

Telehealth 101

Part 1

- What is telehealth
- Technology
- Development & Champions

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New Hanover Regional Medical Center

- A county-owned, non-profit teaching hospital, regional referral center and UNC School of Medicine branch campus based in Wilmington, N.C.
- More than 6,800 employees, 741 physicians, 333 midlevel providers and 930 volunteers
- Operates three campuses and is a 769-bed system
- Includes Women's and Children's; Rehabilitation; Orthopedic; and Behavioral Health specialty hospitals

NHRMC Physician's Group

- contains more than 250 providers in both primary care and specialty fields including:
 - Cardiology
 - Family and Internal Medicine
 - Gastroenterology
 - Hospitalists
 - Neurology
 - OB/GYN and Midwifery
 - Oncology
 - Psychiatry



Telehealth Categories

Retail	Specialty Consults	Chronic Care	Population Health
<ul style="list-style-type: none">• E-Visits• Video Visits• Public facing, usually up front payment	<ul style="list-style-type: none">• Provider to Provider• Provider to patient in healthcare setting	<ul style="list-style-type: none">• Provider to patient in home or skilled nursing facility	<ul style="list-style-type: none">• Biometric devices• First Aid – simple medical issues• Monitoring• Coaching

E Visits

Your Address

You verified that the information on file is correct.

[Edit](#)

Changes Made to Your Health Issues

You verified that the information on file is correct.

[Edit](#)

Changes Made to Your Medications

You verified that the information on file is correct.

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Changes Made to Your Allergies

[Edit](#)

Which of the following have you been experiencing

Select all that apply.

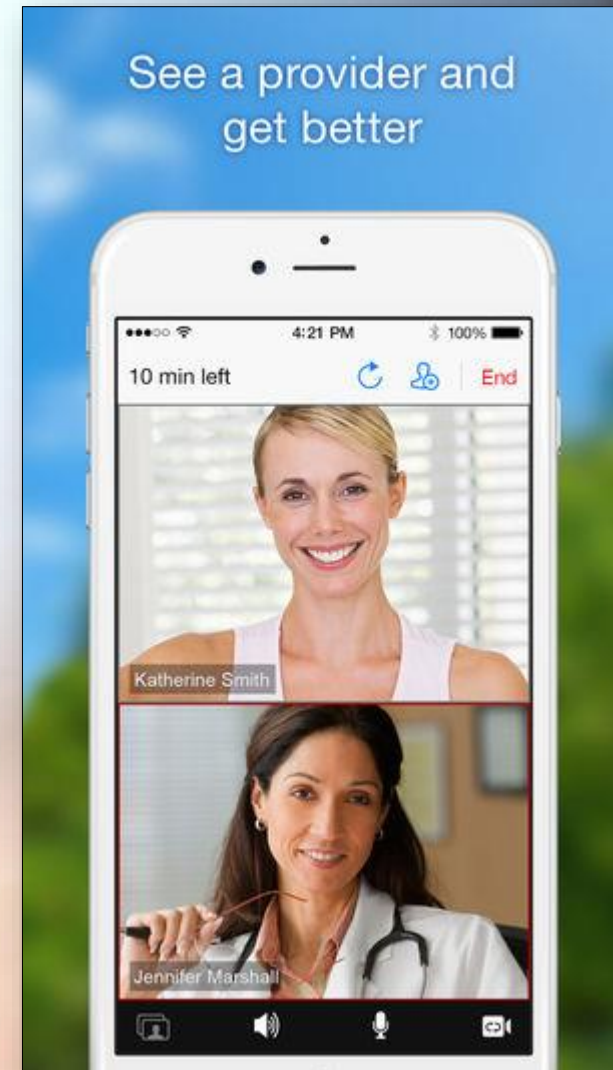
☒ One eye is red☐ Both eyes are red☒ Eye pain☐ Eye itching☐ Eye drainage or crusting☐ Increased tearing☐ None of the above

Have you had any of the following?

Select all that apply.

☐ Change in your ability to see which persists when your eyes are clean☐ Double vision☒ Severe eye pain☐ Allergy symptoms☐ Sore or scratchy throat☐ Cough☐ Runny nose or sneezing☐ None of the above☐ Yes, I have a low fever (less than 101 degrees)☐ Yes, I have a high fever (101 degrees or more)☐ No, I do not have a fever☐ I do not know[< Back](#)[Continue >](#)[Cancel E-Visit](#)

Video Visits



Specialty Consults

E - ICU



Specialty Consults

Tele-Neurology (Stroke)



Specialty Consults

Tele-Psychiatry



Specialty Care Telemedicine

Clinical Area	Teleservices/Benefits
Colon and Rectal Diseases	<ul style="list-style-type: none"> •Surgical management of colorectal cancer, diverticular disease, and inflammatory bowel disease. •Management of specific types of benign colorectal disease. •Offer convenient pre-op and follow-up care close to home.
Dermatology	<ul style="list-style-type: none"> •Inpatient and emergency consults for hospitals without dermatology coverage. •Timely transmission of images and clinical information. •Educational opportunities for residents and fellows.
Emergency Care and Trauma	<ul style="list-style-type: none"> •Timely trauma evaluations for patients in remote or rural areas. •Assistance with triage and transfer decisions. •Learning opportunities for community providers.
Intensive Care	<ul style="list-style-type: none"> •Efficient, team-based solutions for ICU shortages. •Proactive and individualized patient care. •Reduced ICU complication rates and length of stay.
Maternal-Fetal Medicine	<ul style="list-style-type: none"> •Remote consults and co-management of high-risk and at-risk obstetrical patients. •Early interventions to help prevent progression of obstetrical complications. •Increased chance of local delivery.

Clinical Area	Teleservices/Benefits
Ophthalmology	<ul style="list-style-type: none"> •Remote consults and test interpretations for hospitals without ophthalmology coverage. •Screenings for diabetic retina disease in PCP office. •Real-time image transmission and video display.
Pathology	<ul style="list-style-type: none"> •Remote consults via whole slide digital imaging and store and forward image transmission. •Real-time dynamic intraoperative consultations. •Immediate access to pathology experts through a secure consultation portal.
Pediatrics	<ul style="list-style-type: none"> •Enhanced provider and patient access to underserved pediatric subspecialties. •Decreased wait time, travel, and missed work and school days. •Remote learning opportunities for nurses and physicians at community hospitals.
Psychiatry	<ul style="list-style-type: none"> •Outpatient and inpatient telepsychiatric services to underserved, rural areas. •Consultation liaison services for hospitals without in-house psychiatrists. •Increased convenience and access to mental health services for patients.

Clinical Area	Teleservices/Benefits
Radiology	<ul style="list-style-type: none"> •Radiology support 24 hours a day, 7 days a week, 365 days a year. •Evening coverage for spine studies and all emergency department plain films.
Remote Monitoring	<ul style="list-style-type: none"> •Remote monitoring and proactive care for at-home patients. •Convenient management of chronic conditions. •Reduced hospital readmission rates, emergency room visits, and patient costs.
Rheumatology	<ul style="list-style-type: none"> •Identify rheumatologic diseases early •Manage chronic rheumatologic diseases •Provide necessary follow-up care
Stroke	<ul style="list-style-type: none"> •Live, two-way audio and video assessments of stroke patients. •Real-time consults on the use of IV tPA.
Surgery	<ul style="list-style-type: none"> •Preanesthesia and preoperative clearance prior to surgery. •Virtual rounding of inpatients with primary surgeon. •Postoperative follow-up care close to home.
Wound Care	<ul style="list-style-type: none"> •Remote consults for patients with poorly healing wounds. •Real-time transmission and review of images. •Reduced patient transfer rates.
Other Specialties	<ul style="list-style-type: none"> •Diabetes management •Neurology •And many more specialties...

Chronic Care Management



Chronic Care Management



Population Health

Mayo Clinic has been working to build a voice-enabled first-aid platform. **The platform incorporates 50 medical topics for consumers with low-acuity problems such as minor burns or insect bites to receive hands-free answers to first-aid questions.** They also created a chatbot on their website, a virtual nurse platform called Molly, that offers patients self-service symptom triage. **The nurse is a chatbot interface that runs symptom assessment algorithms and then recommends the appropriate healthcare services, with the aim of assisting patients at home, if possible.**



Making the Smart TV the center of health and medical care in the home



3 keys to getting telehealth investment right

Base investment decisions on market readiness—not national enthusiasm

- When planners begin considering a telehealth investment, the first question is often, "Which service line should we start with?" However, not all markets are equal on telehealth adoption status, so planners must first understand market readiness to decide on the right timeline.

Select telehealth applications based on existing system goals

- Organizations should next understand how telehealth investment fits into broader consumer, access, and care management goals—and which applications can help you reach these goals.

Root ROI metric selection in program ambition

- ROI is a financial measure – but it also serves as a gauge for how well your investment meets organizational goals. And as the goals underlying your proposed telehealth investment vary, the metrics you choose to measure ROI with will, too.

C-Suite Buy In

- Technology cost / integration
- Clinical / Nursing support
- Needs assessment
- Business plan
- **Physician champion**

Engaging Physicians

Robert M. Pearl, MD

Executive Director and CEO of The Permanente Medical Group

- **Communicate the “why.”** For most physicians, understanding the value for patients is what will drive them to change, not simply having new guidelines to follow. Physician-leaders who believe in telehealth must talk with their colleagues directly using real patients’ stories, which are more powerful than raw data.
- **Compensate accordingly.** Although physicians are mission driven, they also must earn a living. Physicians who practice in a fee-for-service environment need to be reimbursed for their time when they provide care through telehealth.
- **Keep it simple.** Physicians will not use cumbersome tools that slow them down. In national surveys, physicians report flawed IT as a major source of dissatisfaction in their practices.

Engaging Physicians

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- **Mind the workload.** Physicians are less likely to perceive telehealth as an added burden if these encounters are treated the same as in-person visits and doctors receive adequate support. That means, for example, having necessary staff available to assist during the visits.
- **Invest in the culture.** The Permanente Medical Group physicians use a shared, comprehensive EHR that is always available in their offices or from home. As a selfgoverning medical group, we make sure that physicians are well trained, supported, and rewarded for raising quality and providing personalized care.

Non-Physician development

- Utilize other clinical staff
 - Pharmacy medicine reconciliation
 - Community Paramedics provide home visits to chronic medical patients and frequent users of our ED
 - Schedule to take a pharmacist to a home for med reconciliation of total pharmaceuticals proscribed for patient
 - Rehabilitation, Social Work, Behavioral Health

Technology

- Internal development or turnkey vendor
 - Your EMR, interface or import info
 - Your providers – vendor providers
 - What “telemed” applications do you offer
- Public facing or organizational offerings
- Technology selection process
- Organizational development
 - Management, processes, procedures

Technology

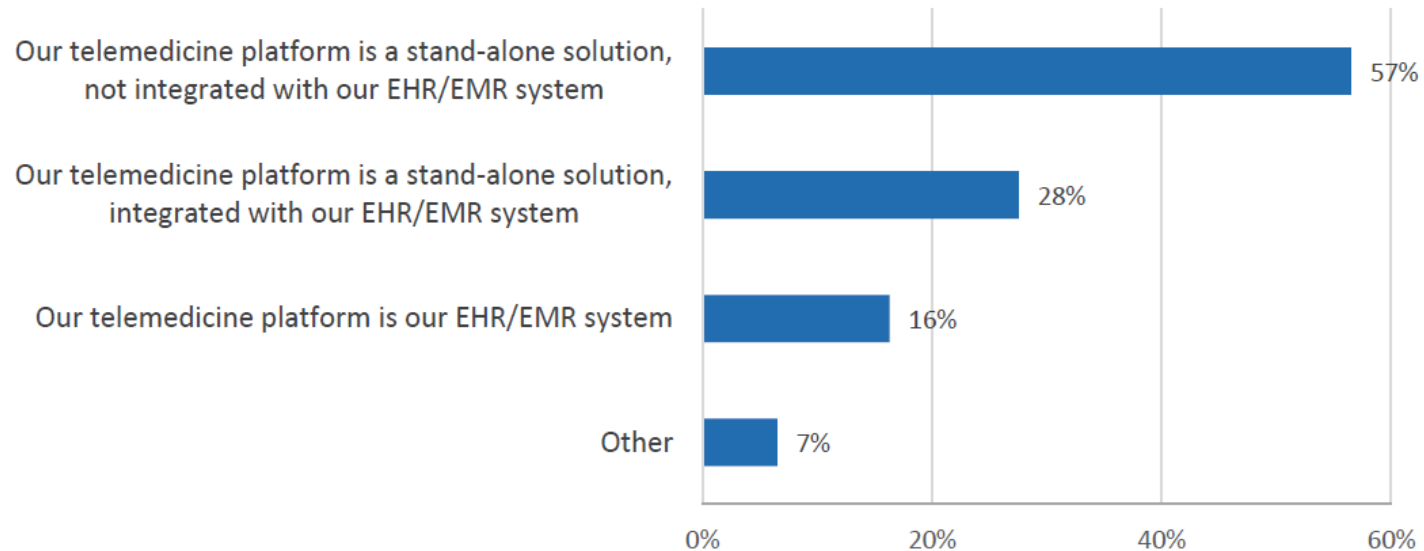
To integrate or not to integrate,
that is the question.

- Organizational mindset for other initiatives
 - Internal development or depend on contracted services
- Capabilities of your EMR
 - Tele-Virtual Health components or not?
- Experience of internal technical resources



Technology

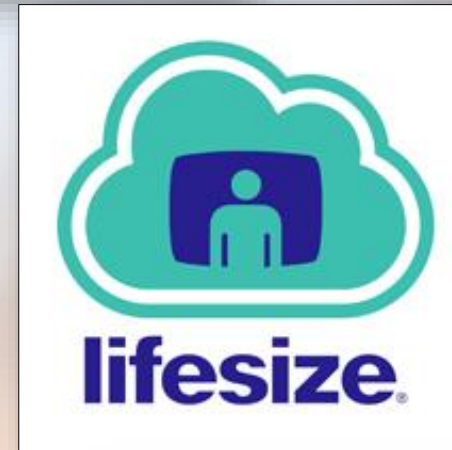
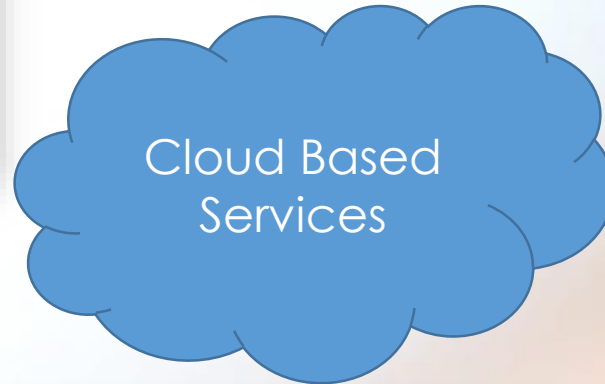
EHR/EMR System and Telemedicine Platform



Key Takeaways

- ⊕ These percentage breakdowns have remained virtually unchanged since 2015.
- ⊕ The notable dependence on standalone telemedicine platforms is likely a reflection of the ongoing EMR Challenges noted on page 12.

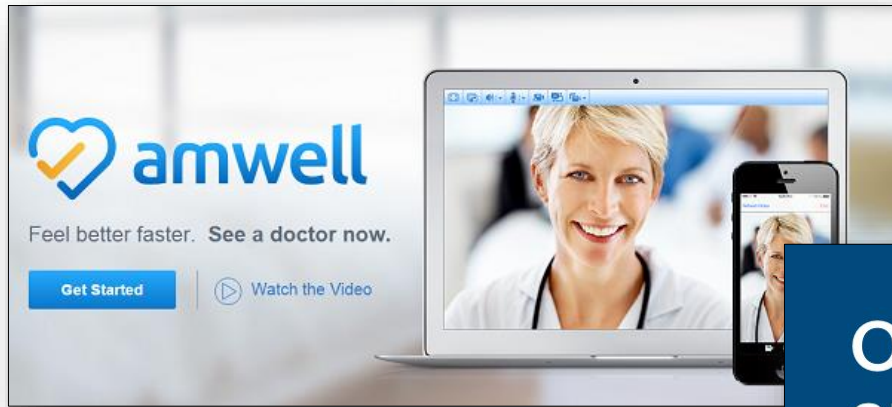
Service selection



Technology Options



Turnkey Options



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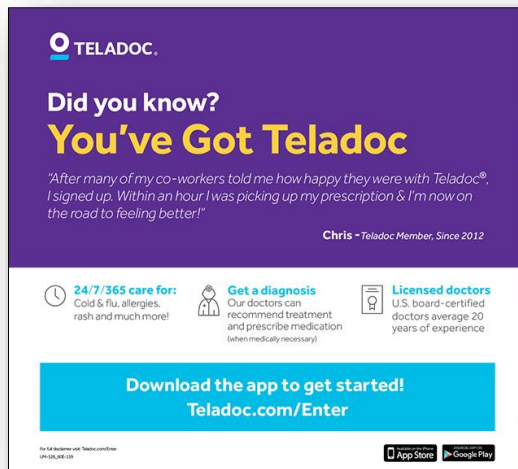
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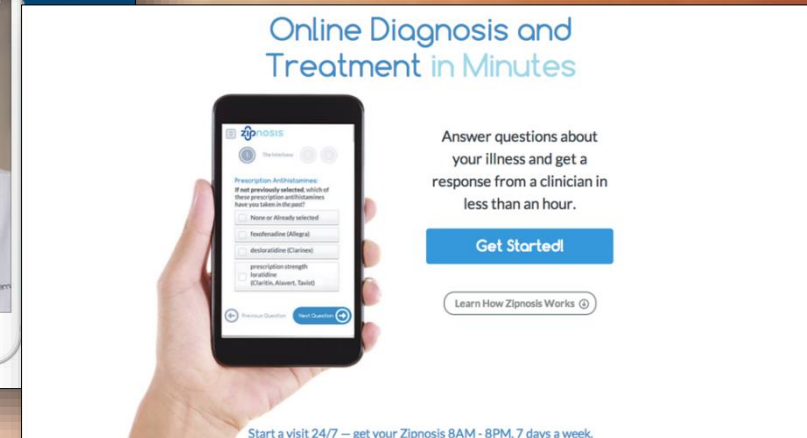
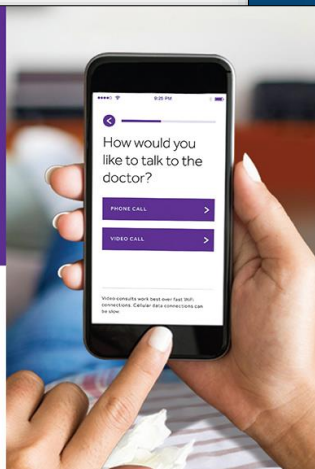
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In Conclusion

- Due diligence – strategic goals
- Physician involvement
- Technology selection
- Business planning – C suite

Questions?

