MaineHealth Telehealth: A Systematic Approach

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Disclosures

No relevant financial or nonfinancial relationships to disclose

MaineHealth System Overview

- $2.4 billion not-for-profit family of high-quality hospitals, providers and healthcare organizations
- 18,000 employees across 12 member organizations and 12 counties in Maine and New Hampshire
- In 2015, the MaineHealth system provided more than $399 million in community health programs or services without reimbursement or other compensation, including over $40 million in uncompensated care.
- Ranked among the nation's top 100 integrated healthcare delivery networks
- Public Health initiatives integrated into system

Nationally Recognized for Quality

WORKING TOGETHER

SO OUR COMMUNITIES ARE THE HEALTHIEST IN AMERICA

As Northern New England's largest integrated health system,
we work together to deliver high-quality, cost-effective health care for the communities we serve.

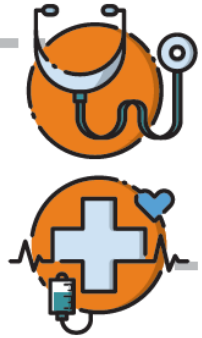
18,939 EMPLOYEES

8 Local Hospital Systems
1 Behavioral Health Network
1 Home Health Care Agency
1 Accountable Care Organization
1 Laboratory

3,845 Registered Nurses

1,245 Certified Nursing Assistants

70 Licensed Practical Nurses



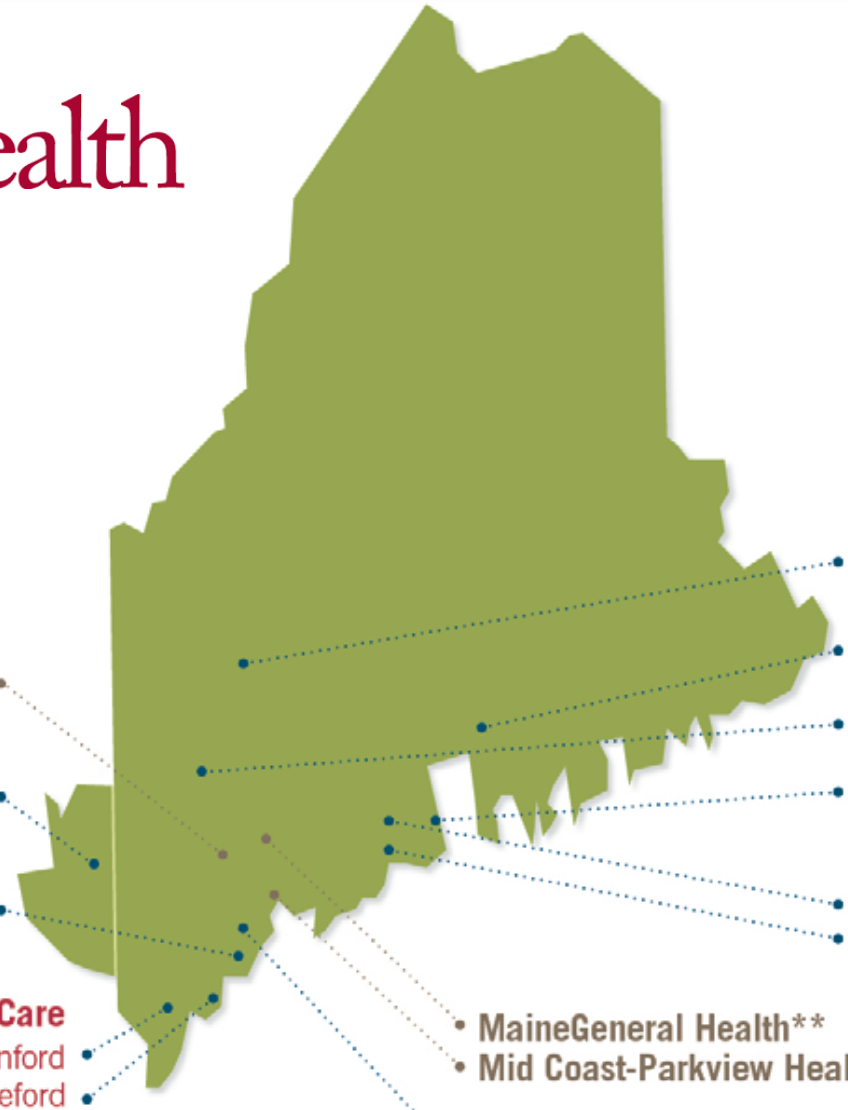
963 Physicians

540 Advanced Practice Providers

AS OF 3/31/18

MaineHealth

MaineHealth



Franklin Community Health Network

Waldo County General Hospital

Western Maine Health

Pen Bay Medical Center

LincolnHealth
Miles Campus
St. Andrews Campus

MaineGeneral Health**

Mid Coast-Parkview Health**

Maine Medical Center

Synernet

Maine Behavioral Healthcare

NorDx

MaineHealth Accountable Care Organization*

New England Rehabilitation Hospital of Portland**

St. Mary's Health System**

Memorial Hospital

MaineHealth Care at Home

Southern Maine Health Care
SMHC Medical Center – Sanford
SMHC Medical Center – Biddeford

*Part of the MaineHealth family

**Affiliates

Telehealth

Advisory Board

Young

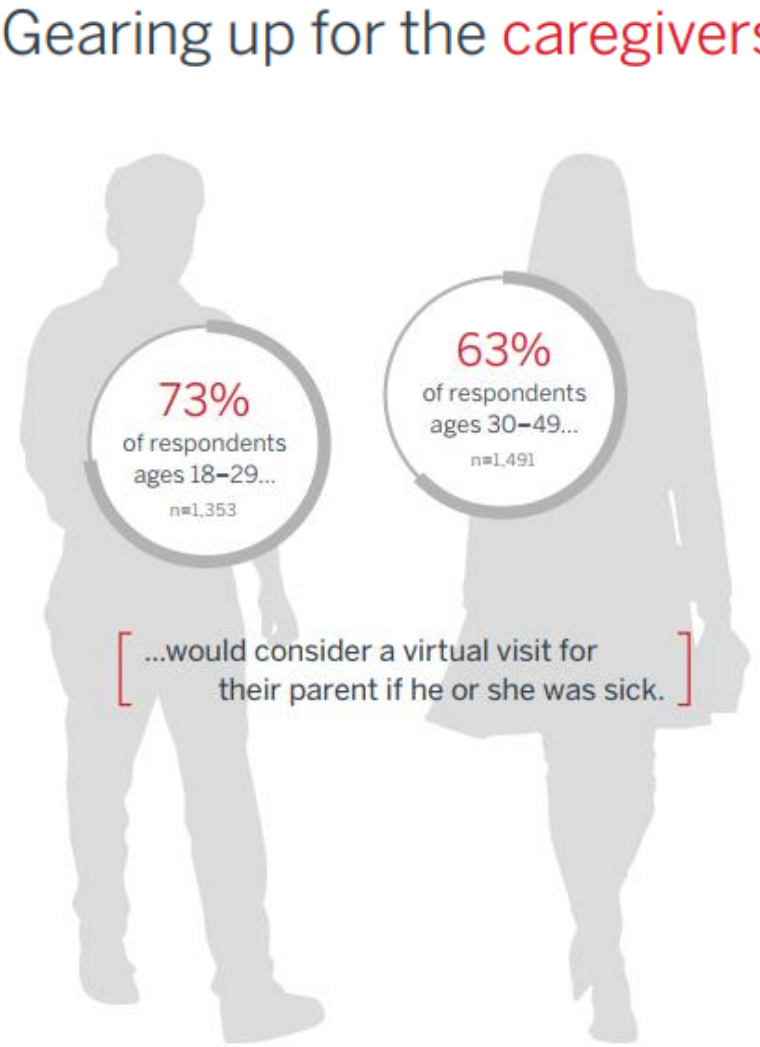
Percentage Who Have Used a Virtual Visit at Least Once

Age	18–29	30–49	50–64	65+
	24.6%	34.3%	3.7%	2.6%

Medicare's reimbursement restrictions limit virtual visit availability for patients ages 65+. The low utilization rate for those ages 50 to 64 suggests the age divide here is likely generational as well as a product of insurance coverage, though.

1) Kokalitcheva K, "More Than Half of Kaiser Permanente's Patient Visits Are Done Virtually," *Fortune*, Oct. 2016.
2) National Business Group on Health.
3) "Closing the Telehealth Gap," *Avizia*, www.avizia.com/research-report-closing-telehealth-gap/.

Advisory Board



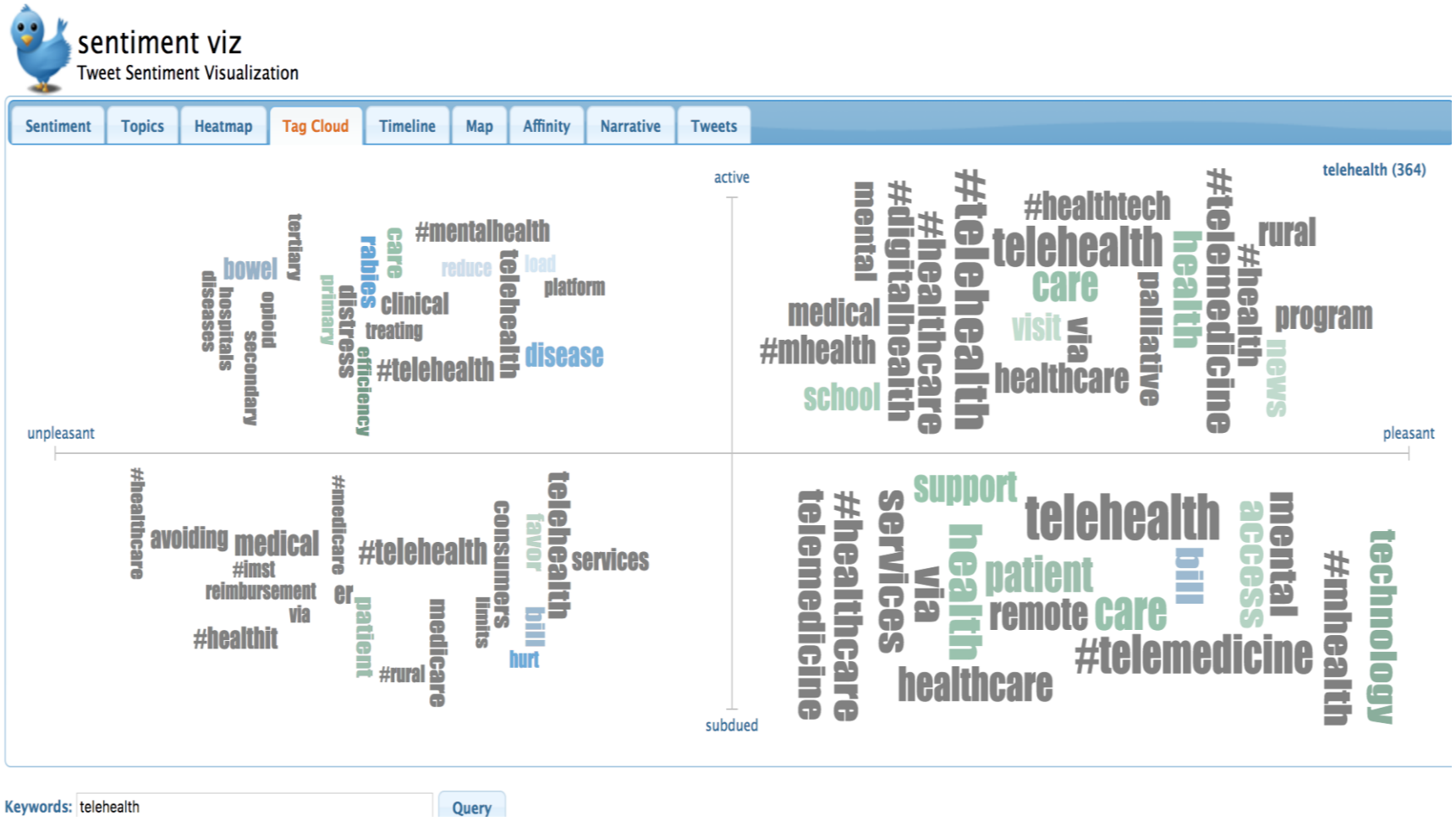
June 20, 2017

The Growth of Telehealth

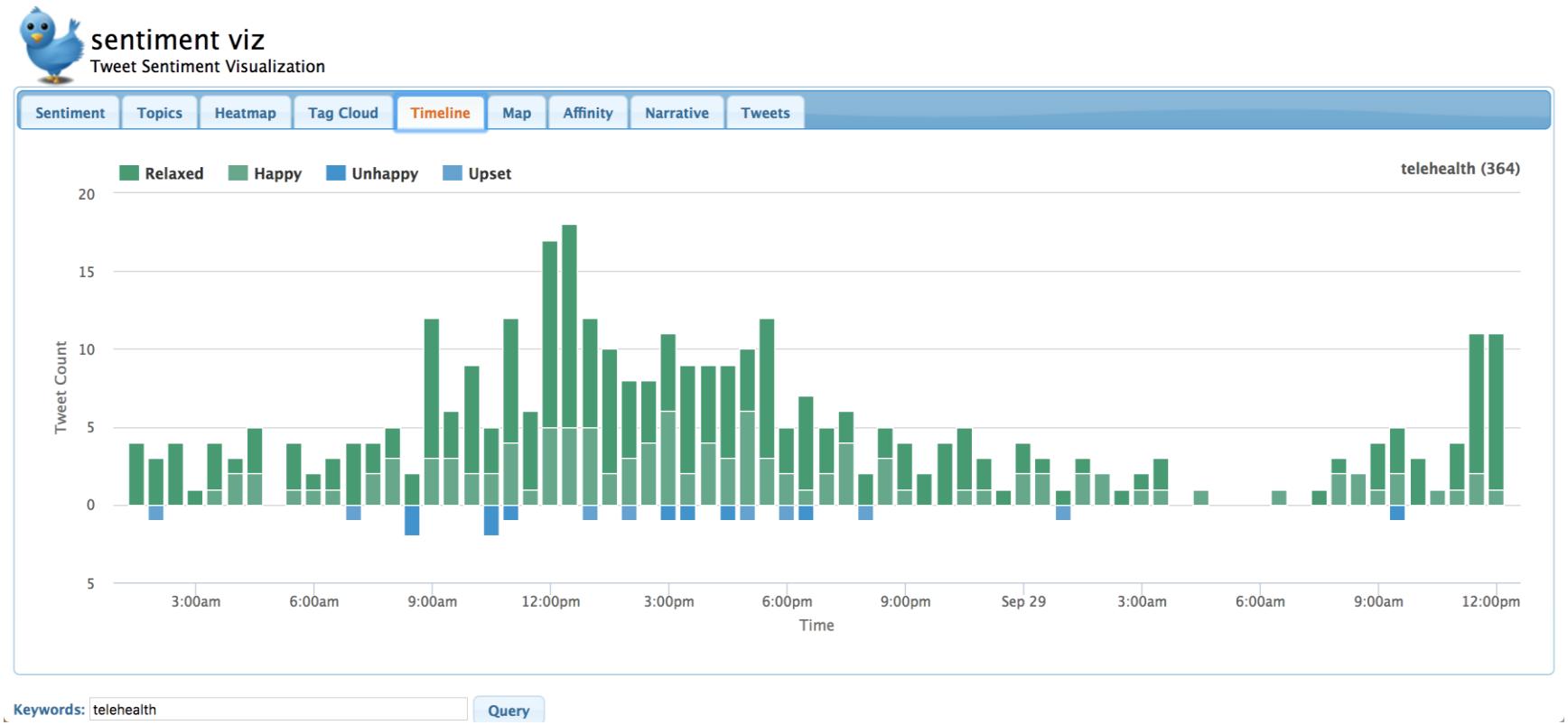
- 2017 Market Valuation = $29.6 Billion
- Expected Growth rate = +19% from 2017-2022

Growth Drivers:

Telehealth in Social Media



Telehealth in Social Media



Timeline. Tweets are drawn in a bar chart to show the number of tweets posted at different times. Pleasant tweets are shown in green on the top of the chart, and unpleasant tweets are shown in blue on the bottom.

MaineHealth Telehealth (MHT)

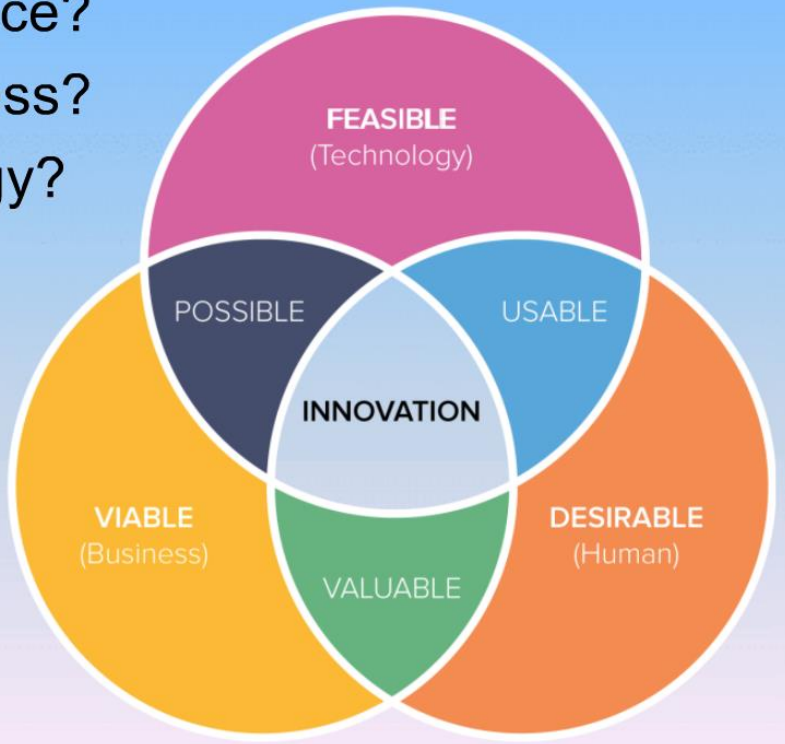
Improve Access to Care

Anywhere, Anytime

Understanding Innovation

- Innovation in an organization lies at the intersection of the answer to three significant questions:

- What is viable in the marketplace?
- What is desirable to the business?
- What is feasible with technology?



Viability in Market - Reimbursement

American Telemedicine Association

50 State Telemedicine Gaps Analysis: Coverage and Reimbursement

February 2017

Telemedicine in Maine

PARITY:	
Private Insurance	A
Medicaid[121]	A
State Employee Health Plan	A
MEDICAID SERVICE COVERAGE & CONDITIONS OF PAYMENT:	
Patient Setting	A
Eligible Technologies	B
Distance or Geography Restrictions	A
Eligible Providers	A
Physician-provided Services	A
Mental/behavioral Health Services	A
Rehabilitation	A
Home Health	B
Informed Consent	F
Telepresenter	A
INNOVATIVE PAYMENT OR SERVICE DELIVERY MODELS:	
State-wide Network[122]	✔
Medicaid Managed Care	
Medicare-Medicaid Dual Eligibles	
Health Home	✔
HCBS Waiver	
Corrections	✔
Other	

GAPS:

Progress

- ME Medicaid published new rules which include originating site fees, and coverage for home RPM and interprofessional services provided by a consultative physician.[118]

Private Insurance

- ME's parity law for Medicaid and private insurance was enacted in 2009 and also includes coverage for state employee health plans.[119]

Medicaid

- No limits on patient setting, covered services, or eligible providers.
- Coverage for remote patient monitoring, interactive audio-video as well as audio-only under certain circumstances.
- New rules require the provider to obtain a written informed consent.

Innovation

- Maine Telemedicine Services is an open and interoperable network that offers clinical, educational, and administrative services via telemedicine across the state.
- Health home proposal was approved by CMS. Model includes support for care management/coordination activities. The health home practice and community care team will have the option of utilizing technology conferencing tools including audio, video and/or web deployed solutions to support care management/coordination activities.[120]

MHT Organizational Design

- Telehealth embedded as a system-level priority in 2015 three-year strategic plan
- Telehealth department reports up to MaineHealth CMO
  - Operational Team includes:
    - » 1 Telehealth Director
    - » 3 Program Managers
    - » 1 Admin
  - We are also supported by a 4 person IT team
- Supports efforts of hospital and system service lines, providers, and our ACO
  - Benefits:
    - » Removes barriers created by information silos
    - » Builds relationships across departments
    - » Allows patients to have a seamless healthcare experience

Program Evolution Overview

Past State
Entrepreneurial Model
Small Team
Reactive Strategy
Focus on Proving Concept

Result: A few successful programs running independently

Present State
Startup Business Model
Growing Team
Org. Aligned Strategy
Focus on Standardization

Result: Defined program strategy; Standardized approach

Future State
Full System Integration
Large Department
All Specialty, Location strategy
Focus on Improving Care

Result: Telehealth available for all specialties in all sites and at home; Outcome metrics avail.

Setting Down the Road

1. Define Program Strategy
    - Where did you come from?
    - Where are you now?
    - Where do you going?
2. Develop Operating Procedures
    - Who are your stakeholders?
    - What needs to get done?
    - What does "ready" look like?
3. Start Implementing!
4. Check for reactions
    - Provider Experience
    - Patient Experience

1. Define Program Strategy

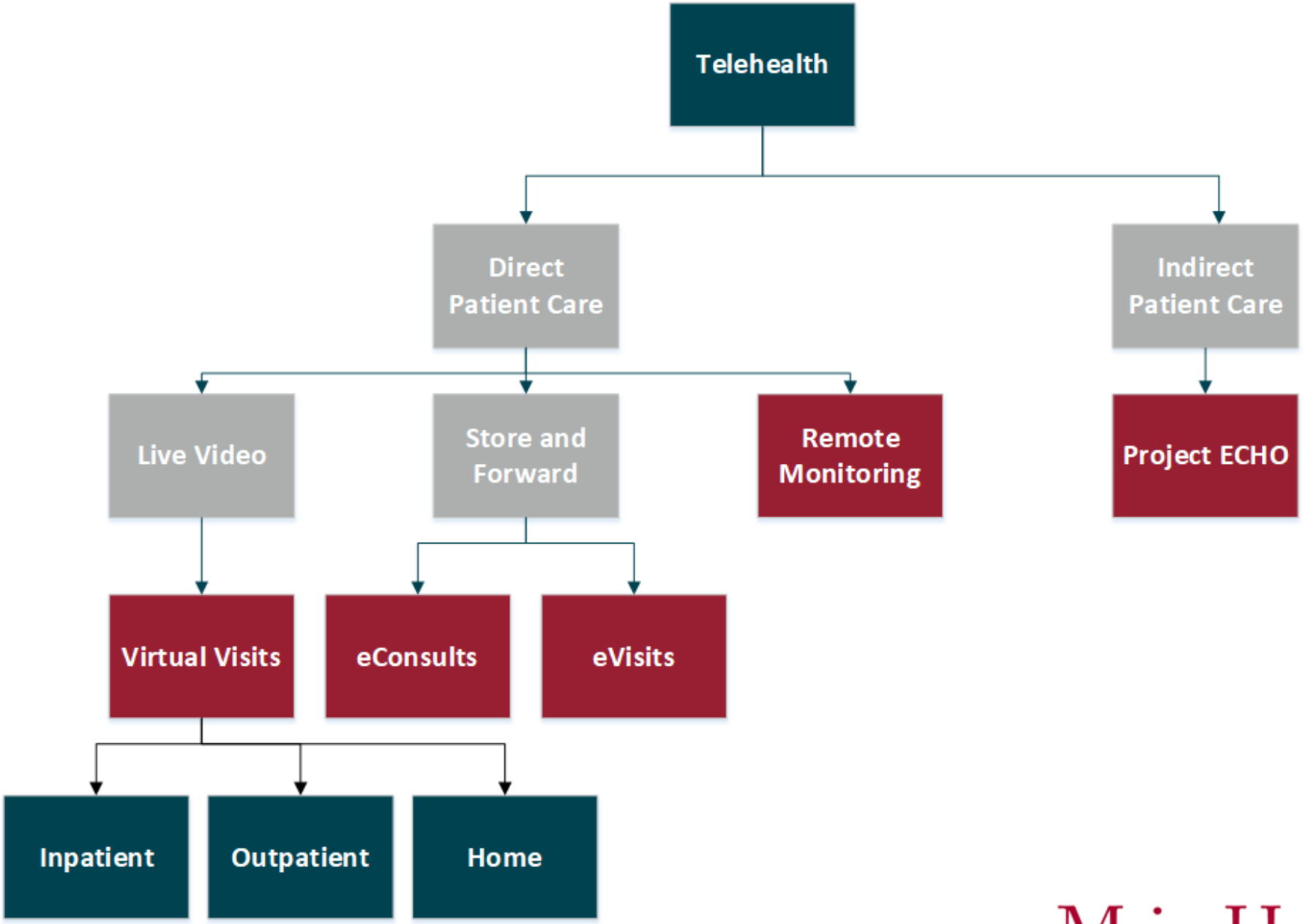
Telehealth Strategic Planning

"… a virtual care program (or set of programs) should not be positioned as a standalone strategy. Rather, it's a capability that can enable strategy, and is often best used as a stepping stone for achieving a larger goal. So **it is important to first focus on the strategic goals the organization is trying to meet**, and then map out how virtual visits can efficiently enable those goals to be met."

(Sprung, 2016)

MaineHealth Telehealth Purpose Statement:

The purpose of MaineHealth Telehealth is to be the innovation hub for patient-centered healthcare delivery through the integration of advanced telemedicine technology. We aim to optimize the patient and provider experience by expanding access to high-quality, affordable healthcare.

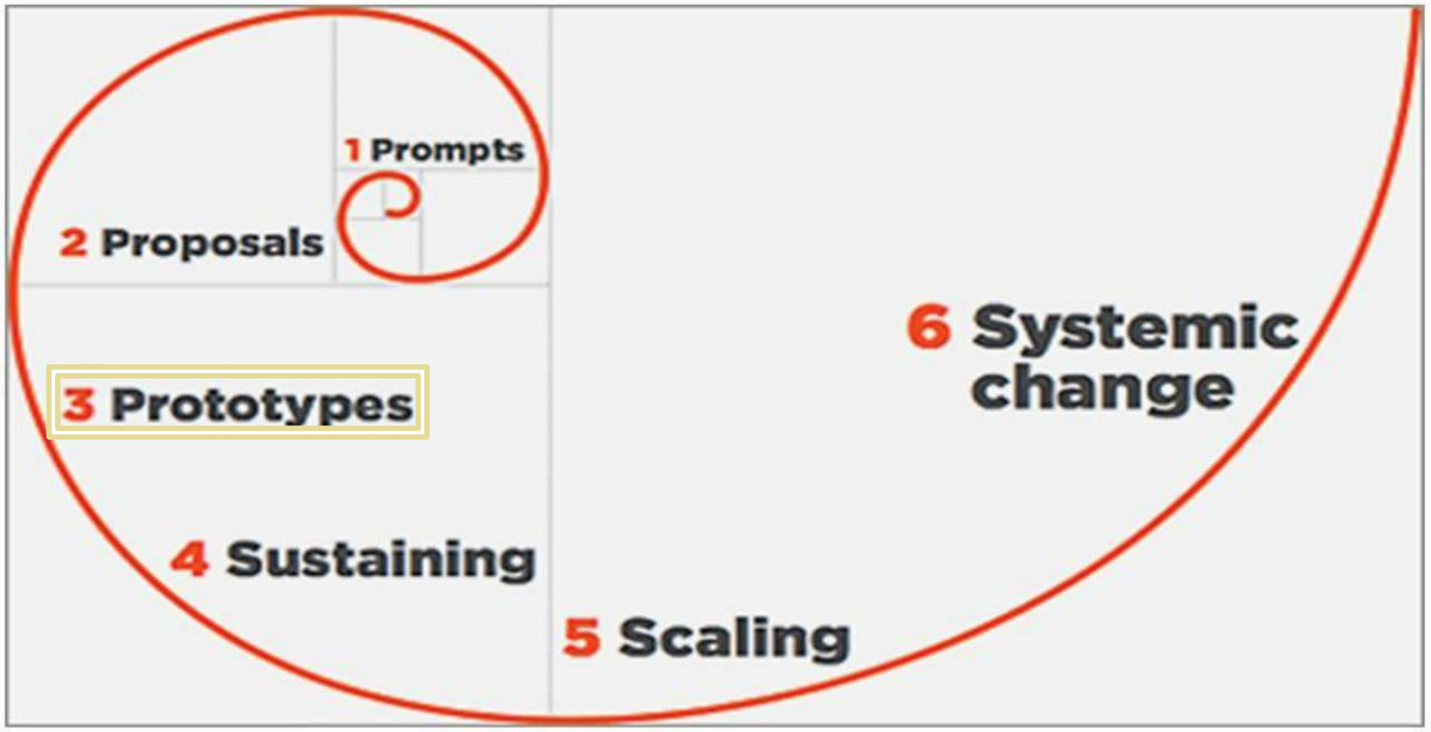


MaineHealth

Where did we come from?

The Six Stages of Innovation

Successful innovation passes through six stages:



(Taken from p12-13 in Murray, R; Caulier-Grice, J and Mulgan, G (2010) *The Open Book of Social Innovation.* NESTA)

Nesta

Telehealth at MaineHealth: A Timeline

TeleGenetics
First Telehealth Program in the MaineHealth system

2006

Speech Therapy
Mike Towey leads the way at Waldo with a video-based therapy program

2007

TelePsychiatry
Jim Wolak, MD begins offering patient consults to Stephen's Memorial Hospital, LincolnHealth, and Waldo County General Hospital

2013

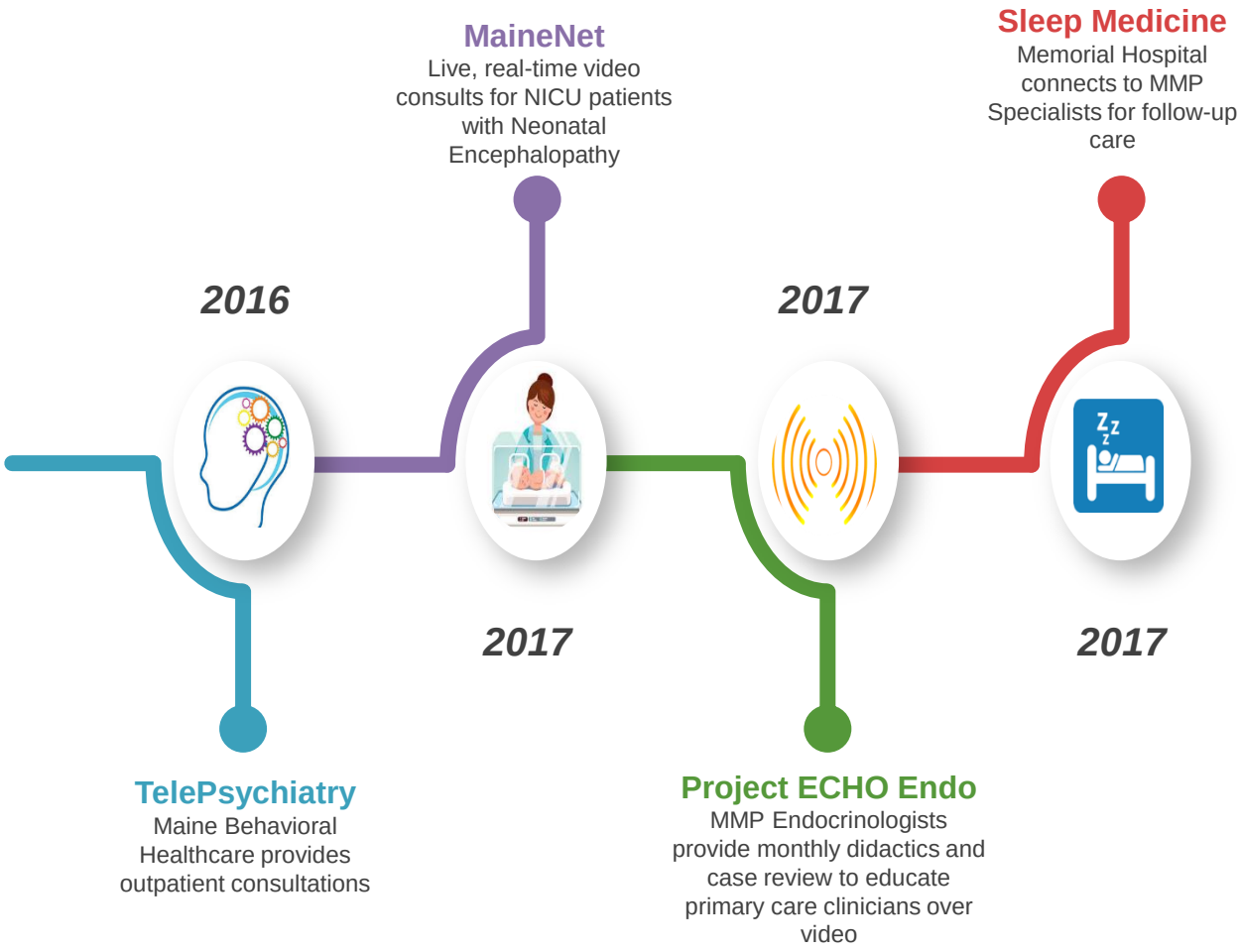
TelePsychiatry
St. Mary's begins providing services to Southern Maine Emergency Department

2015

TeleStroke
Saving lives of patients using video to connect to stroke specialists

2015

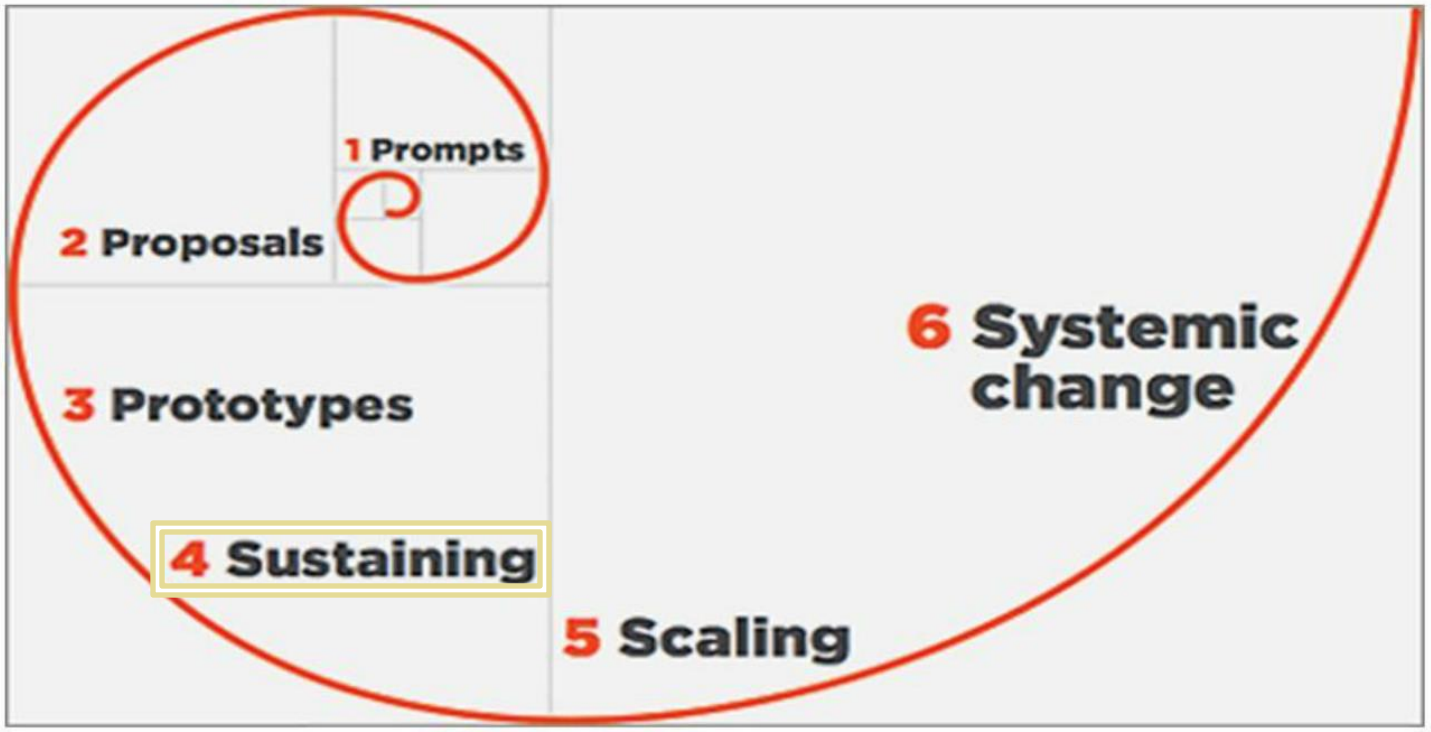
Telehealth at MaineHealth: A Timeline



Where are we now?

The Six Stages of Innovation

Successful innovation passes through six stages:



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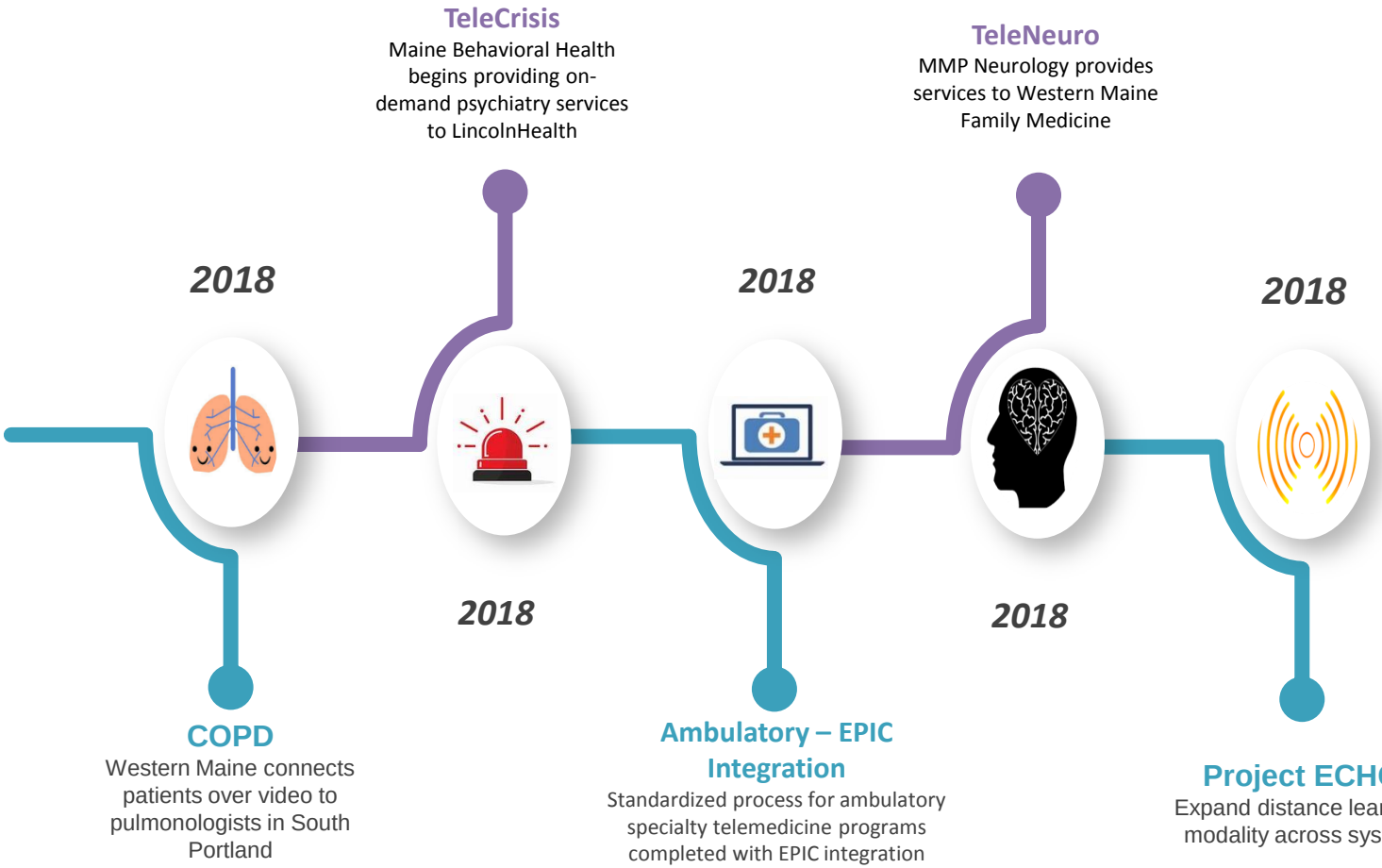
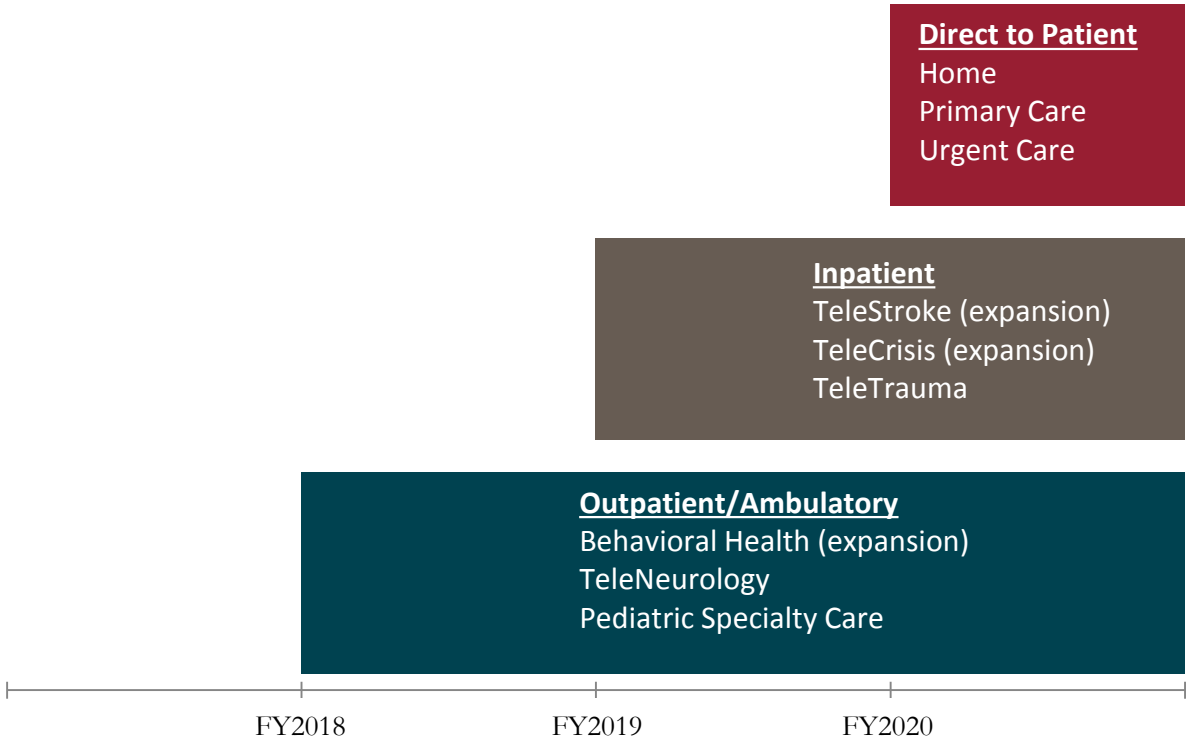
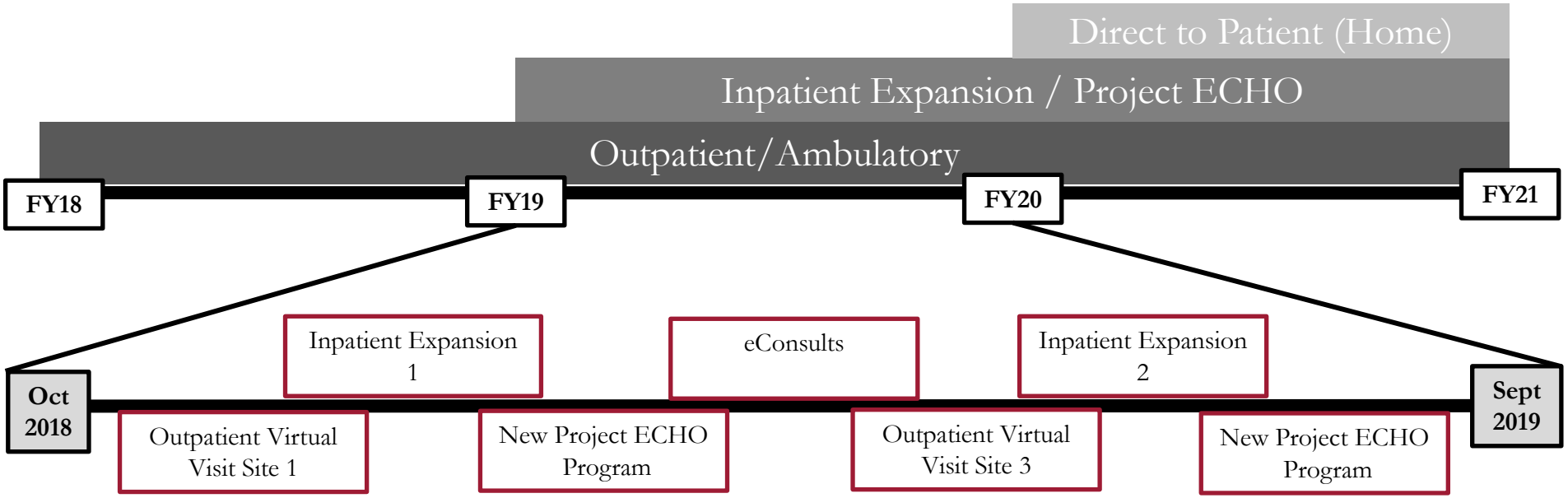
Telehealth at MaineHealth: A Timeline



3 Year Telemedicine Plan

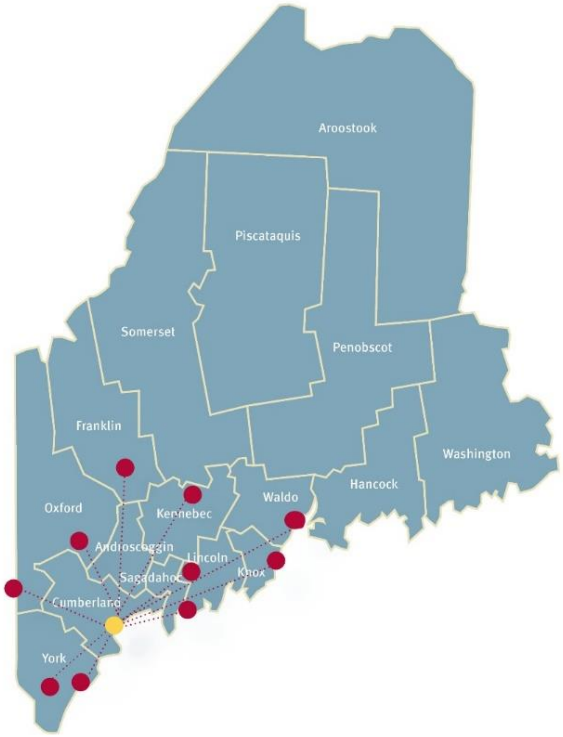


MaineHealth Telehealth Strategy



MaineHealth Telemedicine Network FY18 – FY19

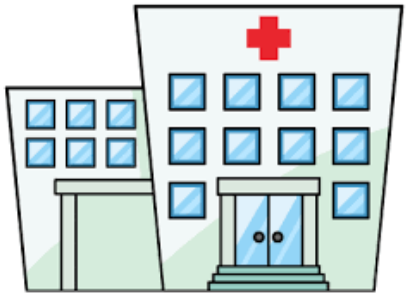
- MaineHealth Members
  - Ambulatory
  - Point-to-Point
  - Employed Providers
- SeHR: Epic-to-Epic
- MaineHealth Technology
  - Standardize software and hardware
- Specialty Outreach
  - Regional Care Models
  - Patient Centered (care close to home)
- Split Billing
  - Originating site bills Q3014
  - Specialty site bills professional



MaineHealth Telehealth

Virtual Visits

Primary Care Practice



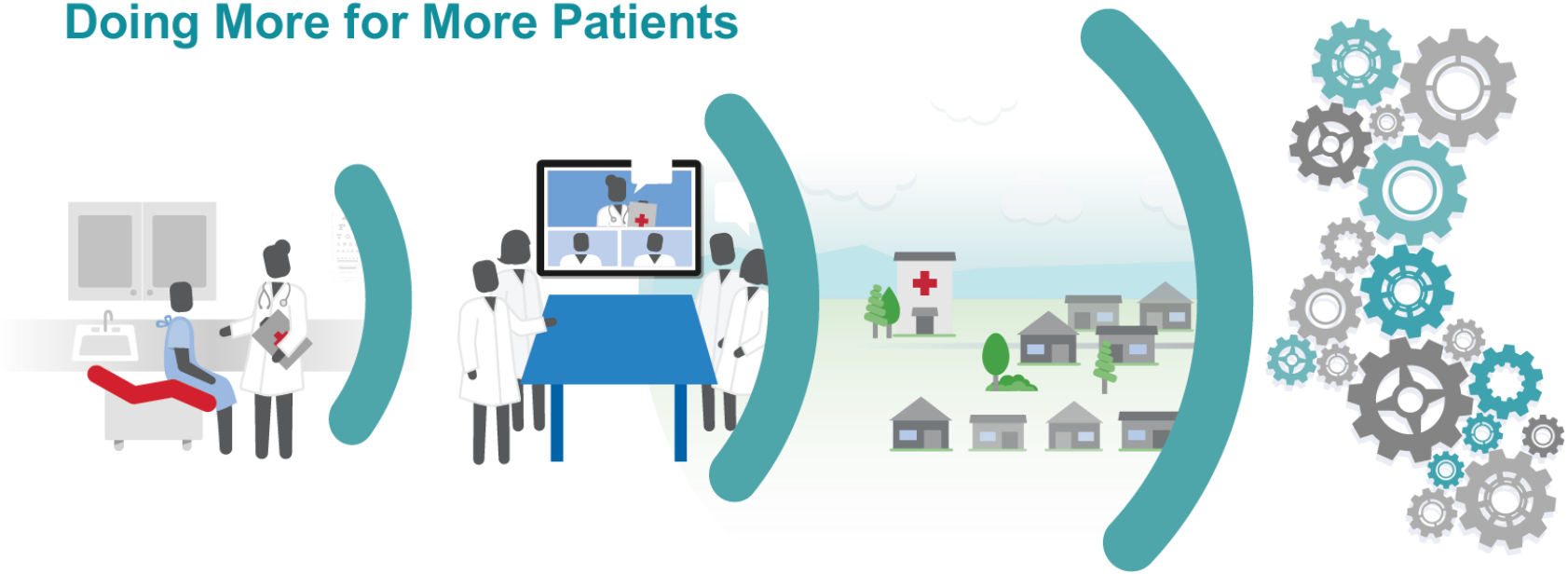
- Specialist follow-up visits
- Add remote caregiver to visit
- Hand off with primary care and specialist

Home

- Specialist follow-up visits
- Add remote caregiver to visit
- Primary care extended hours
- Urgent care: Common ailments
  - After hours, weekends, vacations

Project ECHO –
Extension for Community Healthcare Outcomes

Doing More for More Patients



PATIENT
- Right Care
- Right Place
- Right Time

PROVIDER
- Acquire New Knowledge
- Treat More Patients
- Build Community of Practice

COMMUNITY
- Reduce Disparities
- Retain Providers
- Keep Patients Local

SYSTEM
- Increase Access
- Improve Quality
- Reduce Cost

Increases capacity and decreases unnecessary referrals

The ECHO Model

Amplification – Use **Technology** to leverage scarce resources

Case Based **Learning** to master complexity

Share **Best Practices** to reduce disparity

Web-based **D**atabase to **Monitor Outcomes**

MaineHealth

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Project ECHO®–
Extension for Community Healthcare Outcomes

Mission – De-monopolize knowledge in order to expand access to best-practice medical care across the U.S. and globally

- Links expert specialist teams at an academic 'hub' with primary care providers in local communities – the 'spokes' of the model
- More than "virtual grand rounds" – combining a didactic presentation with case reviews
- Increases capacity and decreases unnecessary referrals

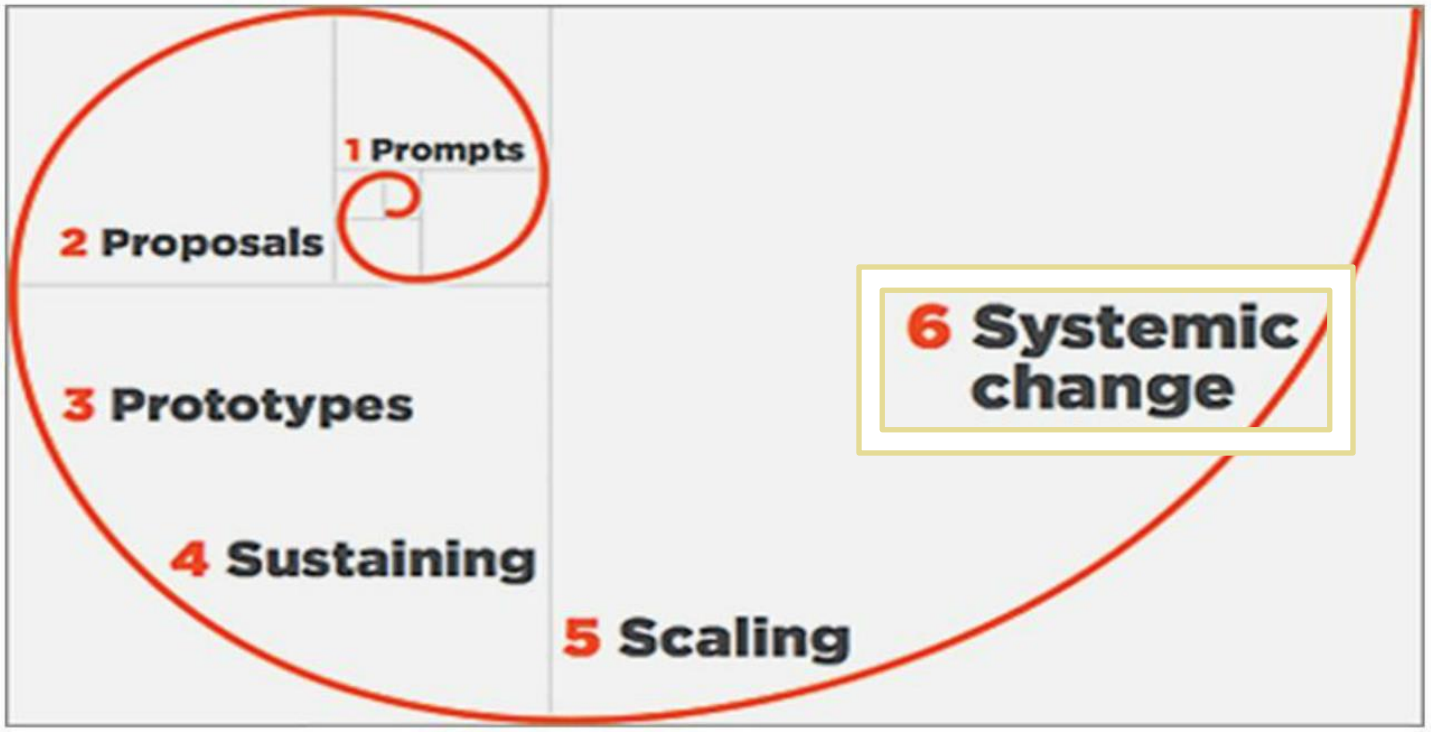
FY19 ECHO Projects

Launch date	Topic	Hub/Sponsor	Spokes	When?
In process	Virology	MMC Virology Treatment Center	Primary care providers	3rd Thursday of the month, 12-1pm
In process	Endocrinology	MMP Endo/Diabetes Center	Primary care providers	2nd Tuesday of the month, 7:30-8:30am
Fall 2018 (October)	Cardiology	Maine Cardiovascular Service Line	Primary care providers	3rd Tuesday of the month, 7-8am
Fall 2018 (October)	IMAT	Opioid Taskforce	Care teams	3rd Thursday of the month, 12-1pm
Winter 2019 (January)	Palliative Care	Coastal Healthcare Alliance/State Palliative Care Advisory Council	Care teams	1st Thursday of the month, 7:30-8:30am
Spring 2019	Breast Cancer Genetics	MaineHealth Cancer Care Network	Oncologists	Monthly in the morning, day of week TBD
Spring 2019	Diabetes	MMP Endo/Diabetes Center	Care teams	TBD

Where are we going?

The Six Stages of Innovation

Successful innovation passes through six stages:



(Taken from p12-13 in Murray, R; Caulier-Grice, J and Mulgan, G (2010) *The Open Book of Social Innovation.* NESTA)

Nesta...

Telehealth Strategy - Timeline

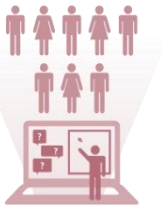
Inpatient

FY2017

Outpatient

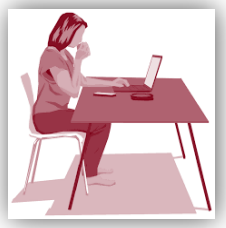
FY2018

Project ECHO



FY2019

Home

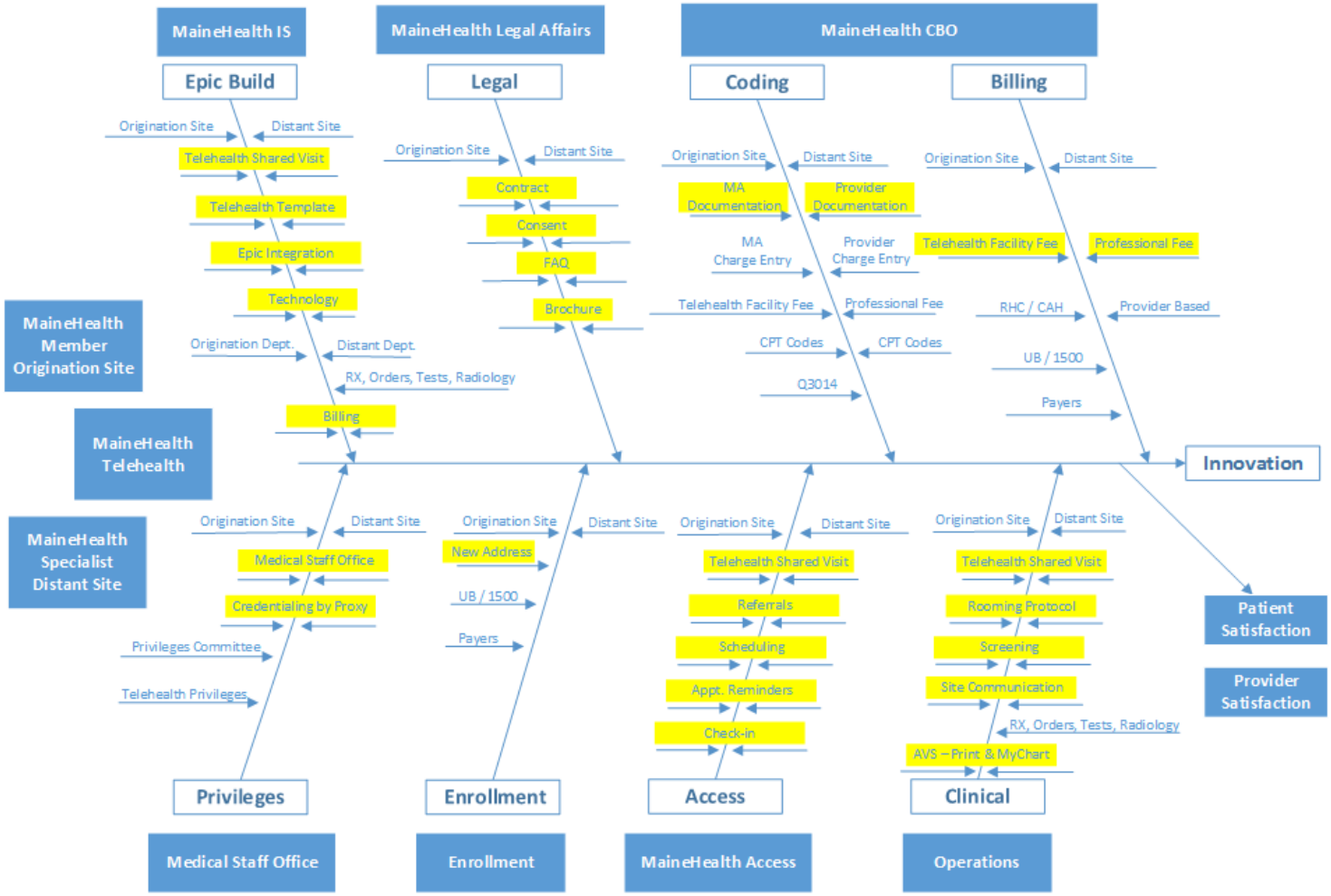


FY2020

Telehealth Fully Integrated in MH Care Model

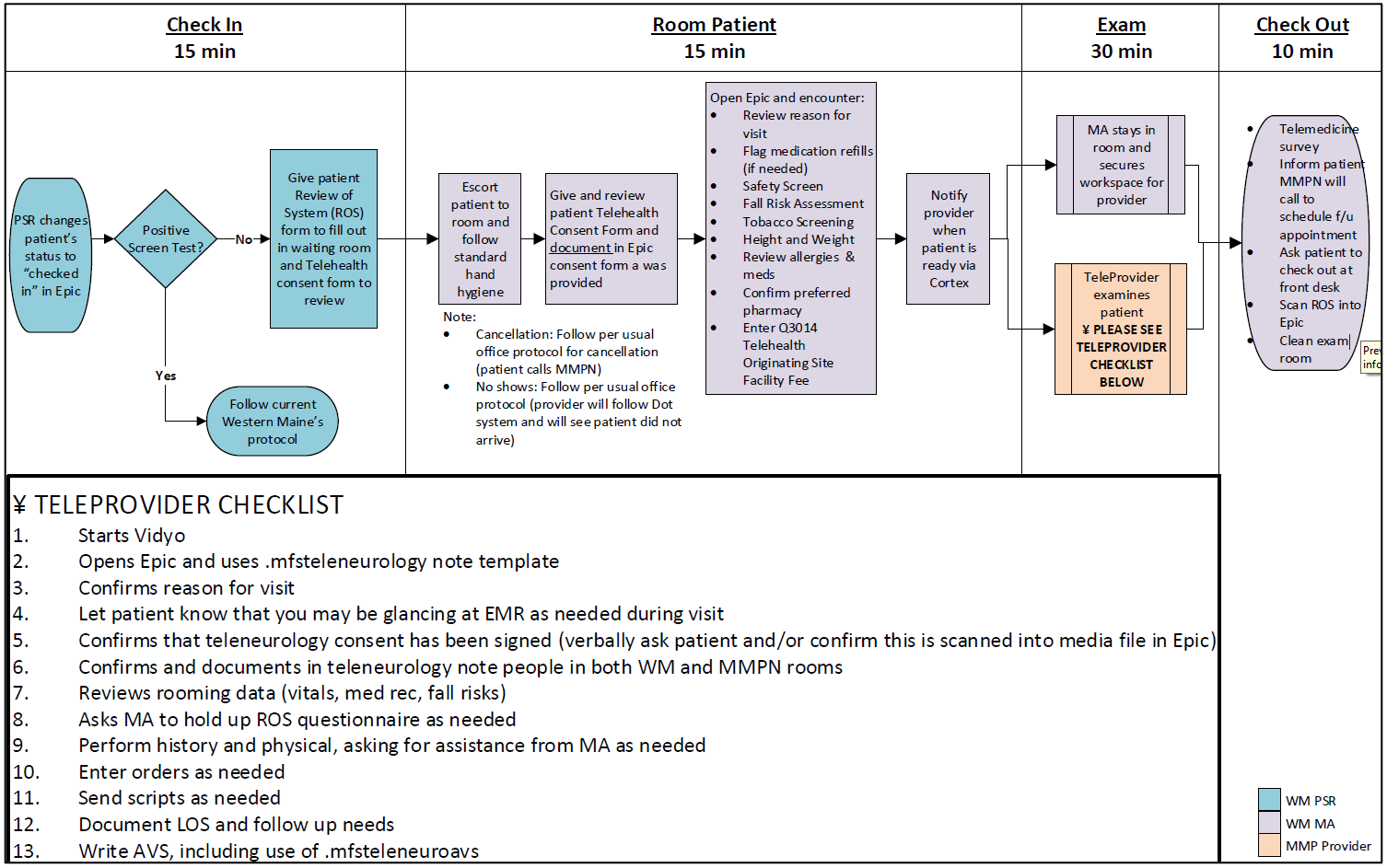
2. Develop Operating Procedures

1. Identify Stakeholders



Who are your stakeholders?

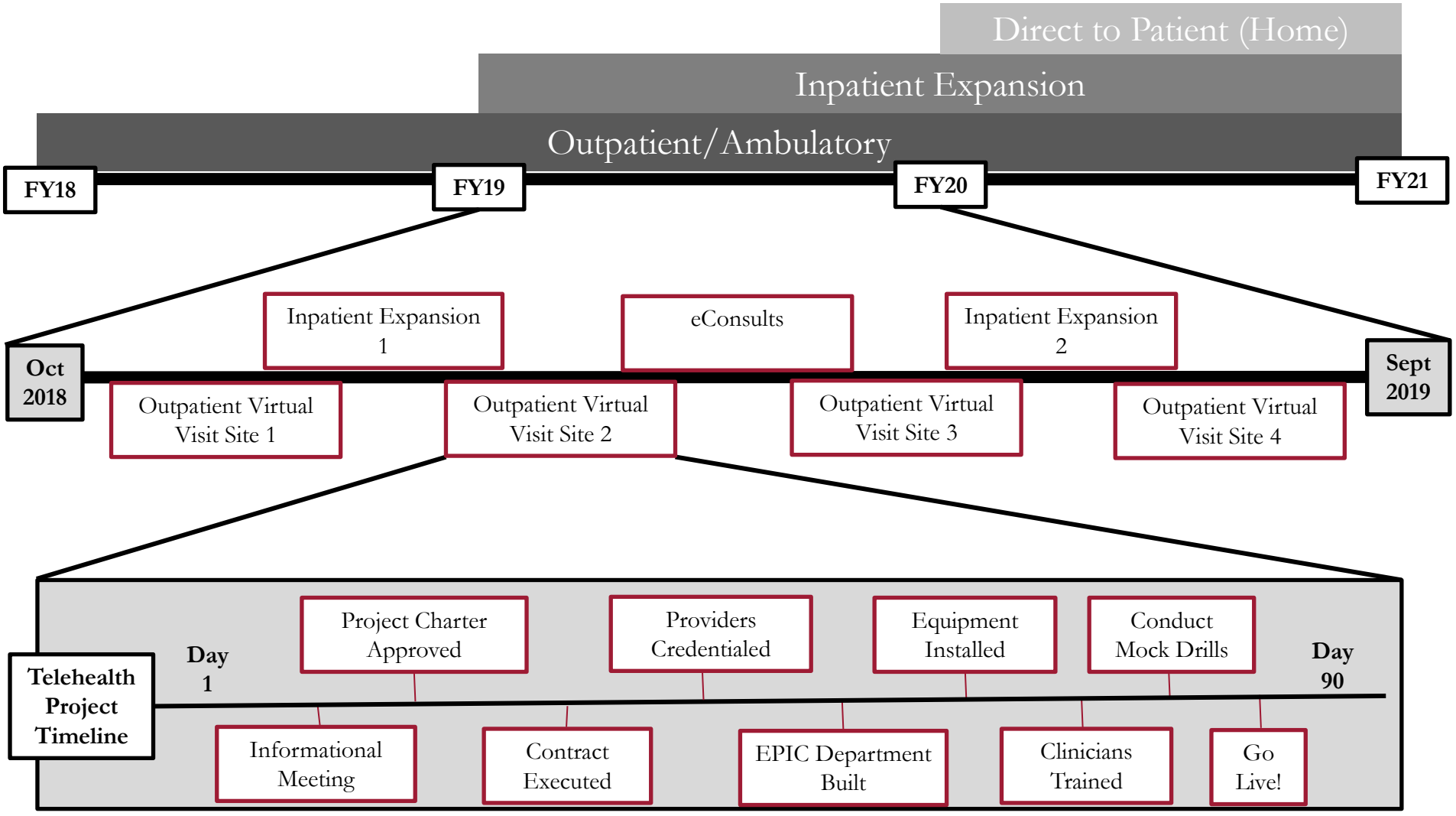
2. Establish workflows



¥ TELEPROVIDER CHECKLIST

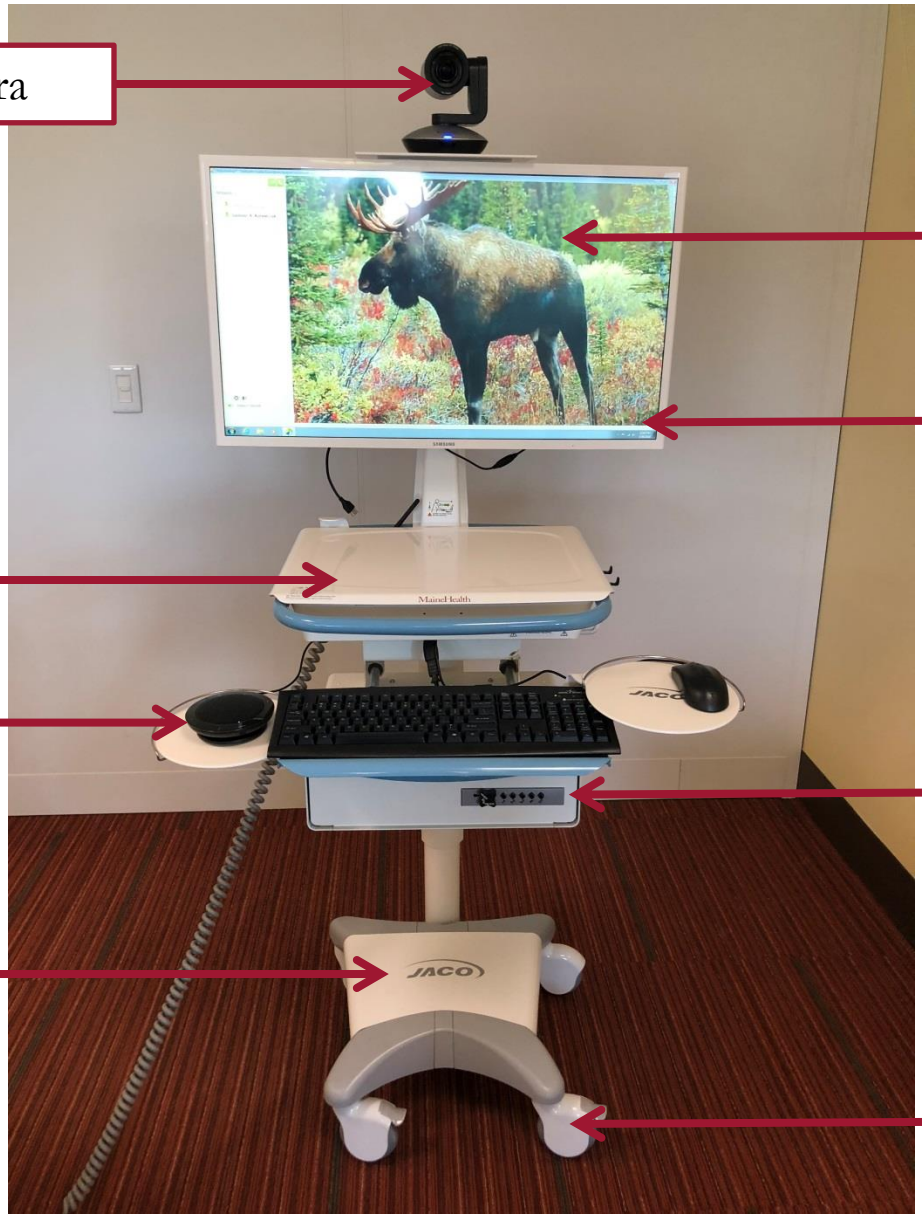
1. Starts Vidyo
2. Opens Epic and uses .mfsteleneurology note template
3. Confirms reason for visit
4. Let patient know that you may be glancing at EMR as needed during visit
5. Confirms that teleneurology consent has been signed (verbally ask patient and/or confirm this is scanned into media file in Epic)
6. Confirms and documents in teleneurology note people in both WM and MMPN rooms
7. Reviews rooming data (vitals, med rec, fall risks)
8. Asks MA to hold up ROS questionnaire as needed
9. Perform history and physical, asking for assistance from MA as needed
10. Enter orders as needed
11. Send scripts as needed
12. Document LOS and follow up needs
13. Write AVS, including use of .mfsteleneuroavs

3. Develop Project Timeline



4. Define Technology

Telemedicine Clinical Cart



Pan/Tilt/Zoom Camera

HD Television Monitor

Web-based Video Platform

Storage Space

Speakerphone

WiFi-Enabled PC

Built on Standard Medical-grade Cart

Lightweight, Mobile Cart

Digital Medical Peripherals

Littmann Electronic Stethoscope

- Heart/Lung sounds digitally transmitted
- Remote Evaluation
- Live User Interface
- Seamless matches in-person experience

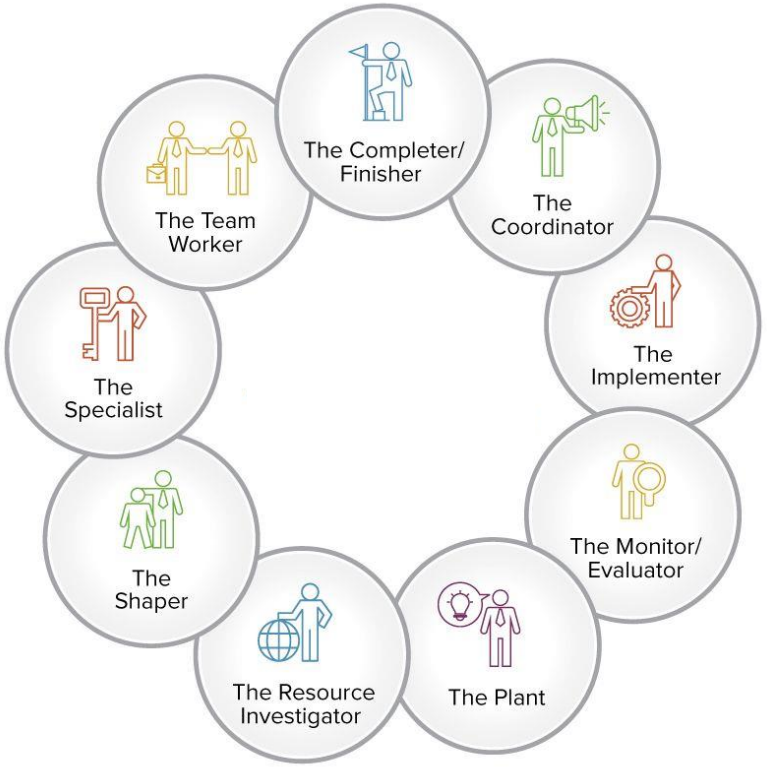
Horus Scope Digital Telemedicine Camera

- HD Camera with touch screen interface
- Interchangeable Attachments for:
  - ENT
  - Dermatology
  - Ophthalmology
  - Audiology
  - General Examinations

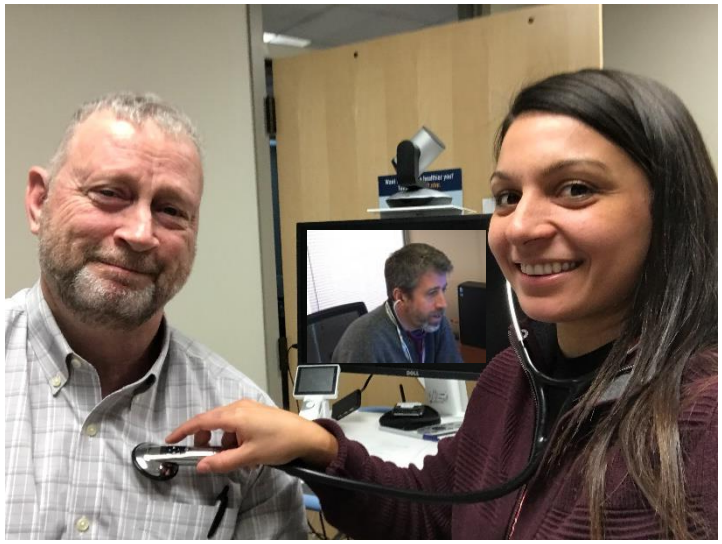
3. Start Implementing!

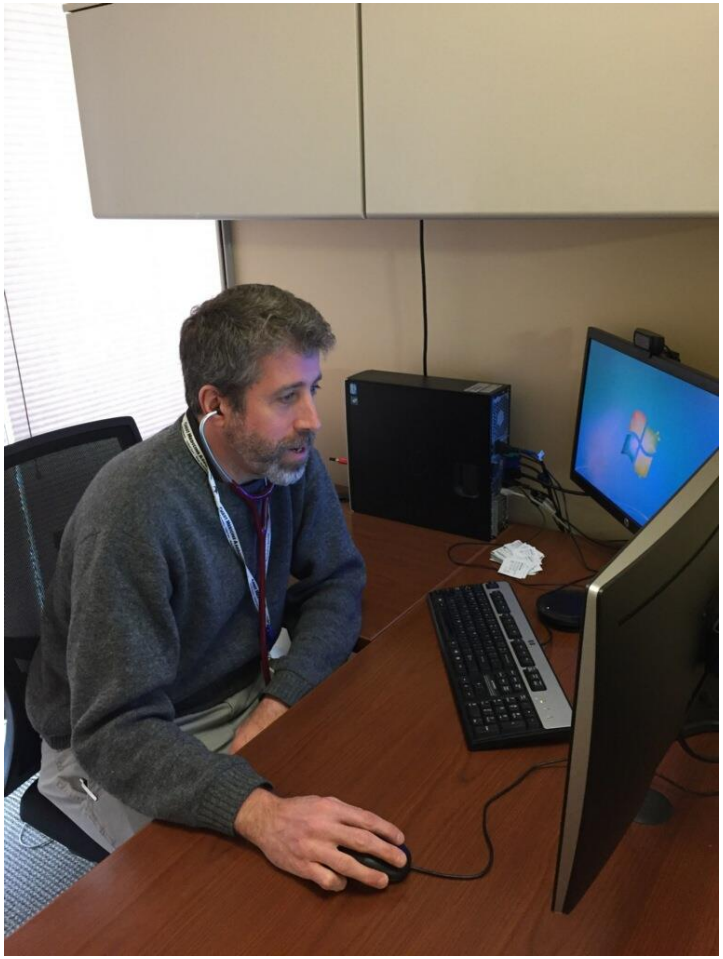
Train Clinicians

- Align clinical staff with mission and message of telehealth
- Plan separate meetings with individual staff groups as well as larger group sessions so everyone understands eachother's roles
- Define each role and develop checklists, as necessary
- Schedule at least two "mock clinical" sessions to dry test the workflows



Mock Clinical





Go-Live!

4. Check for Reactions

Provider Experience – Virtual Visits

Provider Satisfaction Survey - TeleStroke

Consulting Hospital's Provider Feedback
The system and the neurologist was very helpful once she put on the headset so I could hear her.
I was very happy with the evaluation and consult that I received from Dr. Reynolds recently. All went well with the camera, computer, and connection.
I appreciate the support
Could not see the provider on the screen. Appreciate the physician's ability to talk with husband and reassure him with treatment in spite of the technical difficulties
The neurologist was great, interacting well with the patient and wife, this encounter was very helpful in helping the family be more at ease with this frightening experience and it helped them make an informed decision on treatment. Excellent
Dr Morris is an awesome resource.
Very helpful, Dr. Goodman provided significant recommendations in caring for the patient

COPD

Feedback from Specialist:

- "This is very cool. The stethoscope sounds better than the scope I have here in the office"

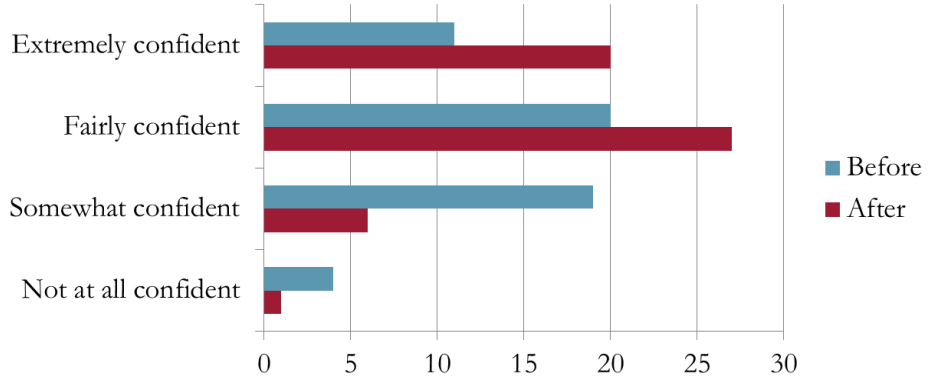
Feedback from Originating Site:

- On implementation process: "We didn't have as many issues as I thought we'd have"; "I think its going really well" – Practice Manager

Provider Experience – Project ECHO

Project ECHO - Endocrinology

Self-reported confidence in ability to manage the care for the case(s)/condition(s) presented :



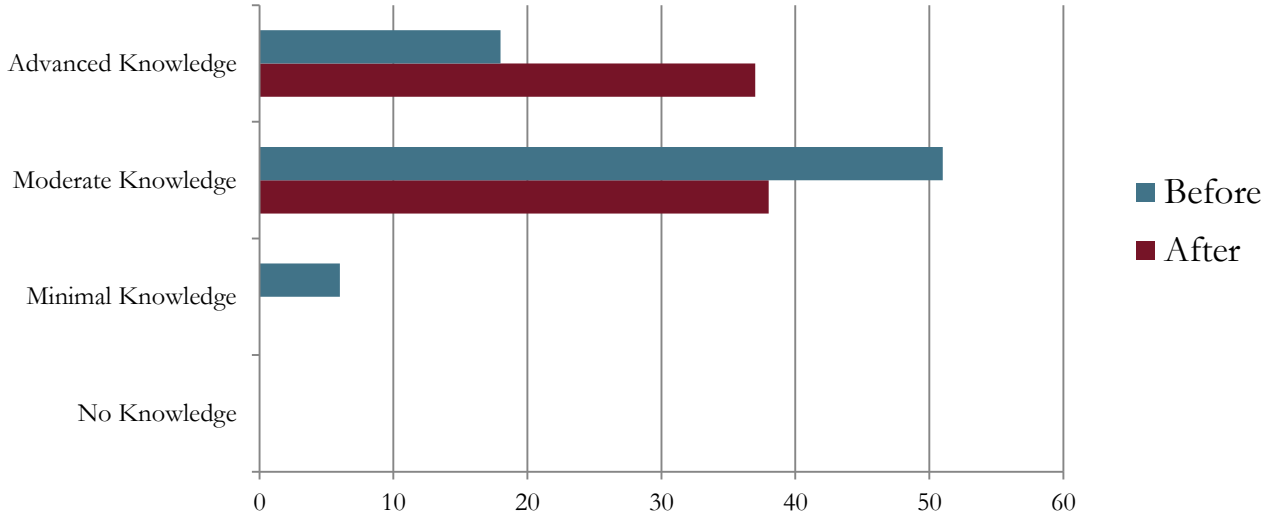
Participant responses indicating they were Fairly or Extremely Confident in managing the cases presented increased from **60% to 91%** after the Project ECHO Endo teleclinic*

100% of participants' responses indicate they…

- Plan on attending next call
- Would recommend participating in an ECHO project to a colleague
- Believe that EndoECHO improves coordination and comprehensive care of patients*

*Note: Total responses = 75 and are combined for 9 sessions

Dependence on specialist



100% of participants felt that they had Moderate or Advanced Knowledge about when it's appropriate to consult with a specialist after the EndoECHO session.

"No local endocrinologist in our area, these presentations are very helpful to increase PCP knowledge to reduce burden on patient to travel to endocrinologist"

- MaineHealth PCP

Patient Experience

COPD - Patient

- All surveys indicated “Strongly Agree” or “Agree” to all survey questions
- Questions include:
  - I was happy with the support and help that I was given during the session.
  - The telehealth system met all of my needs for this appointment.

“Great Job!”

- Patient

TeleStroke

"[TeleStroke] saved my life. Without it I couldn't have received the blood clot breaking medicine."

– Real Patient

Key Takeaways

- Learn from Nike and "Just Do It"
- Build strong relationships with every department and check in with them at regular intervals
- Follow a few basic project management steps:
  - Develop a Project Plan
  - Create a Stakeholders Analysis and Communication Plan
  - Define Outcome Metrics and Reporting Process
- Make sure the program is in the best interest of the patient and data supports its need
- SHARE YOUR SUCCESSES!

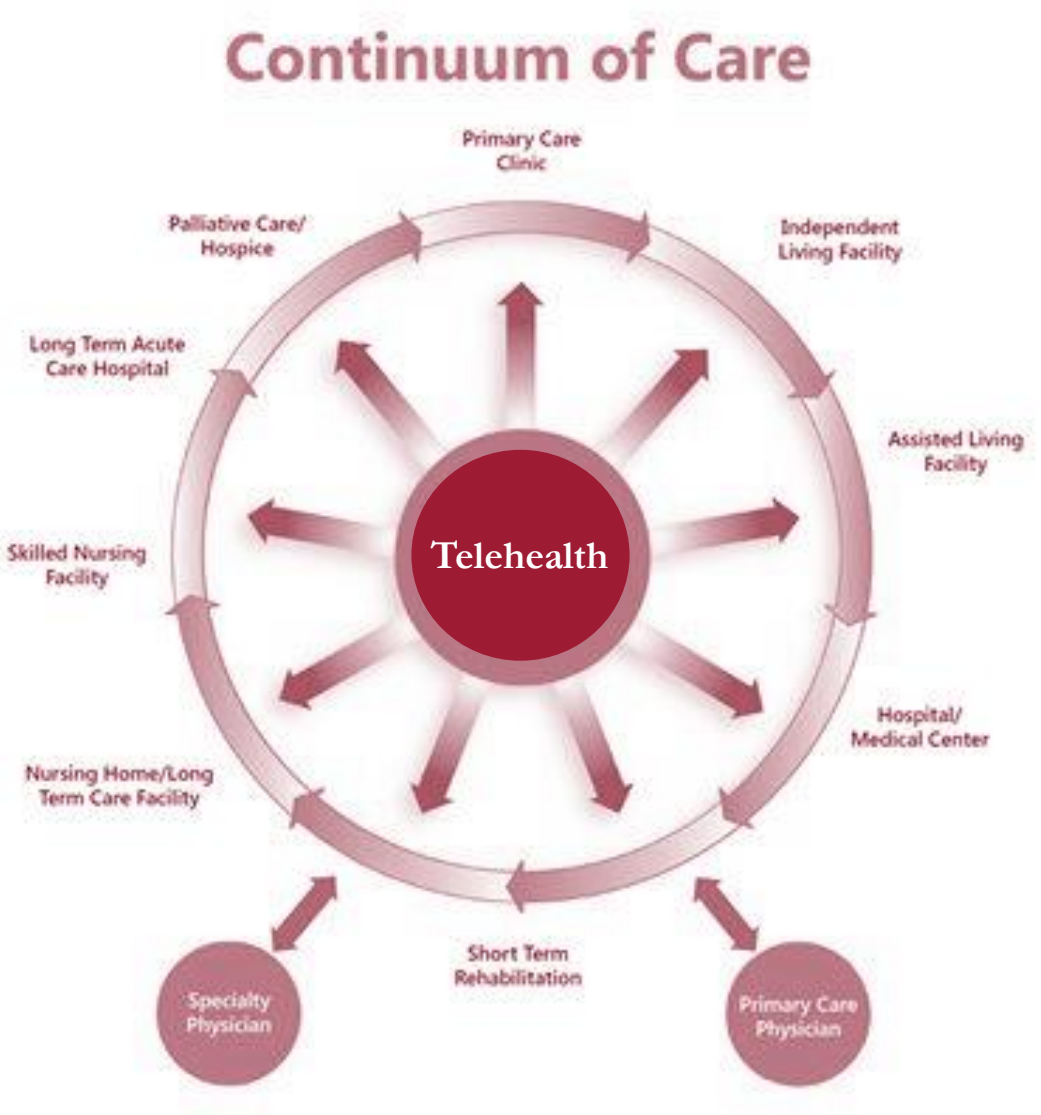
The Road Ahead

1. Monitor and Improve the Program

2. Balance the Business Model

The Road Ahead

3. Embed Telehealth in Continuum of Care



Q&A

COSTS
DIAGNOSE
VIRTUAL
E-HEALTH
CHAT
DOCTOR
MEDICAL
APPLICATION
HEALTHCARE
TELEHEALTH
REMOTE
TABLET
PATIENT
SOFTWARE
HEALTH
ONLINE
COMPUTER
INTERNET
CARE
VIDEO
DIGITAL
WEB

Thank you

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