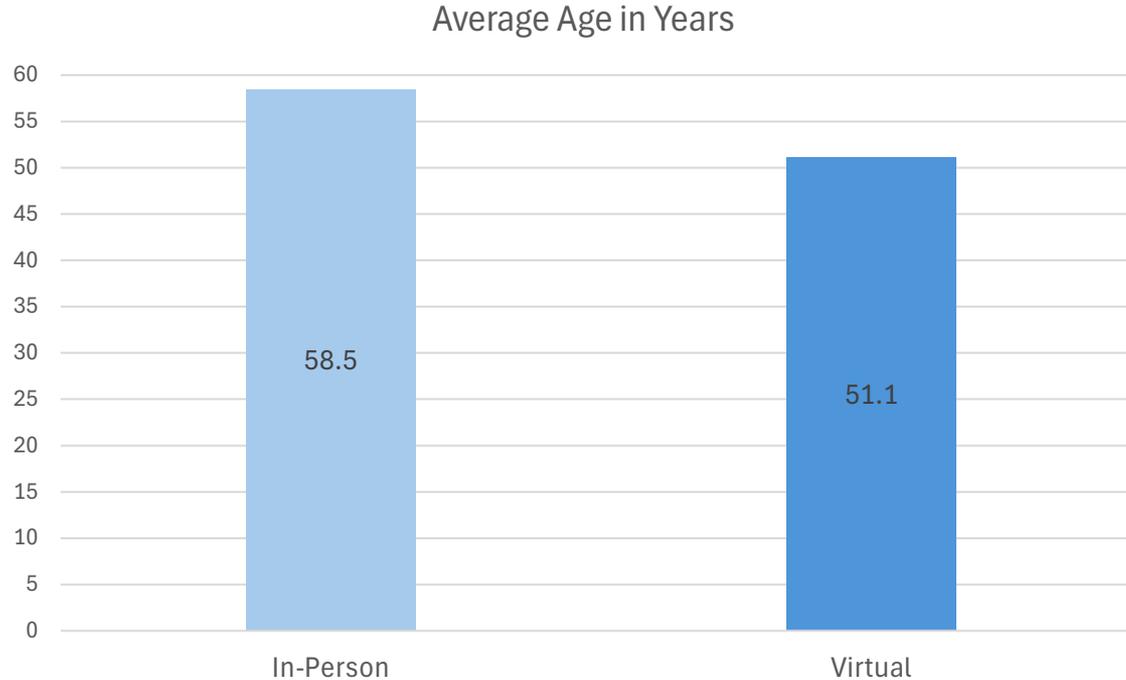
# Completed Visits: Patient Demographics



Source: (Harvey et al., 2026)

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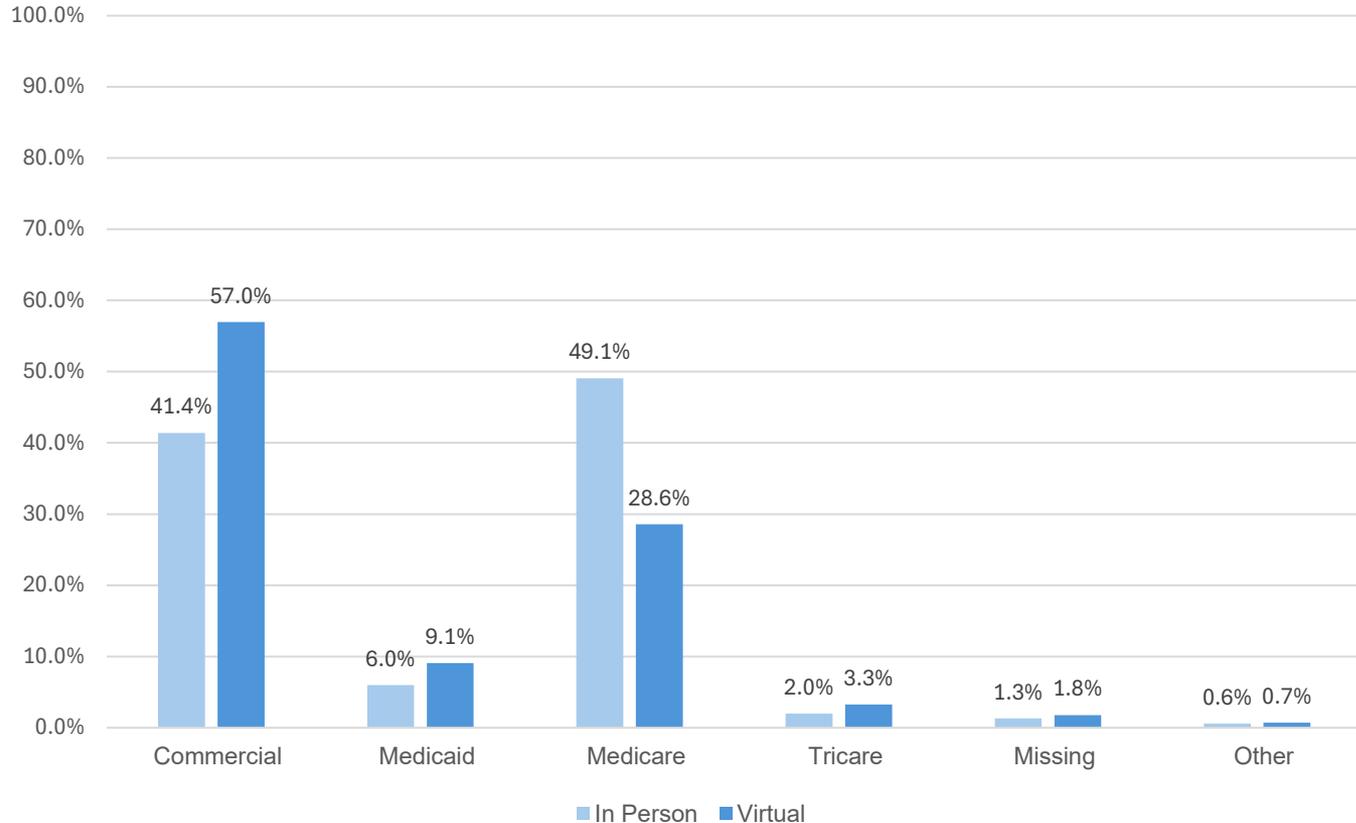
# Completed Visits: Patient Age



Source: (Harvey et al., 2026)

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# Visits by Payer Type

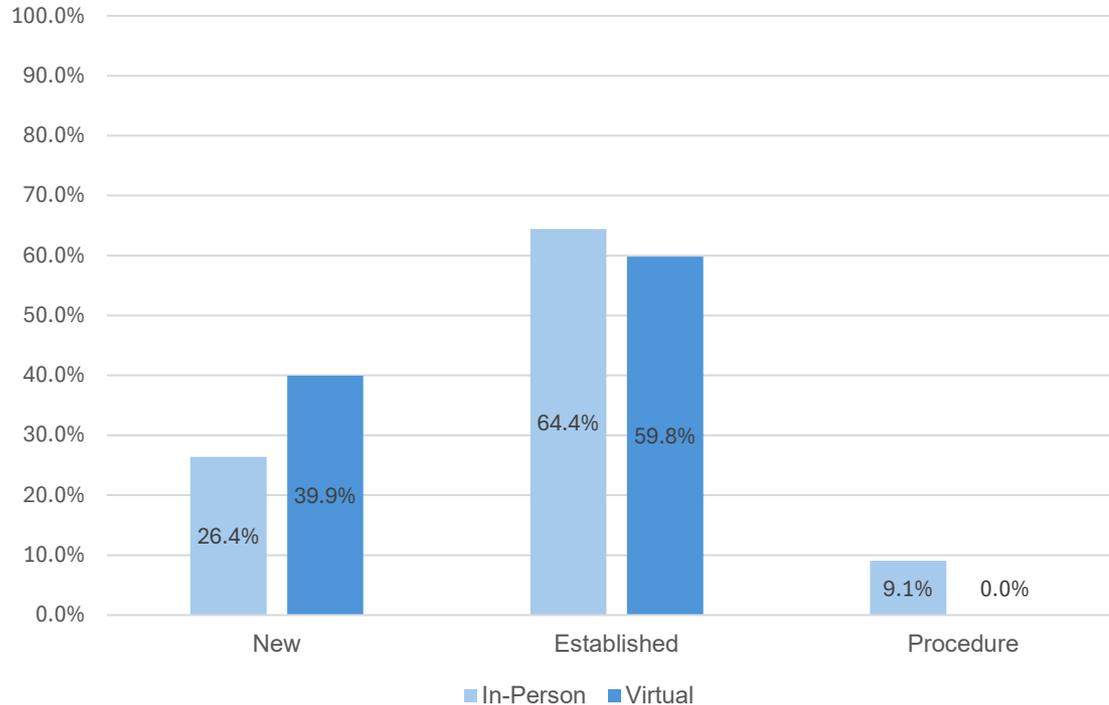


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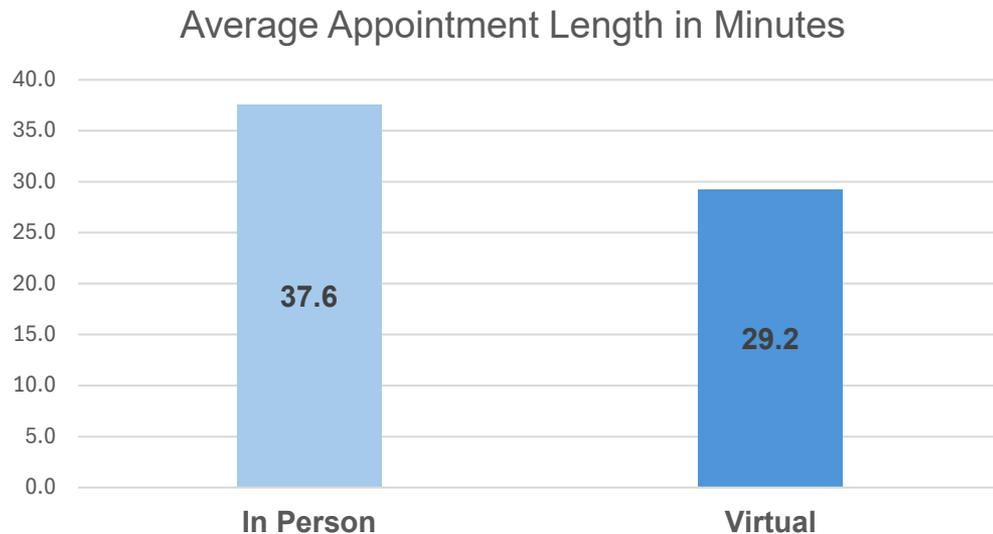
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# New & Returning Patient Visits



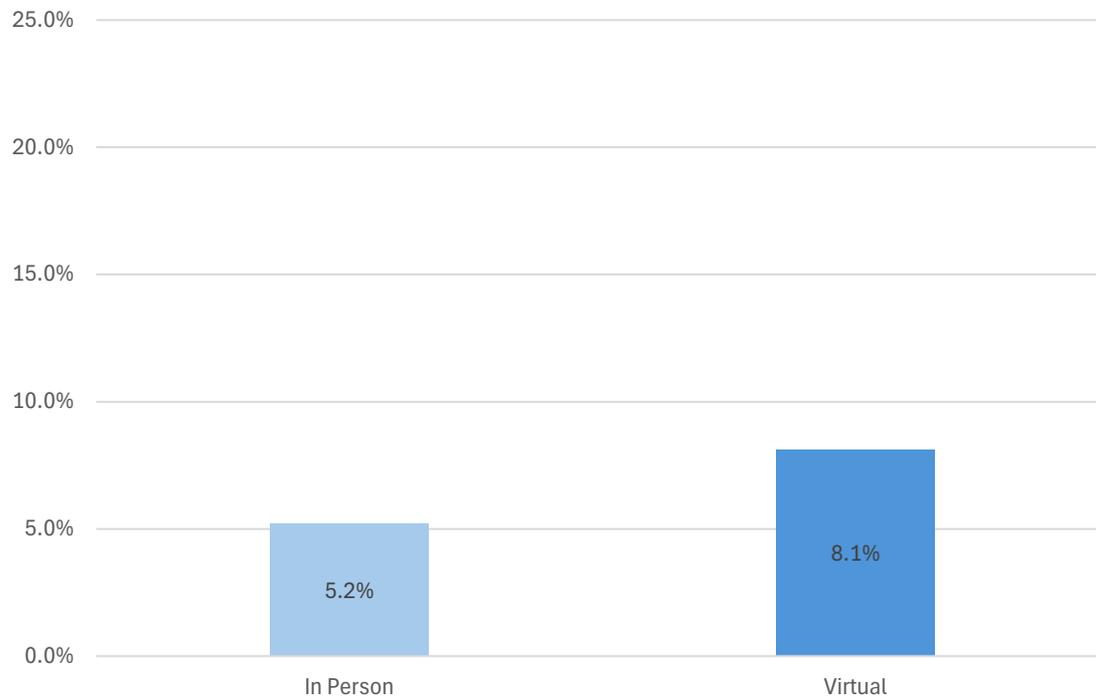
# Visit Time/Intensity

- The top 10 CPT codes included new and established office visits for both in-person & specialty
  - In-person visits had higher rates of high complexity CPT codes
  - In-person CPT codes included injections
  - Virtual visits had higher rates of low or moderate CPT codes



Source: (Harvey et al., 2026)

# Same Day Cancellation Rates



# Challenges and Lessons Learned

# Lessons learned



Hiring out of state/fully remote providers.

Initial fears about quality, accountability & engagement

HR Issue with certain states



EHR/Scheduling interface with how appointments are scheduled for in person vs virtual



Different specialties have different needs (Sleep vs. Dermatology)



Pt acceptance and buy-in (Pulmonology vs Dermatology)



Provider buy-in

# Future Direction & Conclusions

# Future Direction

- Continue to grow multi-specialty model
- Grow specialty access to saturation, as referral patterns are changing
- Continue to advance ancillary services to support specialty access across the state
  - Example: Biopsy locations for dermatology, ultrasound for OBGyn

# Conclusions

## Ross' story...

- Early virtual practice patient seeking rheumatology care
- Activities of daily living were impacted, and he needed to be seen to start treatment
- Was seen via virtual specialty the next day and was immediately impacted, prescribed medications started
- **Ross' story is not unique.**

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Written patient authorization was obtained for the use of identifiable information included in this presentation



To watch Ross' experience with Virtual Specialty Care, scan the QR code.

# Questions?

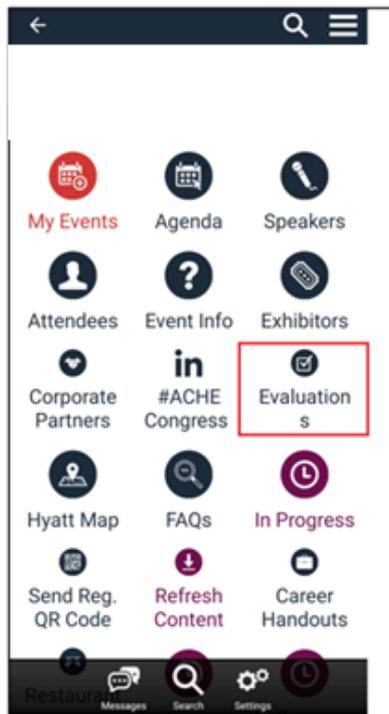
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# Evaluate This Session

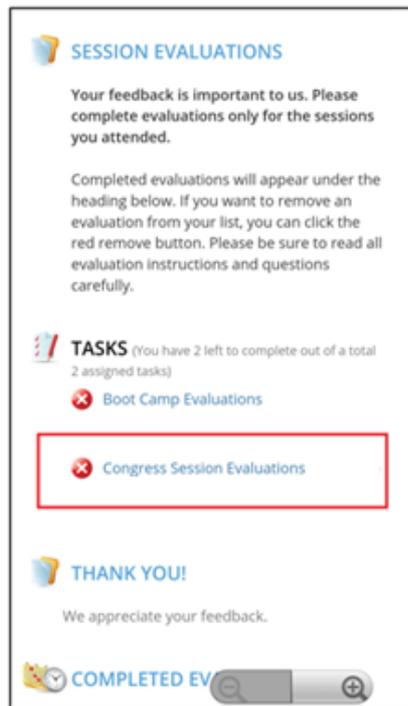
## Step 1

1. Locate the Evaluation button on the home screen in the Congress app



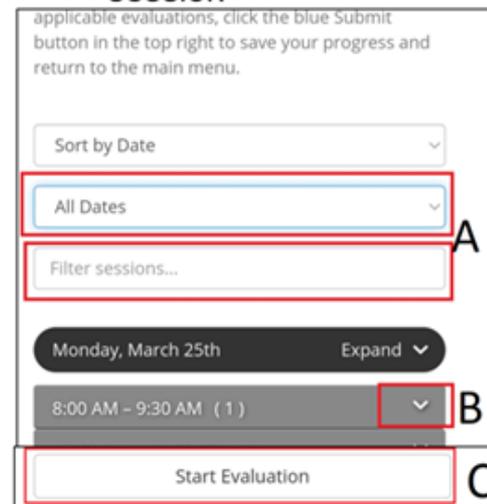
## Step 2

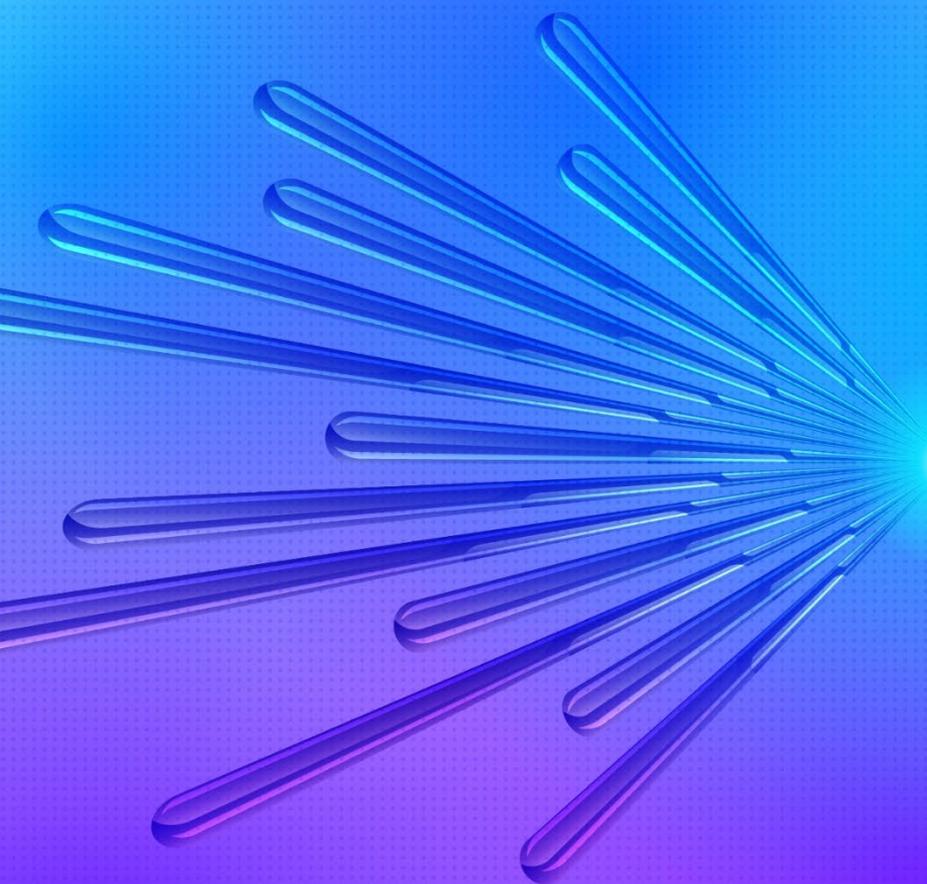
2. Select the second task titled *Congress Session Evaluations*



## Step 3

3. Search for this session by date or title. Then, select the expand arrow on the time of the session. Finally, select Start Evaluation under the title of this session





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