Adapting ITIL for Effective Telehealth Service Management

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Conflict of Interest

Shawn Valenta, RRT, MHA –
Has no real or apparent conflicts of interest to report.

Jillian Harvey, Ph.D –
Has no real or apparent conflicts of interest to report.

Agenda

- Telehealth Background
- Complexities of telehealth service development, implementation, and sustainability
- Ideas for telehealth best practices: The structured framework

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Learning Objectives

- Recognize the complex factors that challenge effective telehealth service development, implementation and sustainability
- Describe the five phases of MUSC's telehealth service management framework
- Identify key elements that contribute to a successful, sustainable telehealth service
- Explain how the RACI Matrix is applied to telehealth service management

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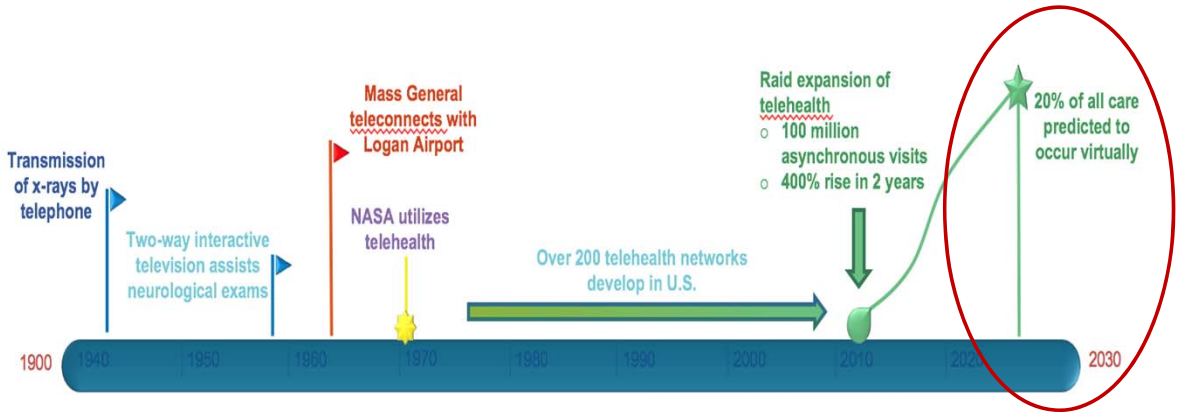
Brief History of Telehealth



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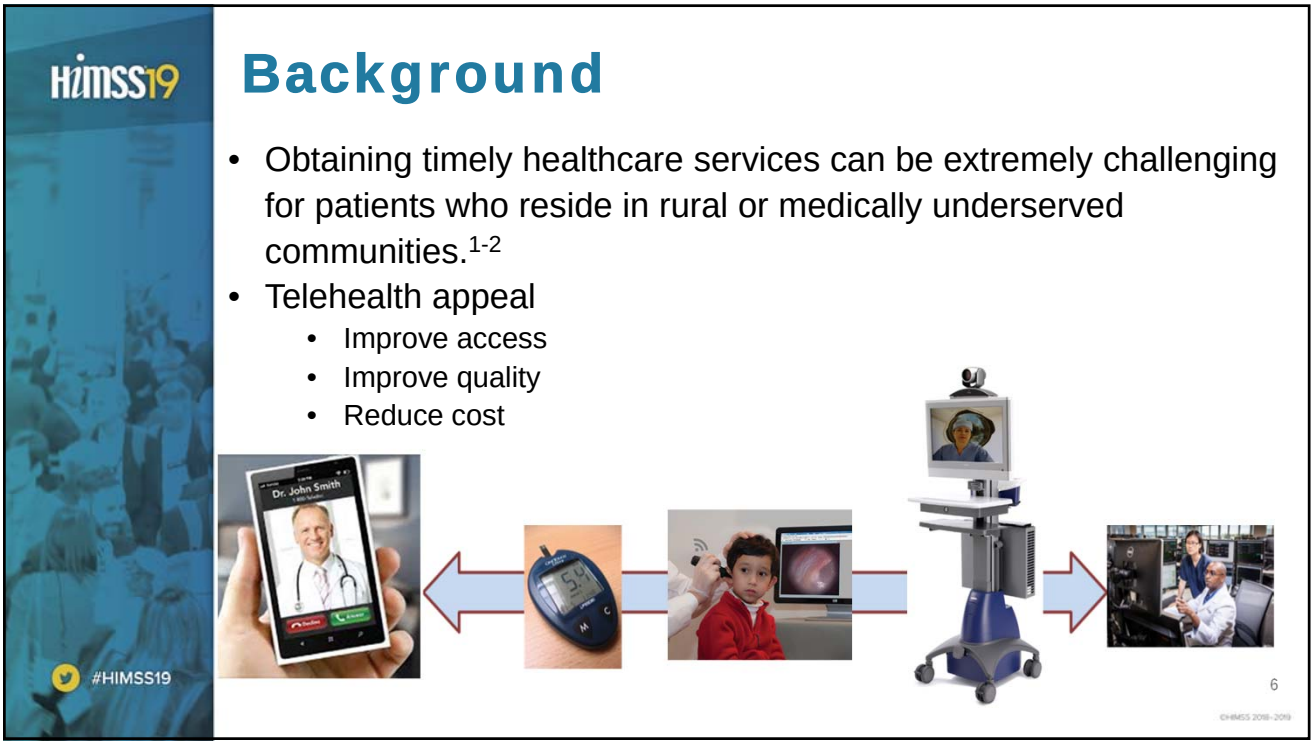

Background

- Obtaining timely healthcare services can be extremely challenging for patients who reside in rural or medically underserved communities.[1-2]
- Telehealth appeal
  - Improve access
  - Improve quality
  - Reduce cost

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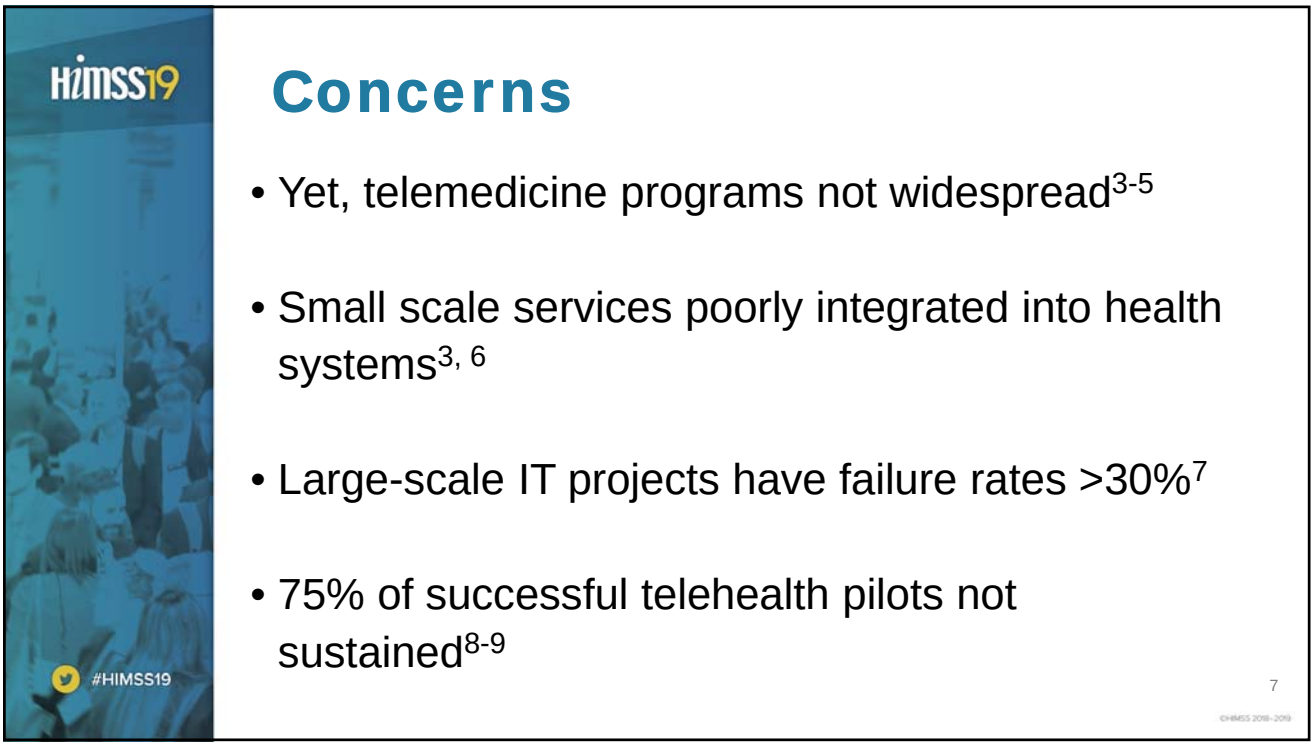
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Concerns
• Yet, telemedicine programs not widespread[3-5]
• Small scale services poorly integrated into health systems[3, 6]
• Large-scale IT projects have failure rates >30%[7]
• 75% of successful telehealth pilots not sustained[8-9]
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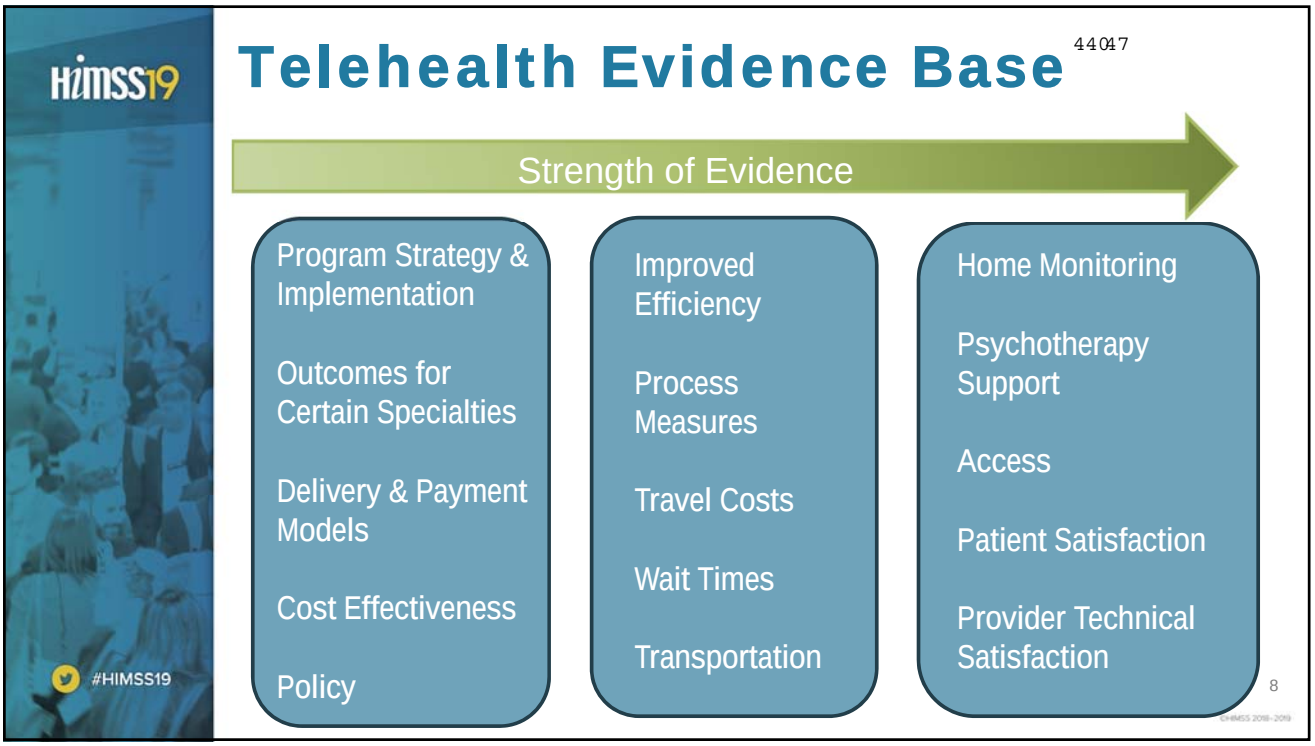
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Telehealth Evidence Base[44017]
Strength of Evidence
Program Strategy & Implementation
Outcomes for Certain Specialties
Delivery & Payment Models
Cost Effectiveness
Policy
Improved Efficiency
Process Measures
Travel Costs
Wait Times
Transportation
Home Monitoring
Psychotherapy Support
Access
Patient Satisfaction
Provider Technical Satisfaction
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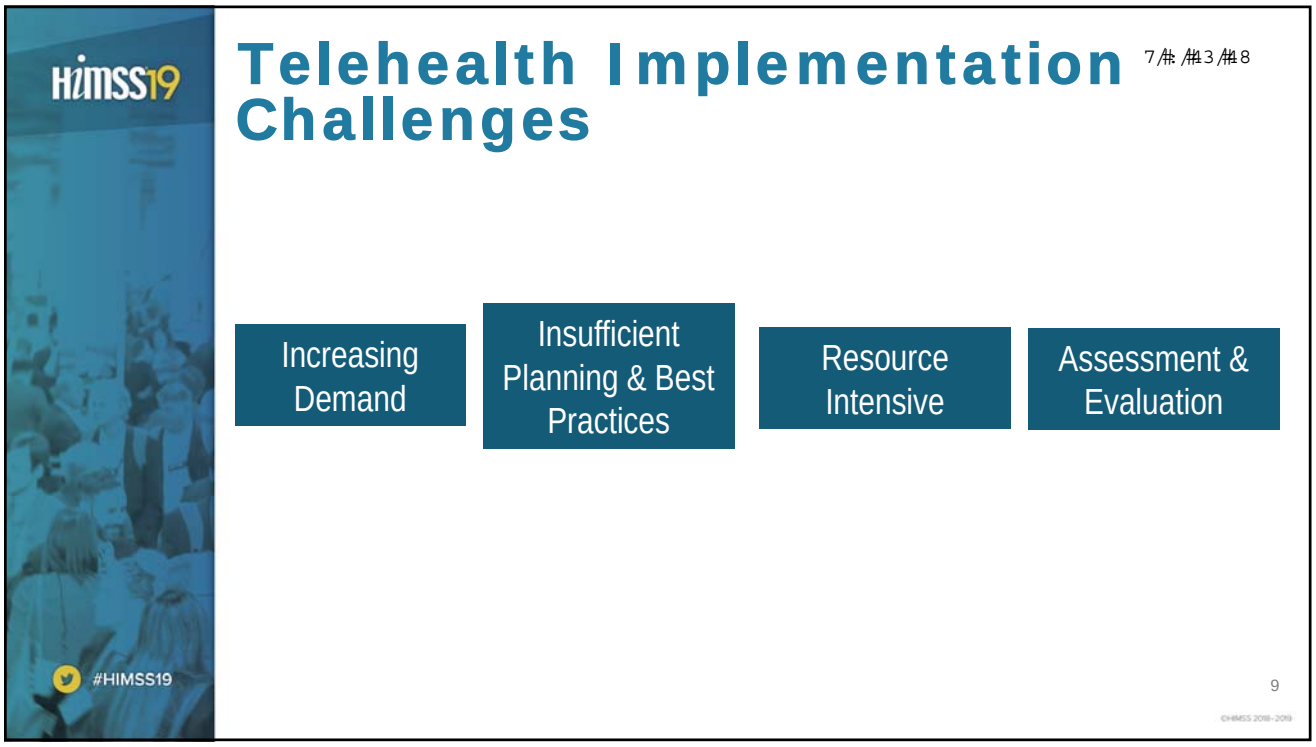
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Telehealth Implementation Challenges
Increasing Demand
Insufficient Planning & Best Practices
Resource Intensive
Assessment & Evaluation
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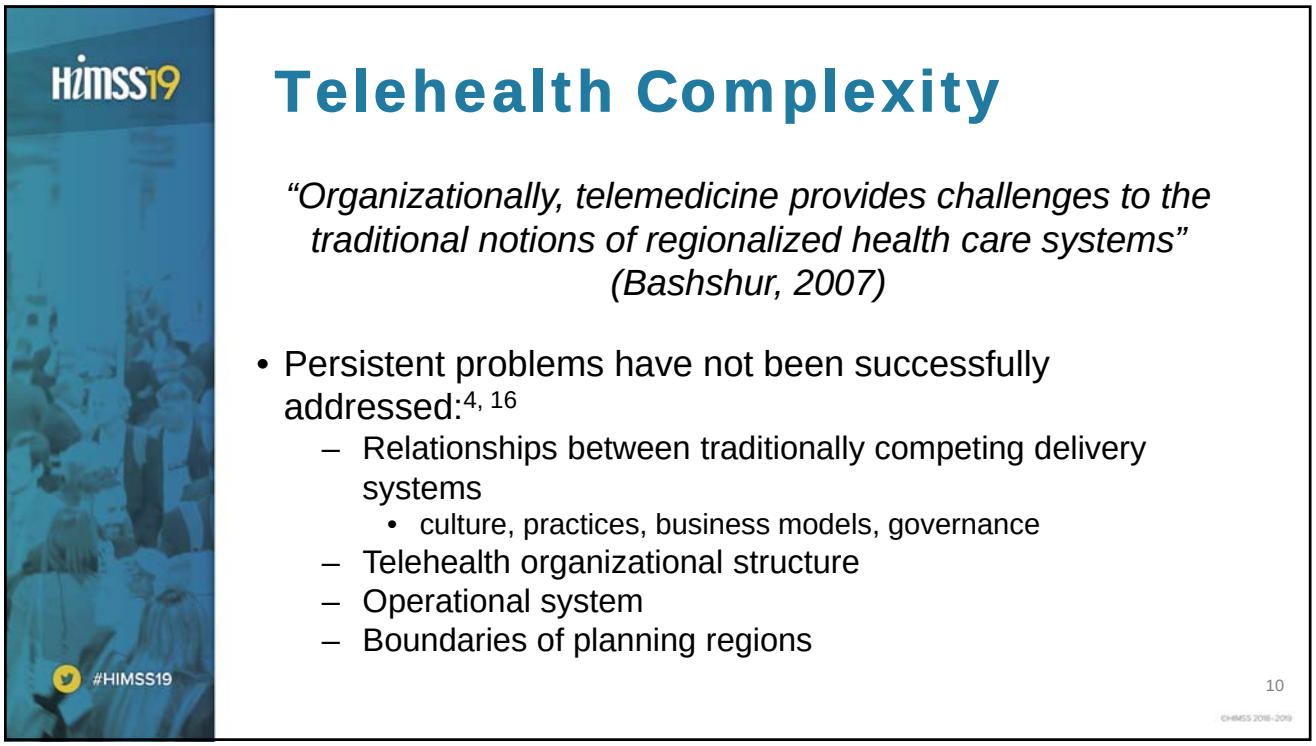
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Telehealth Complexity
"Organizationally, telemedicine provides challenges to the traditional notions of regionalized health care systems" (Bashshur, 2007)
• Persistent problems have not been successfully addressed:[4, 16]
– Relationships between traditionally competing delivery systems
• culture, practices, business models, governance
– Telehealth organizational structure
– Operational system
– Boundaries of planning regions
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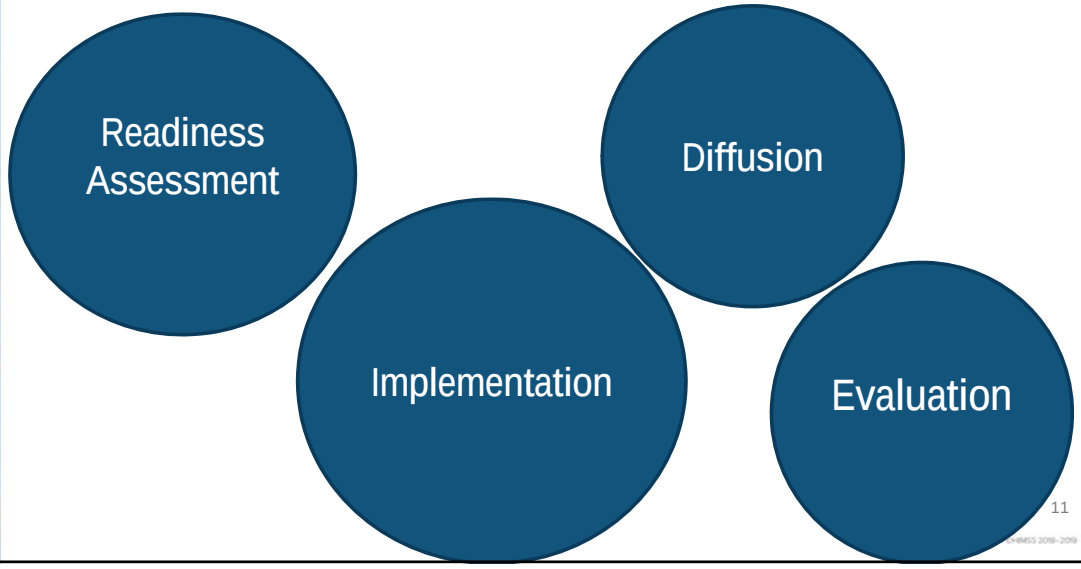
Current telehealth literature includes multiple & separate frameworks related to: [7]



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Factors that Impact Telehealth Success (Liezl van Dyk, 2014)

- Technology
- Organizational Structures
- Change Management
- Economic feasibility
- Societal impacts
- Perceptions
- User-friendliness
- Evaluation and Evidence
- Legislation
- Policy and governance

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Sustainable Telemedicine: Designing and Building Infrastructure to Support a Comprehensive Telemedicine Practice (Mayo Clinic Experience)

Analysis:

1. "Strategy…not clearly articulated"; priorities and scope not maintained
2. Services created from different practice areas resulted in variation, creating further challenges in providing operational support across the enterprise
3. Numerous stakeholders and competing priorities negatively impacted service development
4. Fragmented technology; no clear operational procedures

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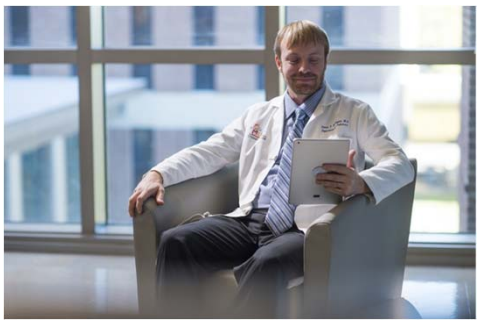
MUSC Center for Telehealth

- 13+ years of telehealth experience
- > 70 unique telehealth services
- A HRSA-designated National Telehealth Center of Excellence
- Coordinating entity of the South Carolina Telehealth Alliance (SCTA)



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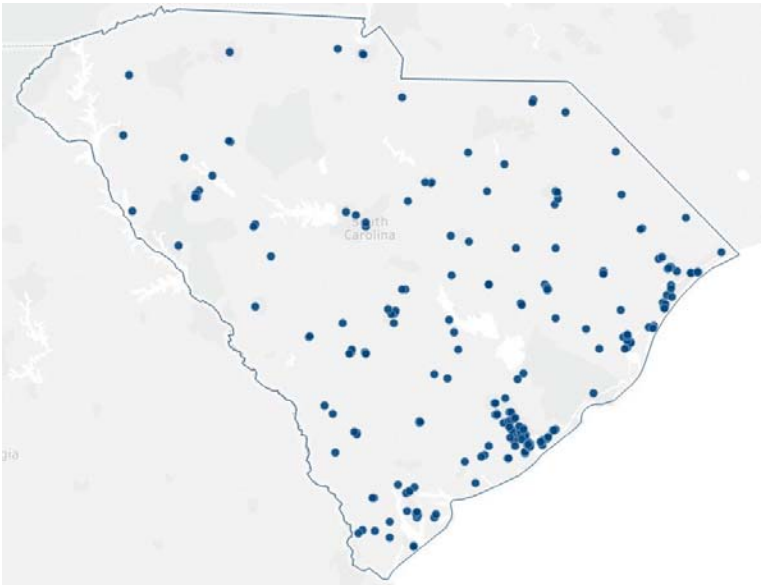
National Telehealth Center of Excellence

SOUTH CAROLINA Telehealth ALLIANCE

Over 200 Connected Sites
(>90% are non-MUSC)



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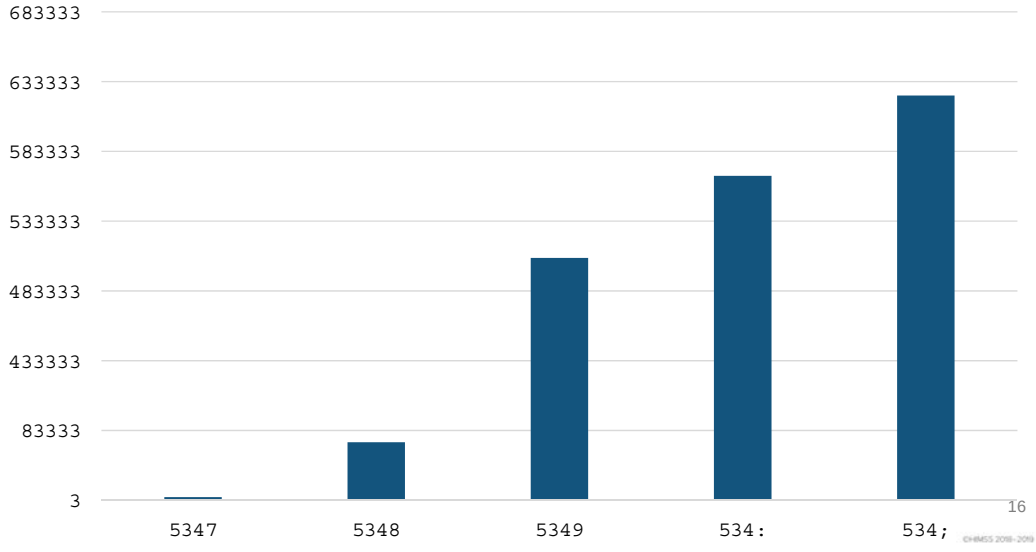
Volume of MUSC Telehealth Interactions



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Evolution of MUSC's Telehealth Services

- Created a lot of pieces to service development (e.g. checklists)
- Experienced many growing pains
- "Concentration risk"

2005
Maternal Fetal Telemedicine

2008
Telestroke

2009
ICU
Telepsych

2013
State telehealth funding infused by SC Legislature

2014-Present
MUSC Center for Telehealth charged with accelerated growth of telehealth services

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Initial MUSC Telehealth Goal

"Everything we do within our walls, we should do outside our walls"

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Case Study 1: Inpatient Pediatric GI

- Single provider
- 'Customized' workflow
  - Not consistent across comparable services
  - Not mapped out
  - Confusion re: roles/responsibilities
- Poor communication with partner sites
- Inadequate training at partner sites
- No formalized evaluation plan

Low utilization
Low satisfaction

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Case Study 2: Outpatient Transplant Nephrology

- Lack of provider champion engagement
- Workflow
  - Everything to everybody = multiple changes to workflow
  - Not formally mapped out
  - Confusion re: roles/responsibilities

- Service goal a moving target = delay and frustration
- No formalized governance
  - Response to partner site & internal providers = multiple tech change
- High provider/staff turnover
- No pro forma & unrealistic volume expectations

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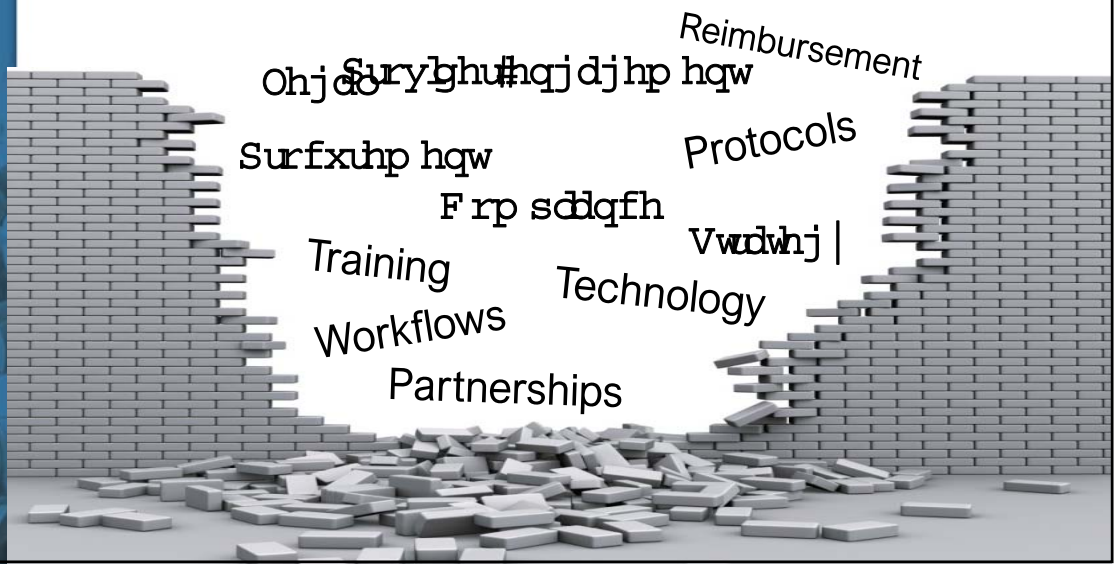
Processes to be Navigated in Telehealth Service Development



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Discovered ITIL
(Information Technology Infrastructure Library)

- Created by UK in 1980's
- Detailed practices for IT service management
- Aligns services with business needs
- Used worldwide:
  - US Governments (States, Navy, Army)
  - Industry (Disney, Honda, Visa)

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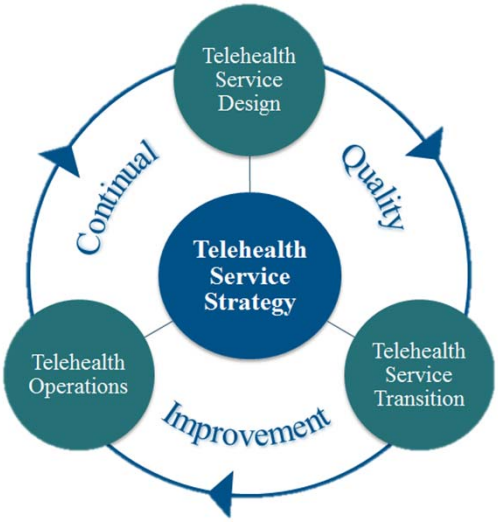
Adapted the Idea of ITIL to Create the Telehealth Service Implementation Model (T-SIM™)

"Telehealth is a clinical service delivered over an IT service"

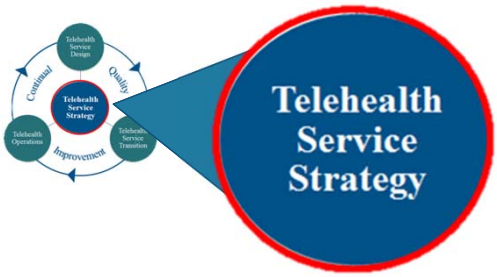
- Provided terminology and a standard framework
- Highlighted strengths & weaknesses

Telehealth Service Implementation Model (T-SIM™)



Telehealth Service Strategy

- Defines scope of the service
  - Condition(s)
  - Location of patients
  - Type of providers
  - **What problem is being solved?**



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Thinking beyond "replicating care over distance"

MUSC Mission statement: **"Telehealth for efficient, effective care"**

Assess the impact on stakeholders:

1) Patients
2) Referring providers
3) Consulting providers
4) Payers
5) Health system (as a whole)

Prioritize services that:
- Add efficiency to care teams
- Add value to care over the continuum
- Mitigate time and distance barriers to care

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Telehealth Standardized Scoring Tool

Support of implementation
- Physician champion
- Provider capacity
- Strategic alignment

Potential impact
- Quality
- Cost
- Access to care

Growth opportunity
- Market size
- Saturation
- Demand

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Telehealth Cardinal Sins

Setting up a telehealth program:

1. without provider engagement & availability
2. without a clear path from patient to technology
3. without an evaluation plan
4. untethered from organizational strategy

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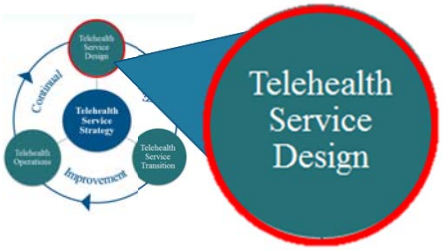
Telehealth Service Design

- Implement a **common architecture**
- Understand each "site of care" has different rules
- Draft clinical and operational protocols
- Customize test scripts
- Identify KPI's
- Navigate compliance, legal, credentialing and EHR issues and processes



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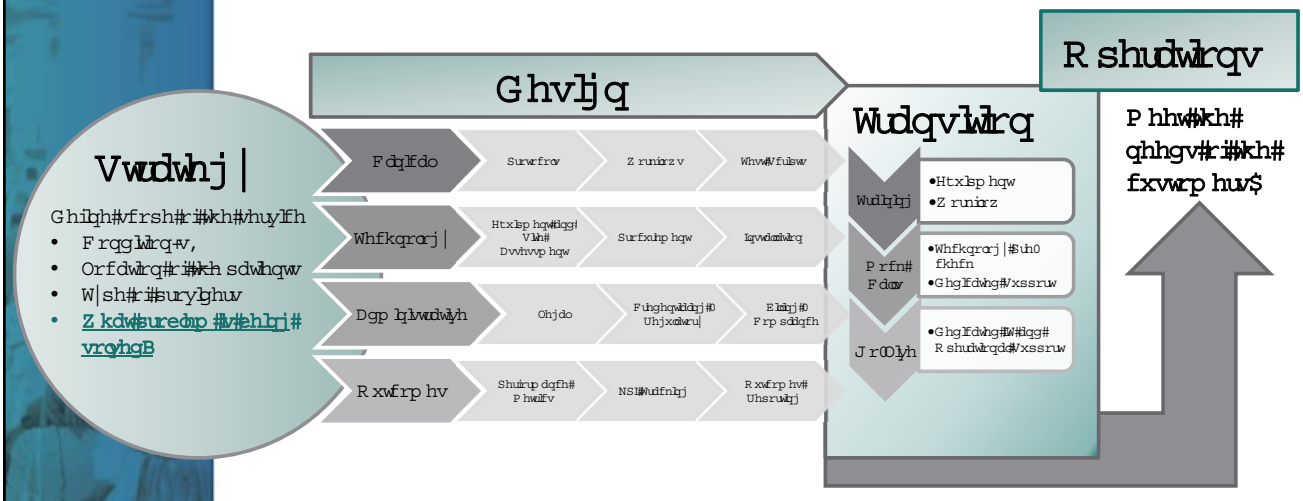
Design Coordination

– maintain **a common architecture** for all activities and processes



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RACI matrix… through the common architecture

Responsible	• The person who actually carries out the process or task assignment • Responsible to get the job done
Accountable	• The person who is ultimately accountable for process or task being completed appropriately • Responsible person(s) are accountable to this person
Consulted	• People who are not directly involved with carrying out the task, but who are consulted • May be stakeholder or subject matter expert
Informed	• Those who receive output from the process or task, or who have a need to stay informed

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Telehealth Service Transition

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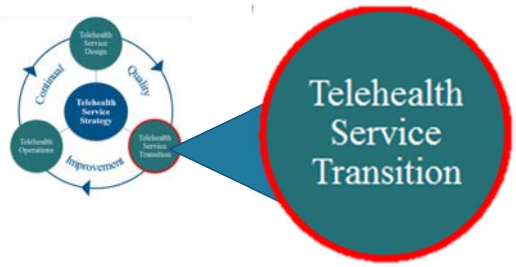
Telehealth Service Transition

*Movement from **test to go-live***

- Training – tech and workflow
- Mock calls (alpha – internal testing, beta – partner site testing)



Key Processes:
- **Transition Planning & Support**
- **Data & Knowledge Management**
- **Change Management**

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Telehealth Service Operations

- High quality, reliable services
- Processes to manage **"incidents"**
  - any unplanned event that has a negative impact on normal operations

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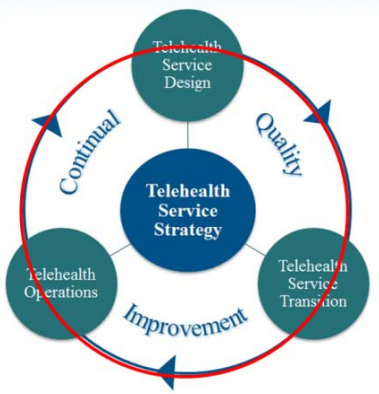
Continual Quality Improvement

- Striving for high-reliability
  - Preoccupation with failure
  - Reluctance to simplify interpretations
  - Sensitivity to operations
  - Commitment to resilience
  - Deference to expertise



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Summation

- Telehealth journey is complex
- Success is achievable
- Structured implementation framework is major catalyst

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Questions

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***Please complete online session evaluation**

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