



TELEHEALTH 2.0: POSITIONING DNP'S AS INDUSTRY LEADERS

DR. TINA GUSTIN DNP, CNS, RN

ASSISTANT PROFESSOR OLD DOMINION UNIVERSITY
DIRECTOR FOR OLD DOMINION UNIVERSITY TELEHEALTH TRAINING CENTER (CTIER)
TELEHEALTH MANAGER CHILDREN'S HOSPITAL OF THE KINGS DAUGHTERS
TGUSTN@ODU.EDU
TINA.GUSTIN@CHKD.ORG



Doctors of Nursing Practice

OBJECTIVES

Introduce

- Telehealth in 2020

Define

- Telehealth demand drivers and policy changes

Understand

- Major industry players and expansion priorities

Gauge

- Return on investment

Identify

- DNP research and thought leadership projects

TECHNOLOGY FUNCTIONS IN HEALTH CARE



Documentation,
data storage



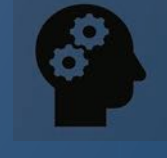
Predictive
analytics



Communication,
remote consultation



Robotics,
surgical support



Virtual augmented,
reality

WHAT IS “TELEHEALTH”

Telehealth represents the interactive, electronic exchange of information for the purposes of diagnosis, intervention, or ongoing care management between a patient and/or health care providers situated remotely.



DEFINING “TELEHEALTH”

PATIENT-TO PROVIDER

- Virtual visits
- Wearables
- Secure messaging



TELEHEALTH MODALITIES

- Real-time virtual visits
- Remote patient monitoring
- Asynchronous store-and-forward

PROVIDER-TO-PROVIDER

- e-consults
- Implantables
- Second opinion consults



MOST COMMON TELEHEALTH USE CASES

Two-thirds of acute care providers are using telehealth

Top Specialty applications

Stroke



Psychiatry



Neurology



Radiology

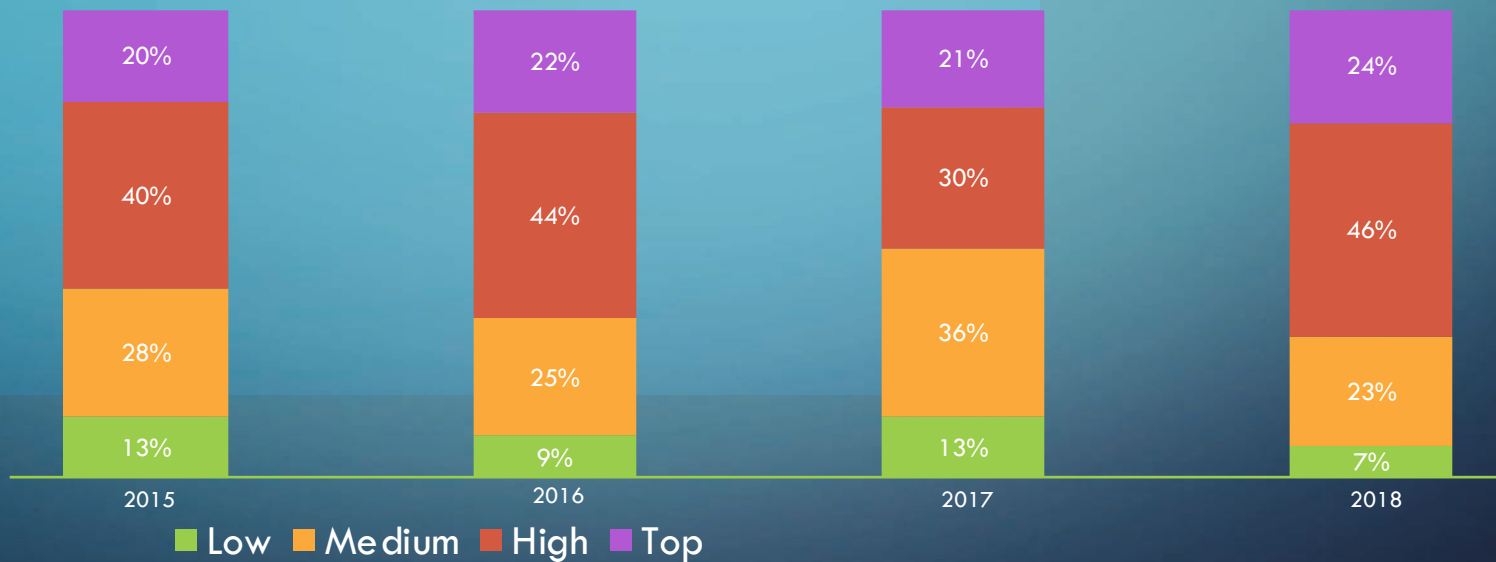


Pediatrics



TELEHEALTH IS A TOP PRIORITY

Telemedicine as a Strategic Priority



In Touch, 2018 S Telemedicine Industry Benchmark Survey (2018); American Telemedicine Association, ATA Executive Leadership Survey 2017; Service Line Strategic Advisor Research and Analysis.

TELEHEALTH IS A TOP PRIORITY



83%

Health care executives responded that they were likely to invest in telehealth in 2017

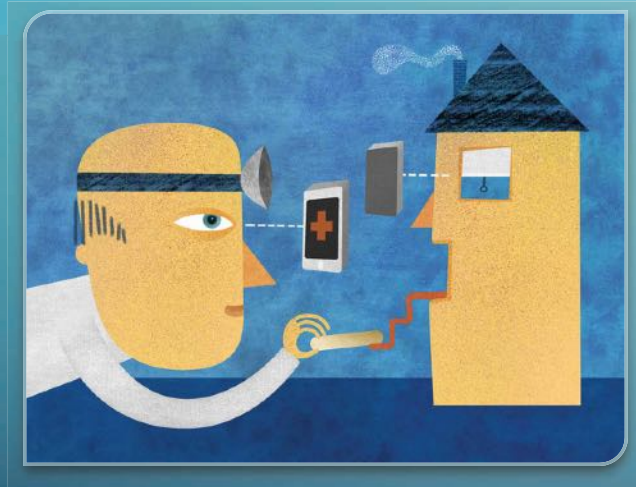
COMMERCIAL CLAIMS GROWTH

52%

- Commercial telehealth claims growth 2005-2014

261%

- Commercial telehealth claims growth 2014-2017



TELEHEALTH DEMAND DRIVERS AND POLICY IMPLICATIONS

DEMAND TRENDS FOR 2019



Policy and Advocacy

CMS growing more interested in expanding coverage
Proposals to loosen restrictions and support new services



Technology and Innovation

Apple watch moving into the intersection between RPM and virtual visits
New EPIC capabilities increase opportunities to use telehealth across provider organizations



Consumer Demand

Qualitative drivers include convenience, cost, and quality
While many express interest, low repeat utilization among consumers

← More Expected impact on growth Less →

KEY IMPERATIVES FOR 2019



Policy and Advocacy

Identify and advance telehealth legislation that supports program viability within a given market



Technology and Innovation

Adopt user-friendly, accessible technologies to integrate telehealth into daily activities



Consumer Demand

Prioritize patient population with likelihood to need or want to utilize telehealth

← More Expected impact on growth Less →

HISTORICAL RESTRICTIONS



Modality

Real-time audiovisual virtual visits between a patient and provider and remote patient monitoring



Distant Provider

Physician and advanced practice providers, psychologists, licensed clinical social workers, certified nurse anesthetists, and registered dietitians



Patient Location

Qualifying rural and underserved area, including a rural census tract, health care professional shortage area (HPSA), or a region located outside of a Metropolitan Statistical Area



Care site

Originating site is a medical facility such as a hospital, physician's clinic, skilled nursing facility, or federally-qualified health center

2019 CMS SHIFTS

Agency is getting creative to expand telehealth coverage

“For CY 2019, we are aiming to increase access to Medicare beneficiaries to physicians services that are routinely furnished via communication technology by clearly recognizing a discrete set of services that are defined by and inherently involve the use of communication technology.”

Centers for Medicare and Medicaid Services

CY 2019 Physician Fee Schedule Proposed Rules

OVERVIEW OF CMS SHIFTS



Key CMS Decision

Create new virtual services that are explicitly NOT considered to meet the technical definition of “Medicare telehealth services.”



Impact

New virtual services are not subject to Medicare telehealth service restrictions on:

- Modality
- Patient location
- Care site



Implication

CMS looking for opportunities to expand telehealth coverage within bound of their legal authority



CMS EXPANDED STORE AND FORWARD COVERAGE

EXPANDING SUPPORT TO NEW MODALITIES

New fee-for-service CPT code created for FY 2019 for store and forward. Additional codes for remote patient monitoring added

Store and forward base rate is \$10/service

New remote monitoring codes include code for device set up and patient education

REIMBURSING VIRTUAL PROVIDER-TO-PROVIDER CONSULTS

New codes created for internet-based provider-to-provider consults

For codes available depending on time required for the consultation

Both attending and consulting providers will be eligible for reimbursement

COVERING NEW IN-KIND VIRTUAL SERVICES

CMS conceptualizes new services, the **brief virtual check-in**, for patients to consult with provider whether they need an in-person visit

Intended to reward providers who use virtual care to help patients avoid unnecessary office visits

Code will only be reimbursed if patient does not need to come in; base rate will be \$14/service

ELIMINATING GEOGRAPHIC RESTRICTIONS FOR SELECT SERVICES

As mandated by 2018 legislation, CMS will eliminate geographic restrictions for telestroke services and dialysis patients' monthly check-ins.

Virtual stroke care to be covered even if the patient is not located in a telehealth-eligible region

Dialysis patients will be able to receive certain monthly check-ins with nephrologist from their home

CHANGES TO MEDICARE ADVANTAGE (MA)

- Beginning 2020 MA plans will be able to offer unrestricted telehealth services as a basic benefit
 - Funded from a much larger pool of general benefit dollars
 - Changed expected to increase plans' willingness to offer more expensive telehealth benefits

34%

Share of Medicare beneficiaries enrolled in MA plans in 2018

42%

Share of MA beneficiaries projected to be in MA by 2025





MAJOR INDUSTRY PLAYERS AND EXPANSION PRIORITIES

NEW PLATFORM CAPABILITIES ON THE HORIZON

Established

Emerging

Experimental

Technology Feature	Function	Example use
<ul style="list-style-type: none">• Camera• Video• Bluetooth peripherals	<ul style="list-style-type: none">• Image capture• Audio-visual conferencing• Manual biometric data collection	<ul style="list-style-type: none">• Teledermatology store-and-forward• Primary and urgent care virtual visits• Monitoring CHF and COPD patients
<ul style="list-style-type: none">• Smartphone, wearables-based sensors• Ingestible sensors	<ul style="list-style-type: none">• Manual and biometric data collection• Automatic biometric data collection	<ul style="list-style-type: none">• Monitoring heart rate, steps, food intake, etc.• Digestible pill for tracking medication adherence
<ul style="list-style-type: none">• Artificial intelligence and machine learning• Virtual and augmented reality	<ul style="list-style-type: none">• Diagnosis and treatment recommendations• Simulated therapy	<ul style="list-style-type: none">• Imaging interpretations• Chat bot for mental health• Provider training• Tele-rehabilitation

INDUSTRY INTEGRATION



- Apple watch uses RPM to drive virtual visits downstream
 - September 2018 the FDA approved the Apple watch as a tool for detecting one of the leading causes of stroke
 - Stanford has launched a study to test “built-in EKG capabilities” with 400,000 participants
 - If the apple watch detects complications in any participants they will get a free follow-up virtual visit with American Well.
 - Apple is having conversations with CMS about possibilities within **Medicare Advantage** and has signed deals with **Aetna** and **United Health Care**.
 - Subsidizing Apple watches to members in certain insurance plans is in discussion



INDUSTRY INTEGRATION



Epic integration of virtual visits into platform

- Schedule a virtual visit with a clinician from any EPIC organization if your regular provider is unavailable.
- Consult a patient's entire care team, including external providers who also use Epic

190 M

Patients with Epic MyChart

400

Provider organizations
using Epic

2

Epics global EMR
ranking

INDUSTRY INTEGRATION (PAYERS)

2002

- BCBS of CA and MA became first payers to partner with telehealth vendor

2007

- Cigna and Aetna began offering telehealth through vendor partnership

2014

- Humana launches telehealth initiatives for its members

2018

- Cigna became investor in MDLive
- United Healthcare launched a glucose management pilot program that makes wearables available to MA patients
- Human finalized agreements to give MA patients in-home RPM technology as well as virtual visits with home care providers



INDUSTRY INTEGRATION (LARGE SYSTEMS)



Cleveland Clinic



Mercy



Walgreens

- New York Presbyterian
 - Offers second opinion services for most specialties and subspecialties to patients in most states via Walgreens Find Care Now online
- Cleveland Clinic
 - Administers telemedicine services, including second opinion services, pediatric adoption, and nutritional consults to international facilities in Toronto, and Dhabi
- Mercy Medical
 - A Stand-alone tele-hospital provides remote support to hospitals at the University of North Carolina and Pennsylvania State University



RETURN ON INVESTMENT

COST SAVINGS

- 24.2% reduction in psychiatric hospitalizations in a study of 100,000 VA patients using on-demand video visits



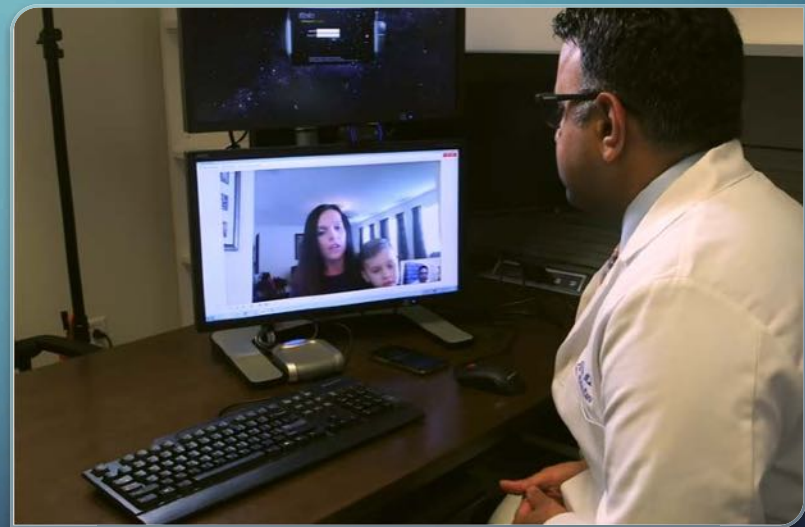
DOWNSTREAM REVENUE

- **30% of patients seek in-person follow up care within 21 days of a virtual urgent care visit**
- **A 500-bed rural health system in the northeast served 50 new bariatric patients per year, bringing in an estimated annual revenue of \$700,000 from new system patients**



PATIENT SATISFACTION

- **AveraNow program gets average 4.71/5 star score**
- In Harvard Business Review study 97% patients satisfaction after first TH visit; 74% of patients felt that the virtual visit improved their relationship with their provider



CARE ADHERENCE

- 65% of new mothers reported blood pressure data for 5-7 days post discharge, compared to <5% of new mothers nationally who attended post natal visits



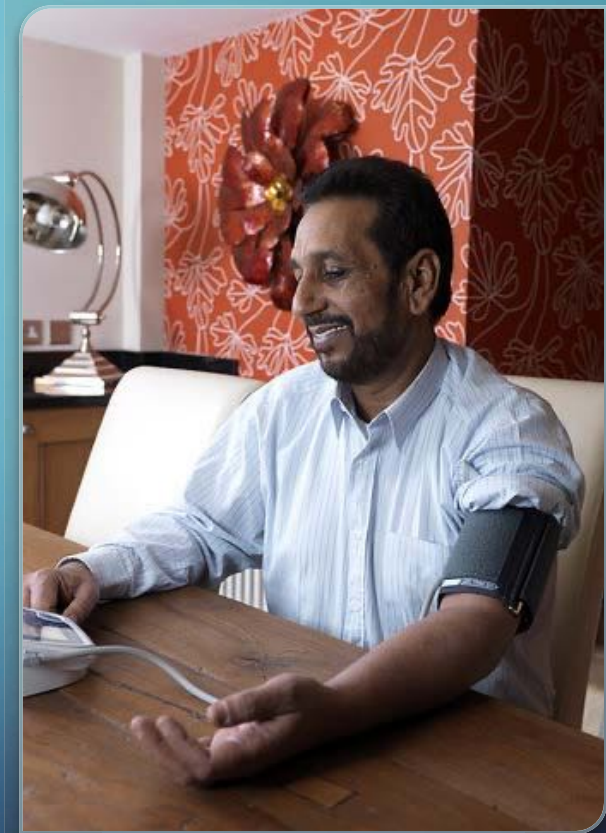
READMISSION, COST SAVINGS

- Gesinger lowered odd of readmission at 30 days by 44% when CHF patients were enrolled in RPM relative to earlier periods when not enrolled; estimated ROI is 3.3 with 11% cost savings during study period



UNPLANNED HOSPITALIZATIONS

- In VA study of chemotherapy patients, pilot group had 57% fewer unplanned hospitalizations and 96% fewer unplanned clinic visits compared to the control group



CHALLENGES



UTILIZATION REMAINS LOW



77% of consumers report a willingness to use telehealth



50 million said they would switch to a provider that have virtual access



Low repeat users



Below 1% utilization rate of ALL healthcare

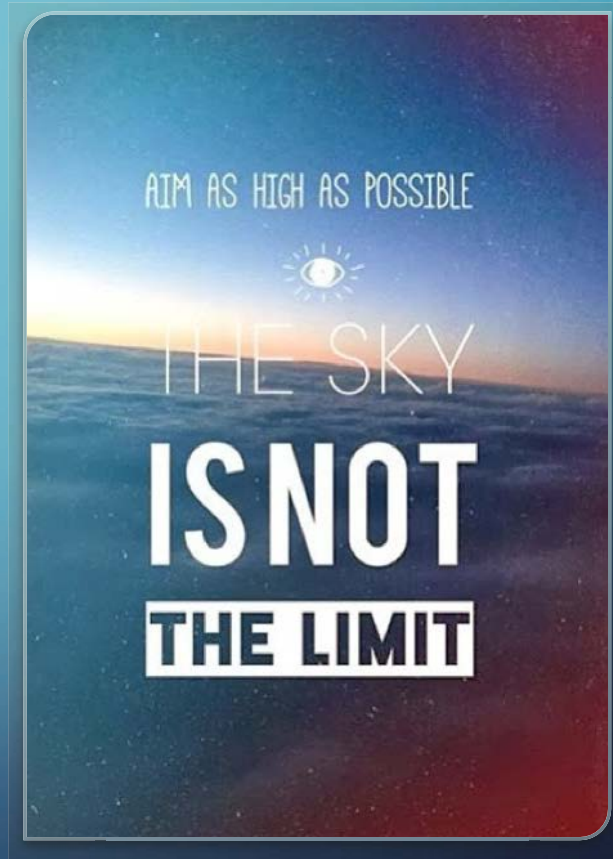


Consumers top 5 concerns are:

- Quality of care
- Provider may not be able to diagnose the problem
- Secure of health information
- Lack of personal connection with provider
- Cost of the virtual visit is too high

DNP AS TELEHEALTH LEADERS

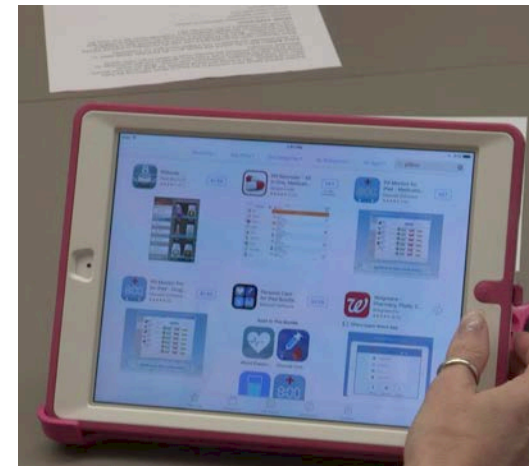
- Find your seat at the telehealth table
- Become a thought leader
- Champion Adoption
- Encourage creativity
- Become a policy advocate



VGO-PEDATRIC
ENGAGEMENT
PROJECT



PAIN AND PALLIATIVE CARE PROJECT



**VMAP-
VIRGINIA
MENTAL
HEALTH
ACCESS
PROGRAM**



**HEALTHY
YOU
PROJECT**



KETOGENIC DIET MONITORING



DNP PRACTICE AND RESEARCH CONSIDERATIONS

- Conduct multicenter studies that show Return of Investment
- Research patient outcomes (patient satisfaction should not be the only question)
- Assure that end users are trained to conduct telehealth encounters
- Become policy advocates at your state level
- Consider “low hanging fruit” when starting programs
- Begin with inexpensive equipment



TELEHEALTH
RESOURCES AND
ORGANIZATIONS

American Telehealth Association

- <https://www.americantelemed.org/>

Center for Telehelath e-Health Law (Ctel)

- <http://ctel.org/>

SEARCH

- <https://searchsociety.org/about/>

Center for Connected Health

- <https://www.telehealthpolicy.us/resources/search-telehealth-resources>

TelehealthResourceCenters.org






2 National Resource Centers



NTRC	gpTRAC	NETRC
CTRC	HTRC	UMTRC
SWTRC	SCTRC	MATRC
PBTRC	TexLa	SETRC

12 Regional Resource Centers



QUESTIONS

Contact Information:
tina.gustin@chkd.org
tgustin@odu.edu
757-285-6215