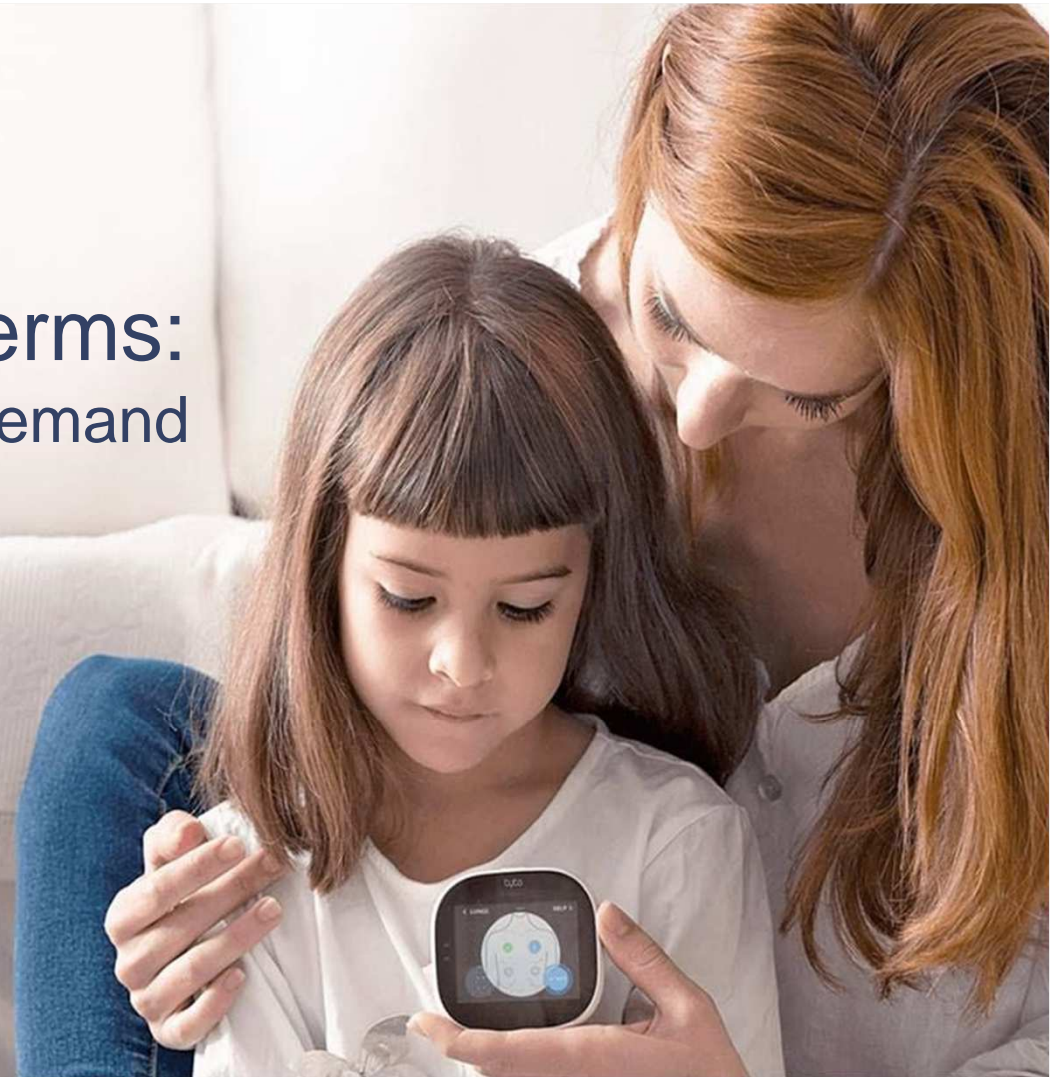




# Health Care on our Terms: Portable, App Driven & On Demand

Jeff Cutler, Chief Revenue Officer  
Tyto Care



Our world as consumers  
has changed drastically in  
the last 10 years....



We've gone from this.....



....to this.....

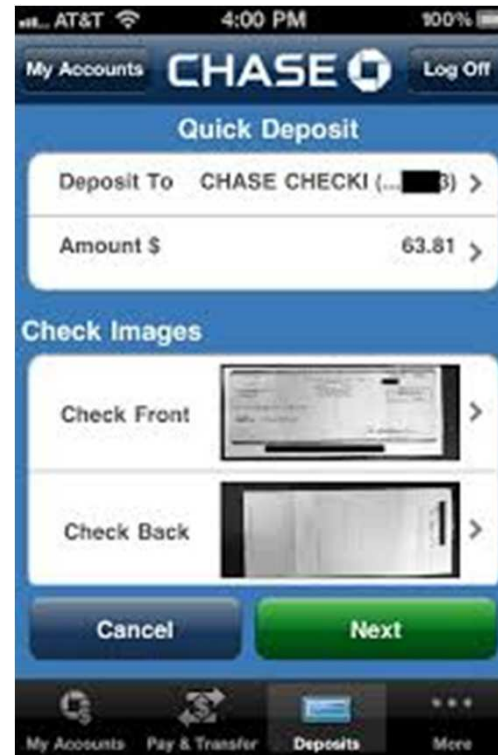
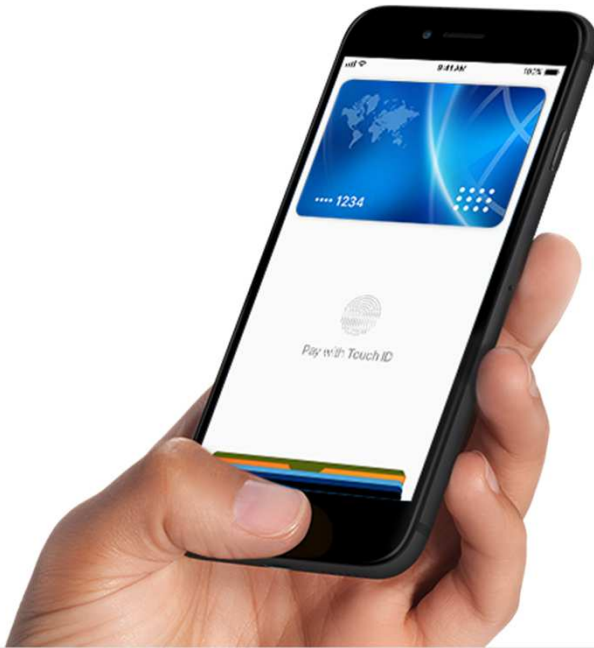




....and this.....



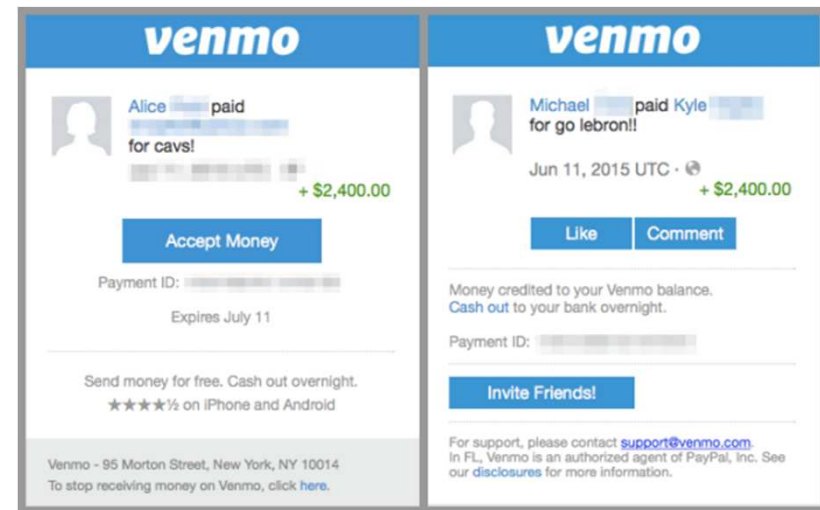
...to this.....



Even this...

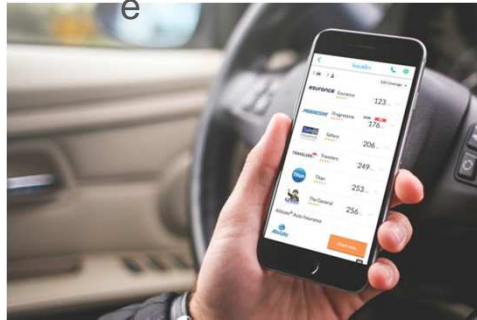


to this...

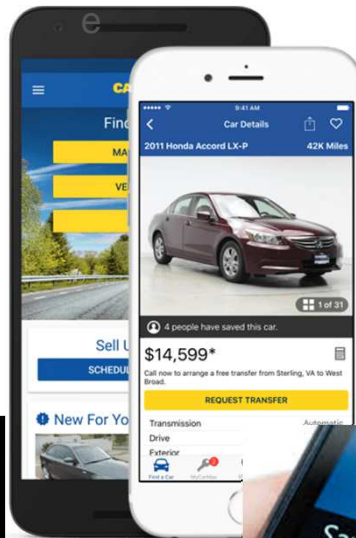


# Just about every industry has transformed

Insurance



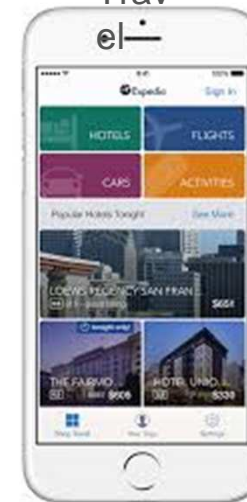
Automotive



Housing



Travel



Dating



Banking





# So why does health care still look like this?



# Consumerization: Business on our terms

App-driven

On-Demand

Always accessible

Transparency – Cost, Access, Quality

Convenient

Mass Personalization

Easy to use & access massive amounts of information

Trustworthy Brands

Fun & intelligent interfaces

Reduced costs

It's time for health care to get on board.....

# Healthcare is about to drastically change

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- Patient centric, on demand, and app driven
- Home exams, tests and diagnoses
- Improved access to doctors and healthcare data
- Increased transparency of cost, services, and quality of care

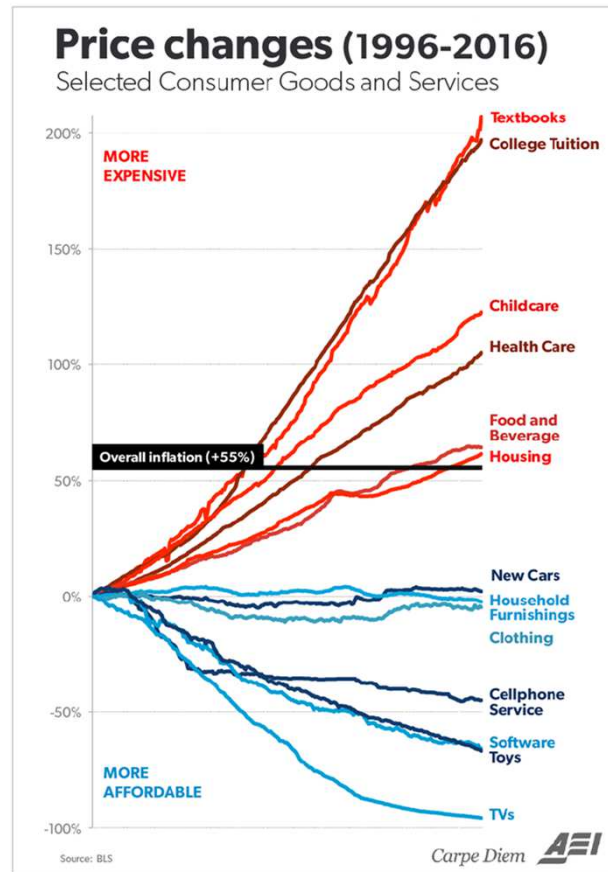
## Timing is right – the perfect storm

- Rising health care costs
- Shortage of doctors
- Consumer demand
- Technological advances



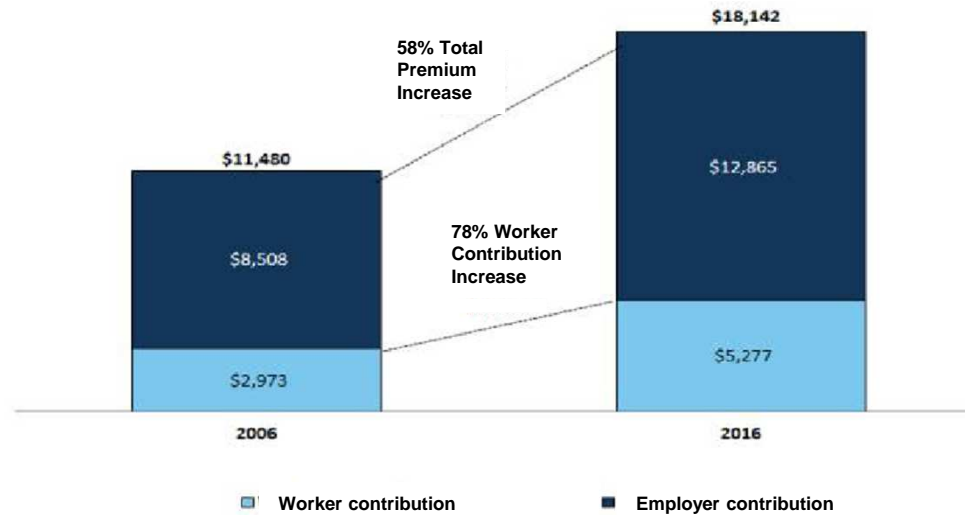


# Health care costs on the rise



# Workers paying more for insurance than ever before

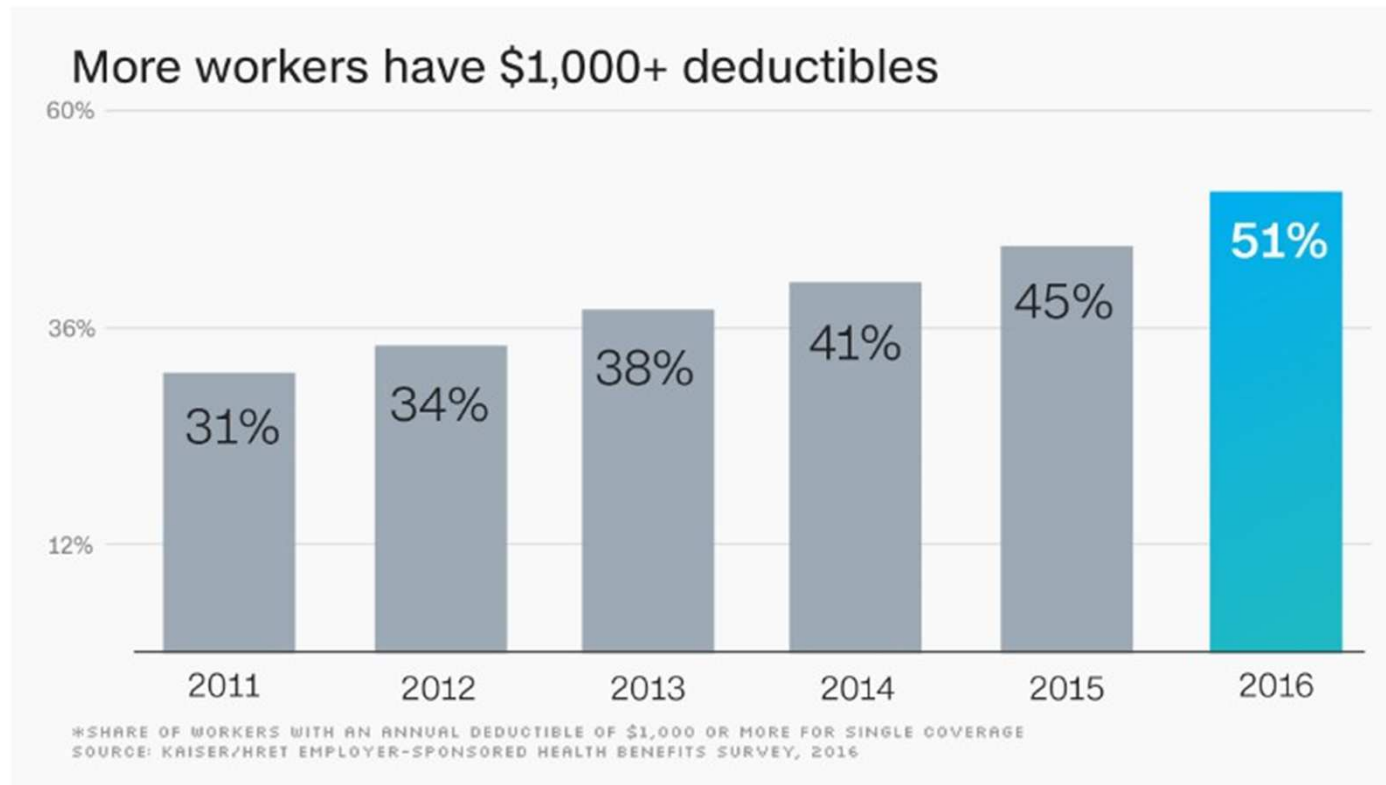
**Average Annual Health Insurance Premiums and Worker Contributions for Family Coverage, 2006-2016**



SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006-2016.

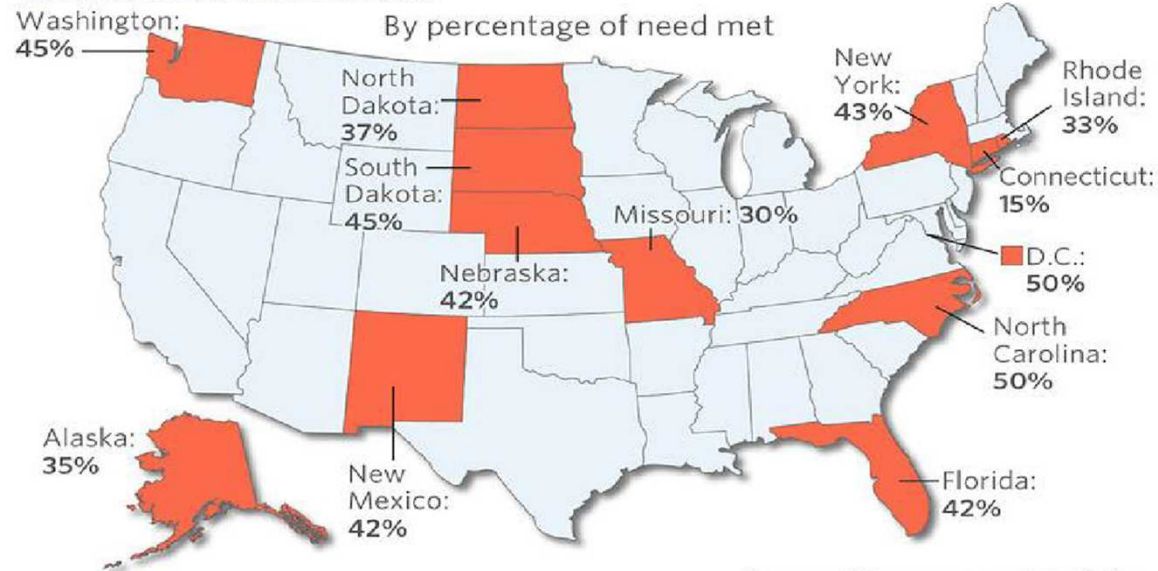


# 51% of employees now have \$1000+ deductibles



# Primary care shortage in U.S.

## The primary care doctor shortage across America

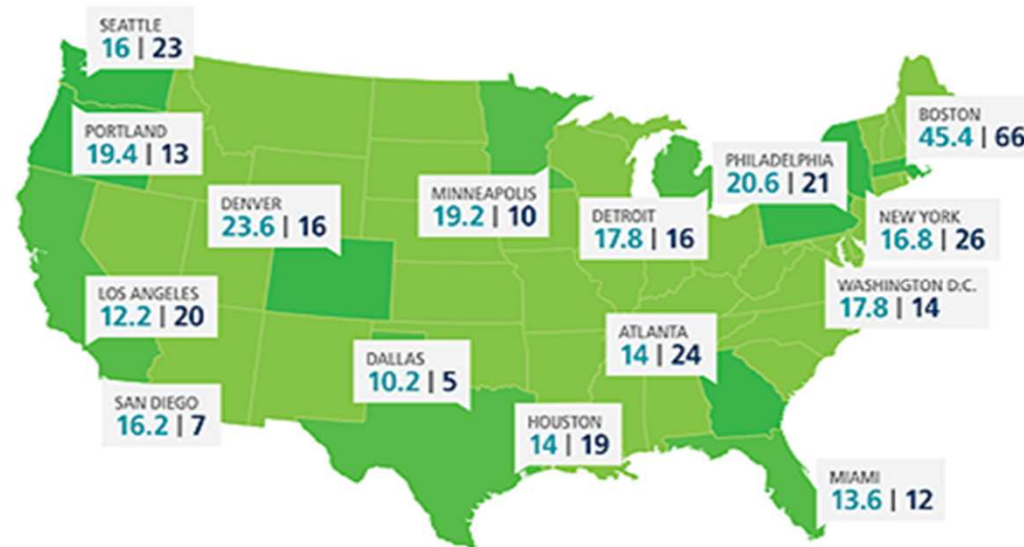


Source: U.S. government statistics



# Long wait times to see the doctor

- Average wait time in days to schedule an appointment with a physician in a family practice, cardiology, dermatology, orthopedic surgery, or obstetrics/gynecology
- Average wait time in days to schedule an appointment with a family physician



**CUMULATIVE WAIT TIME**  
**18.5** ALL SPECIALTIES | **18.5** FAMILY PRACTICE

Merritt Hawkins is the leading physician search and consulting firm in the United States and is a company of AMN Healthcare (NYSE: AHS). For additional information access [merrithawkins.com](http://merrithawkins.com) or call 800-876-0500.

# Health care: Ripe for consumerization

## Cost

- Copays vs High-Deductible plans
- More shift of cost to consumers
- How much does it cost?
- Savings Incentives

# Transparency: Access

## Access

- In Network?
- Accepting New Patients?
- Convenient Appointments?
- Are my health records accessible?

# Transparency: Quality

## Quality

- Outcomes – success, mortality rates
- Procedure Volumes
- Ratings
- Quality Scores



# Transparency tools

CASTLIGHT HEALTH

Welcome to Castlight, Jenna!  
Know the **cost & quality** of care before you go.  
Prices for doctors' visits and services vary. We'll help you find the doctor and price that's right for you.

Find a Doctor • Find a Service • Treat a Condition

Find a Doctor	Find a Service	Treat a Condition
Primary care \$46 - \$289	EKG \$21 - \$73	Earache \$135 \$708
Dermatologist \$81 - \$266	Phys. therapy \$15 - \$95	Pink eye \$133 \$447
Ob/Gyn \$107 - \$281	Lab test \$4 - \$77	Sore throat \$101 \$527

Your plan status

Deductible	Coinsurance	Covered
\$1800	\$4000	\$8000

Remaining deductible: \$2170  
Health Fund (HRA) balance: \$80

Current Phase: Deductible  
You are responsible for the full cost. After your family contributes \$4000 this year, you will have paid your family deductible and your plan will start to cover some costs.

Your Best Match

Hospital	SmartShopper Incentive	Member Rating (15)
Indiana University Health Tipton Hospital	\$500	4.8 Member Rating (15)
Indiana University Health Arnett Hospital	\$250	4.8 Member Rating (15)

Cost breakdown for Tipton Hospital:  
Your Expected Cost: \$5,051.90  
Total Procedure Cost: \$18,366 - \$20,340

About Me

Orthopedic Surgeon  
Dr. Charles Walker, MD  
Denver, CO

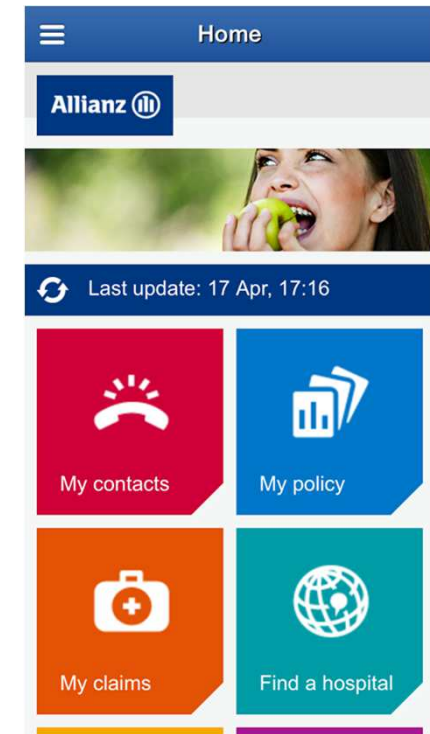
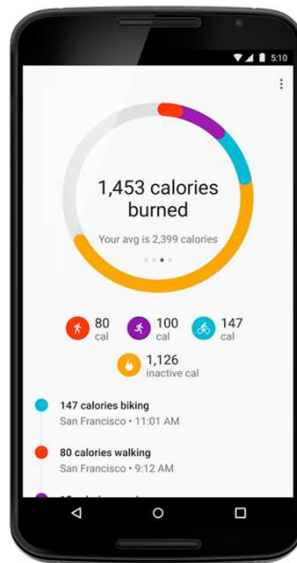
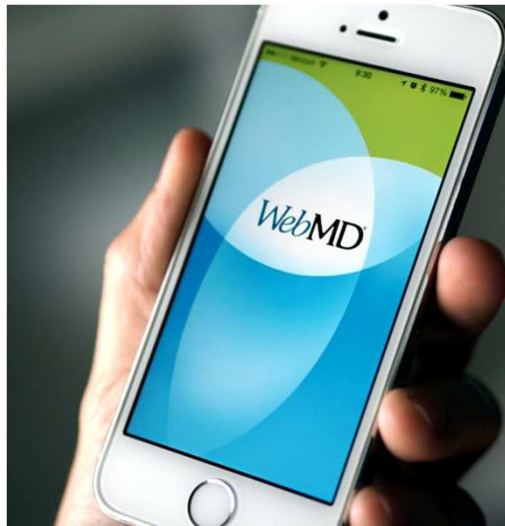
5 Stars  
23 responses

Request appointment

My Care Philosophy  
"I love my patients and will always do my best to provide them with the best care possible..."

Recent Comments about Dr. Walker from his patients:  
John in Denver, CO | Mar. 11, 2015  
"Dr. Walker was really great in communicating what type of treatment I needed to have to get rid of my knee pain..."

# Health and wellness apps

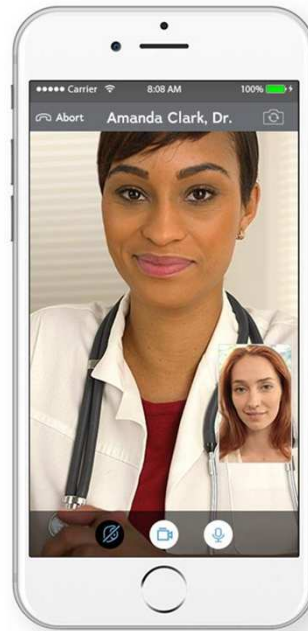


# What if....this was a reality?



# Telehealth: App-driven, on-demand, transparent

Telehealth advances over time, phone to video to home diagnostics



# What is telehealth?

- Telehealth encompasses a broad variety of technologies and tactics to deliver virtual medical, health, and education
- It can be clinician to clinician (professional) or clinician to patient (consumer)
- The desired outcome is better and more effective patient care



## How telehealth can help

- ✓ Monitor chronic, high risk, and post-op patients at home
- ✓ Provide remote exams and diagnoses to all of your patients
- ✓ Reduce leakage
- ✓ Reduce readmission rates
- ✓ Improve patient outcomes
- ✓ Reduce costs
- ✓ Improve staff utilization
- ✓ Increase patient satisfaction



# Where telehealth can help



## In the home:

- ✓ Urgent care
- ✓ Chronic care
- ✓ Mental health and wellness
- ✓ Elderly



## Health Systems:

- ✓ Chronic care mgmt.
- ✓ Radiology/stroke/cardio care
- ✓ Mental health
- ✓ Pediatrics
- ✓ Post-discharge/skilled nursing
- ✓ Schools



## In the workplace:

- ✓ Telehealth kiosks
- ✓ Home telehealth for employees



## Retail:

- ✓ Clinics
- ✓ Specialist consults



# Major telehealth platform technologies

Consumer (via direct, employer or health system)



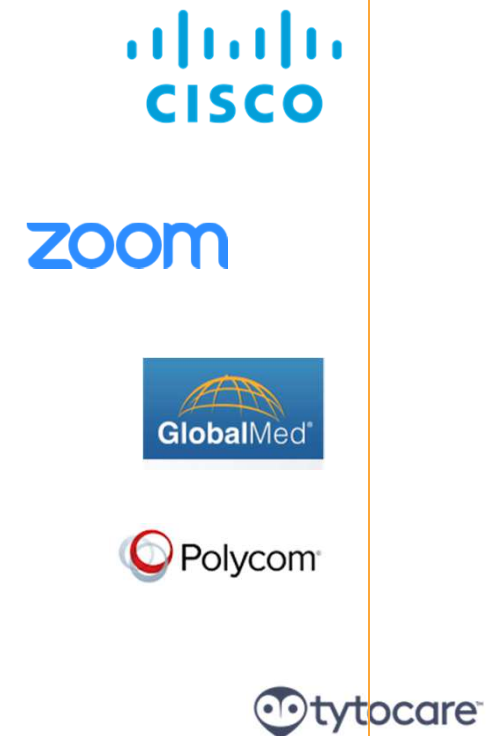
Carts / Peripherals



Telehealth platforms



Audio Video platforms



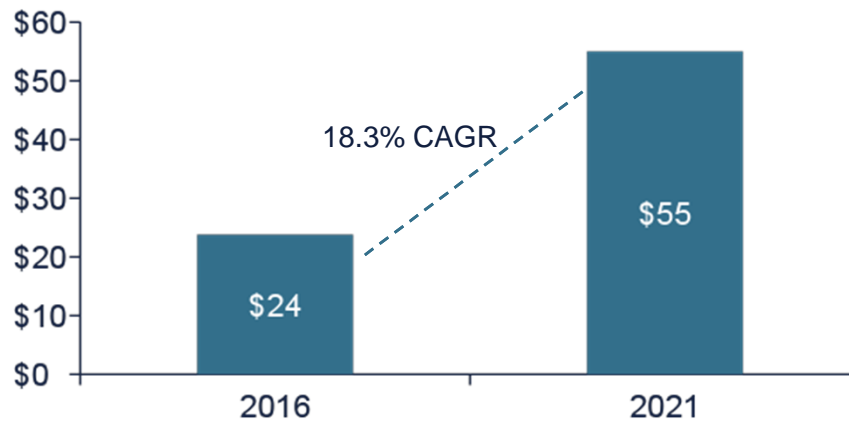
# Next generation – consumer connected devices



Single-use ↔ Temperature, Stethoscope, BP, SPO<sub>2</sub> Peak Flow ↔ Multi-use  
 Professional (Provider use in-clinic) & Consumer (Patient use @ home)

# Telehealth market expecting significant growth

**Global Tele-home & Tele-clinic market (billions)**



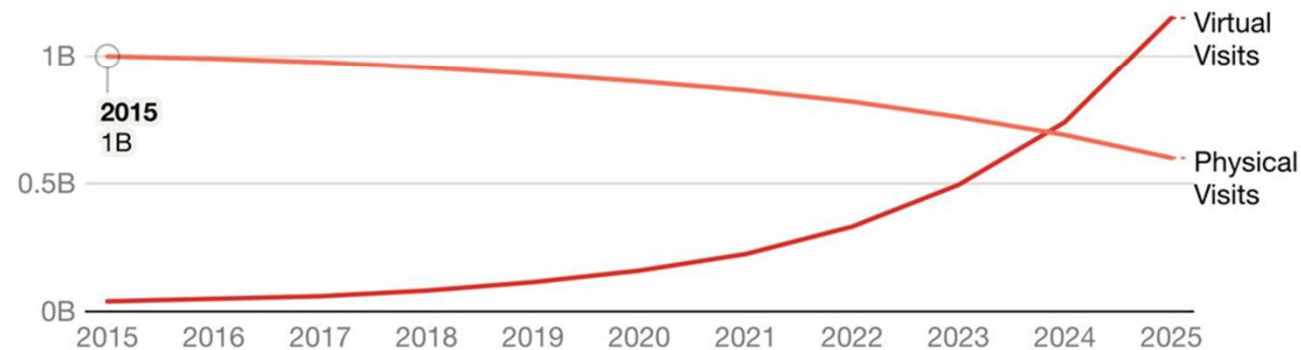
Growth drivers:

- Pressure to reduce costs and leverage expertise
- Value-based care
- Consumer push for convenience
- Technological innovations
- Expanded reimbursement coverage

# Virtual visits projected to surpass physical visits in future

## Projected Number of Office Visits, 2015 to 2025

Social forces, including the mobility of the nuclear family, the aging of populations, and the rapid adoption of technology are expected to expand the use of telemedicine visits.



# Recent headlines

## Kaiser CEO: Telehealth Outpaced In-Person Visits Last Year

52 percent of last year's patient transactions at Kaiser Permanente were conducted online, by virtual visits or through the health system's apps, CEO Bernard Tyson says.



## Telehealth policy changes mean big revenue opportunities for hospitals

Pending developments in government policy around access to virtual care and reimbursement for services delivered are opening doors for hospital executives.

## Telemedicine is about to get a huge boost from Medicare and Medicaid approval

A proposed rule in the Medicare Physician Fee Schedule in 2018 would cover expenses related to remote patient monitoring, potentially fast-tracking telehealth services.

By Conner Forrest | November 16, 2017, 7:05 AM PST

# Patients are ready to embrace telehealth

- ✓ 88% believe **working with their providers as a partner** will help with their health
- ✓ 84% believe **self-tracking with devices and apps**, and sharing it with their health team, would help manage their health
- ✓ 77% believe it would **help both of them – the provider and themselves**
- ✓ 76% say they'd **use an easy, accurate device**
- ✓ 81% of those would be **more likely to use one if it is recommended by their provider**

Source: Society for Participatory Medicine – Feb, 2016

# Interested in acute care and convenience

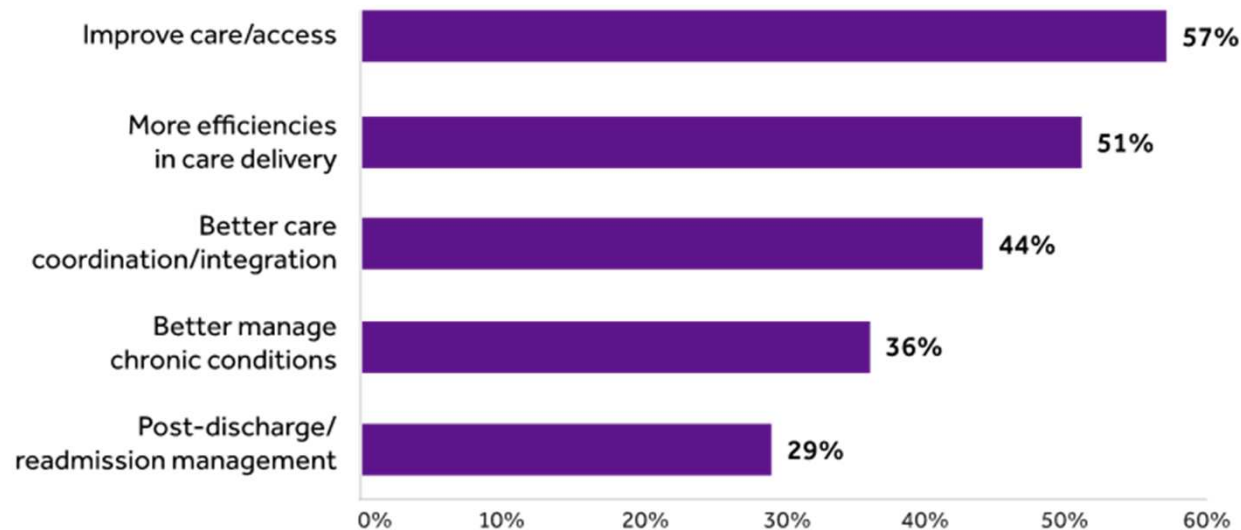
- Families are most interested in using telehealth for:
  - cold and flu (58%)
  - pink eye (51%)
  - rashes (48%)
  - well-child visits (41%)
- Convenience (80.7%) is prime reason for choosing online rather than in-office doctor visits
- Followed by immediate care vs. waiting for an in-office visit (53.4%) or after-hours (52.3%)

Source: Nemours consumer research, 2017



# Health system goals for consumer telehealth

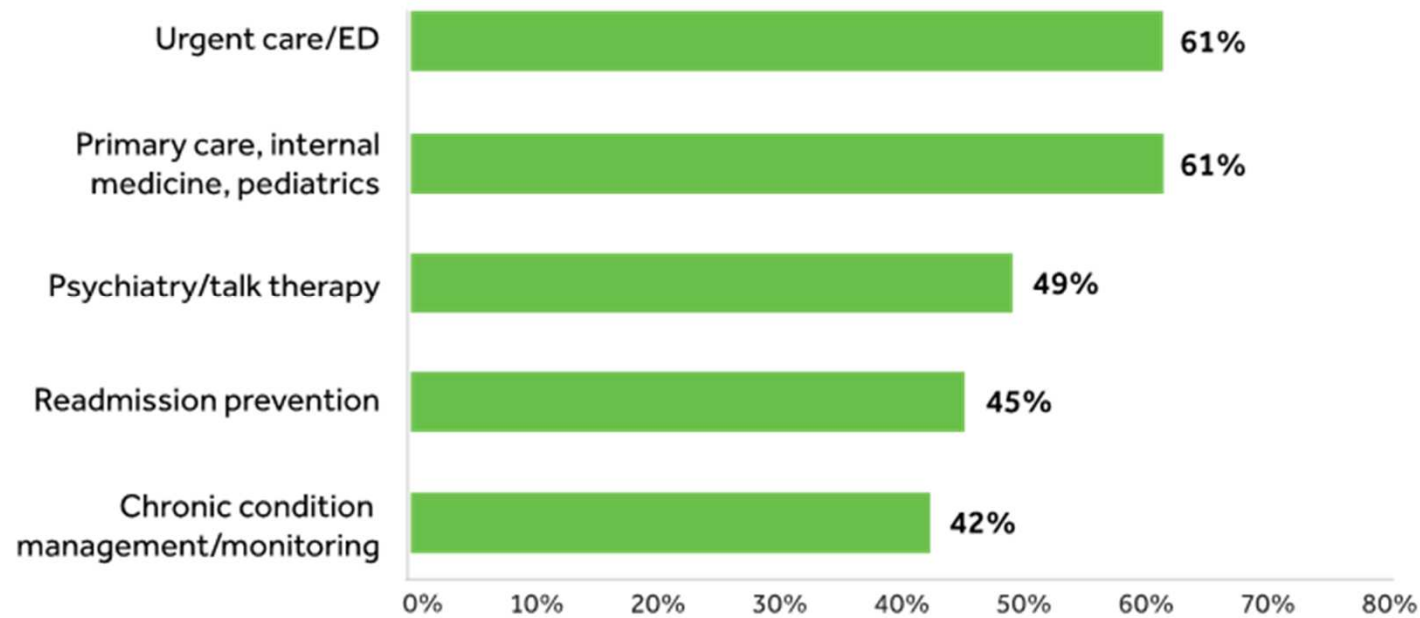
## Top Five Goals for Hospitals/Health Systems with Current Consumer Telehealth Programs



- 76 percent of hospitals have or will be implementing consumer telehealth by December 2018
- 69 percent of the organizations that already have telehealth are expanding their programs

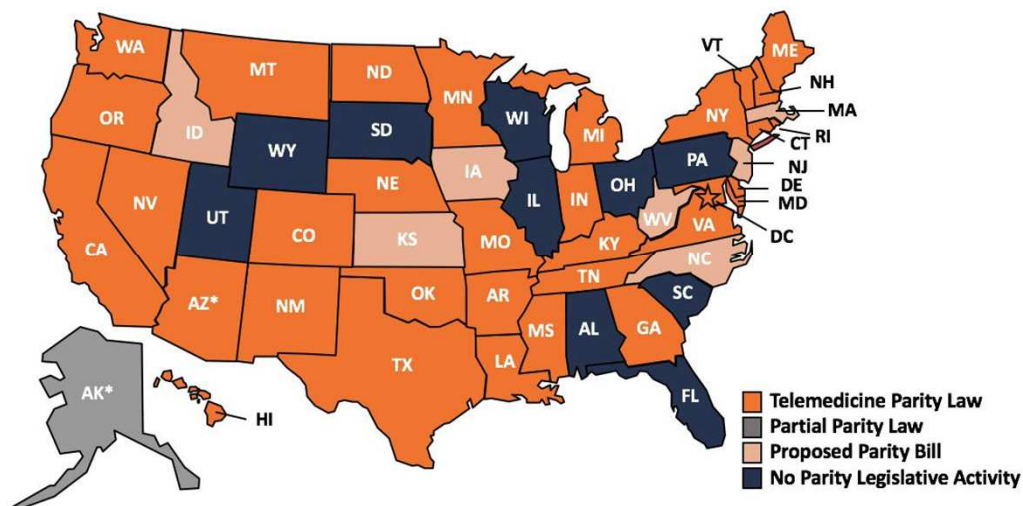
# Health systems – current usage

## Leading Telehealth Services Offered — Current Users



# Majority of states now have parity laws to cover telehealth

## States with Parity Laws for Private Insurance Coverage of Telemedicine (2017)



States with the year of enactment: Alaska (2016)\*, Arizona (2013)\*, Arkansas (2015), California (1996), Colorado (2001), Connecticut (2015), Delaware (2015), Georgia (2006), Hawaii (1999), Indiana (2015), Kentucky (2000), Louisiana (1995), Maine (2009), Maryland (2012), Michigan (2012), Minnesota (2015), Mississippi (2013), Missouri (2013), Montana (2013), **Nebraska (2017)**, Nevada (2015), New Hampshire (2009), New Mexico (2013), New York (2014), **North Dakota (2017)**, Oklahoma (1997), Oregon (2009), Rhode Island (2016), Tennessee (2014), Texas (1997), Vermont (2012), Virginia (2010), Washington (2015) and the District of Columbia (2013)

States with proposed/pending legislation: In 2017, Idaho, Iowa, Kansas, Massachusetts, New Jersey, North Carolina, and West Virginia

\*Coverage applies to certain health services.

# Employers see telehealth as a way to reduce costs

- ✓ In 2015, 48% of large (5k+) employers offered telehealth; in 2017 projected up to 90%
- ✓ Employers could save up to \$6 billion annually through remote consults for non-urgent primary care visits
- ✓ Average cost of telehealth visit is \$50 compared to \$160 for urgent care visit or \$650 for ER
- ✓ Effective use could reduce physician office visits and ER visits by 15% and urgent care visits by 37%
- ✓ Millennials are attractive target as they make up more than half of workforce

Source: urac.org

# Critical offerings

- ✓ HIPAA Compliance
- ✓ Secure data storage
- ✓ EHR integration
- ✓ Video platform (many telehealth visits still done via phone)
- ✓ Value-added services
  - Customizable scheduling & reporting
  - Clinical programs (e.g. wellness, chronic care, smoking cessation)
  - Usage and retention
- ✓ Expanding into diagnostic tools/lab testing/monitoring devices (in the home)

# Telehealth usage has been limited...

> 70% of consumers have access to telehealth but

< 5% utilization

## Why?

- ✓ Phone or video only
- ✓ Limited ability to examine patient remotely
- ✓ Lack of trust (doctor and patient)
- ✓ Lack of proof telehealth works



# Key question remains – how to replicate this at home?





# TytoCare – comprehensive exams, anytime, anywhere



- ❑ Comprehensive medical exams anyone can perform
  - ✓ Innovative navigation & guidance capabilities
  - ✓ “Exam & Forward” or Live Telehealth Exam
  - ✓ Digital camera, otoscope, stethoscope, and thermometer



- ❑ Open APIs
- ❑ EHR integration
- ❑ HIPAA compliant

# Addressing the most common primary care & chronic conditions



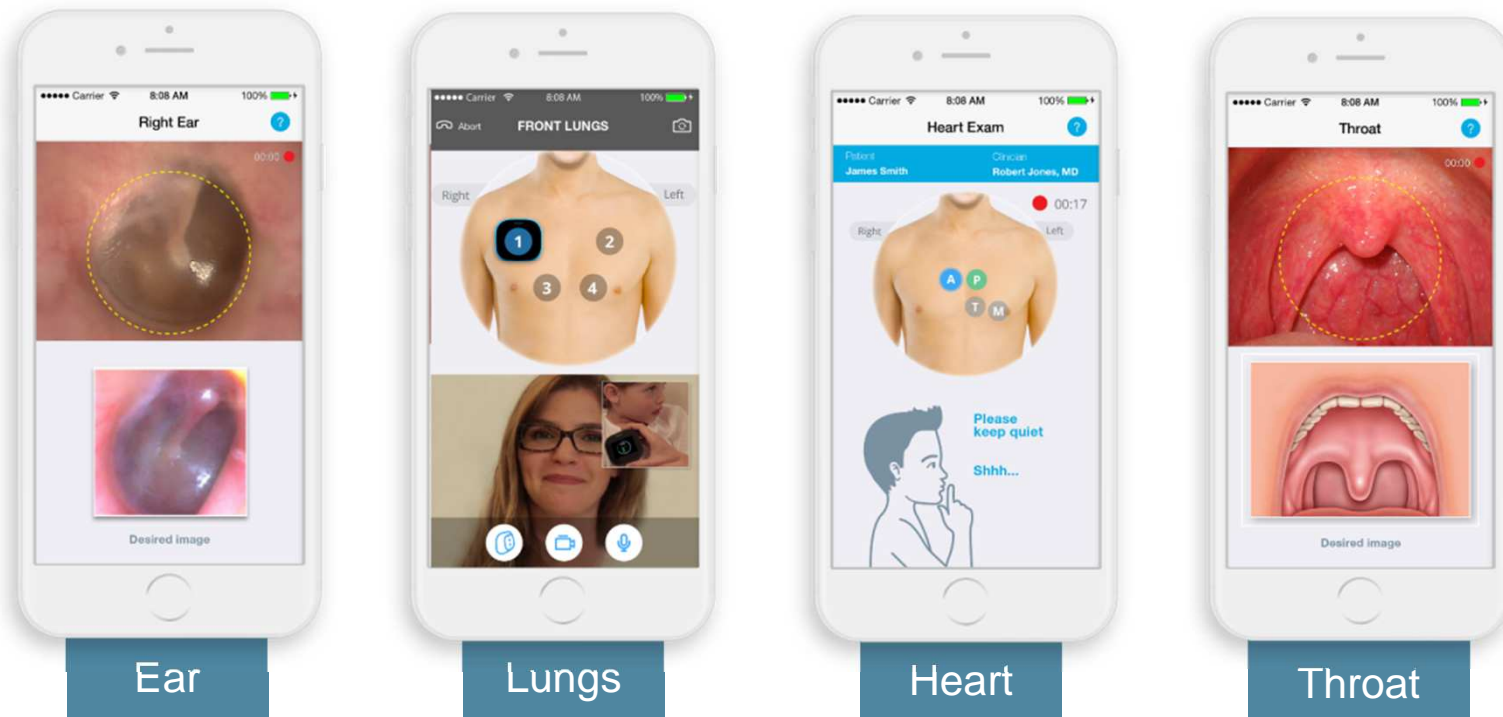
- Upper respiratory infection
- Cough
- Bronchitis
- Whooping Cough
- Sinus infections

- Otitis media (ear)
- Sore throat
- Flu
- Contact dermatitis
- Fever

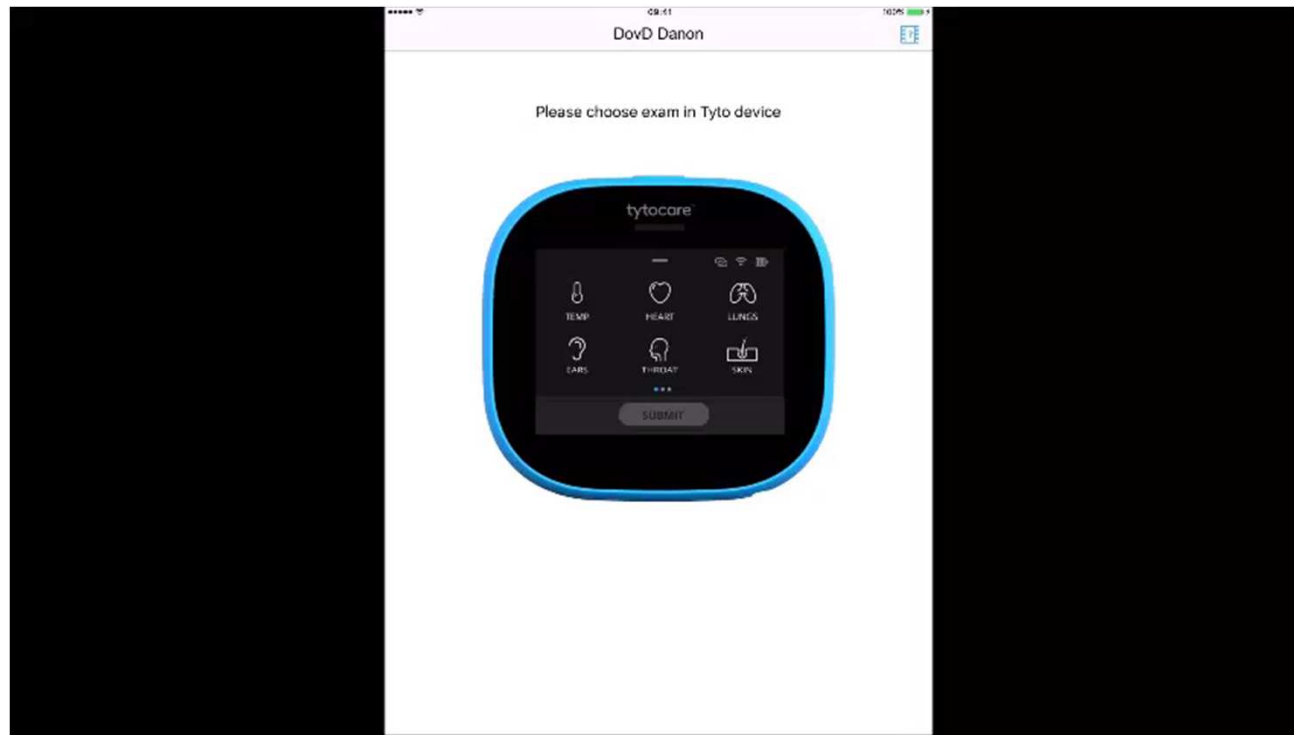
- Pneumonia
- Vomiting/diarrhea
- Constipation
- Wound care
- Eczema & rashes

- Asthma
- COPD
- CHF
- Elderly
- Disabled
- Complex care

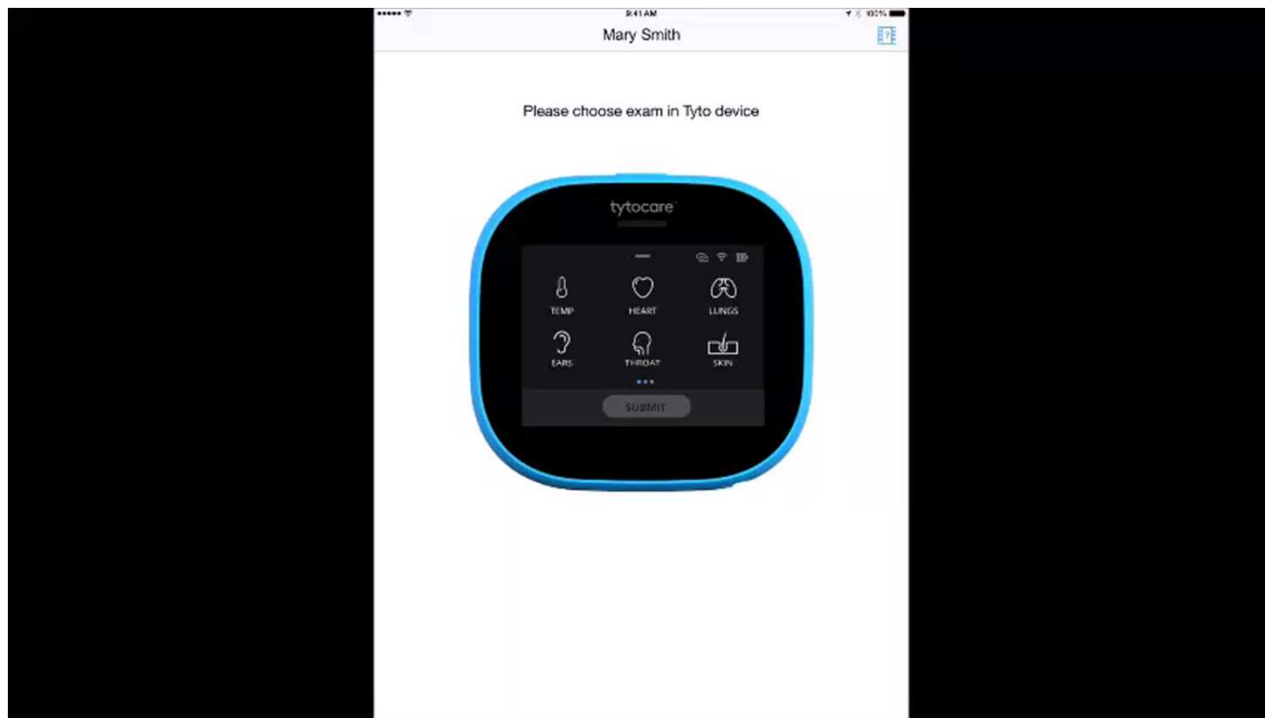
# How it works: Exam and forward with guidance



# Guided ear exam

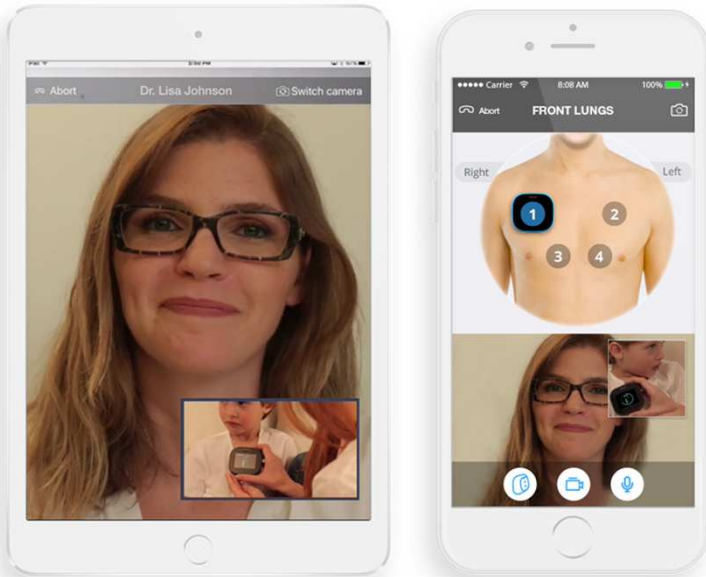


# Guided heart exam

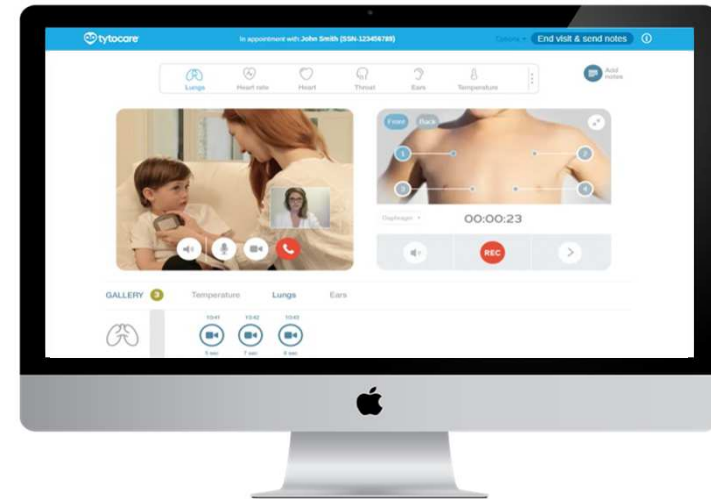


# How it works : Live telehealth examination

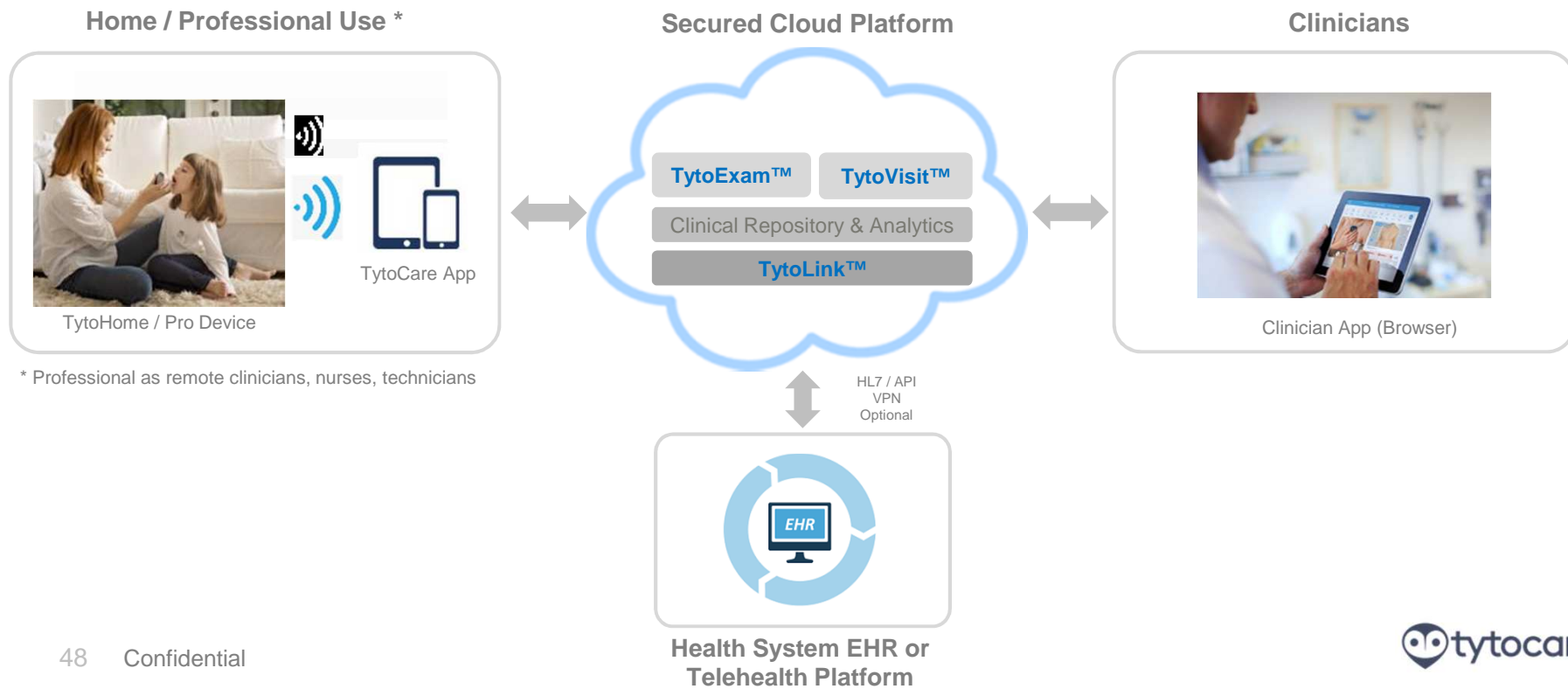
## Patient View



## Physician View



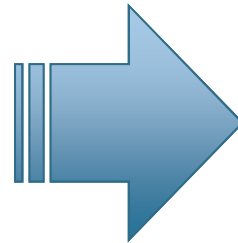
# Complete cloud-based telehealth solution





# New patient-centric experience – now possible!

Sickness takes hold

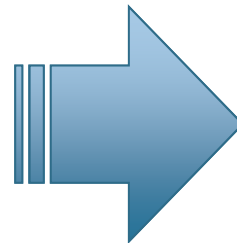
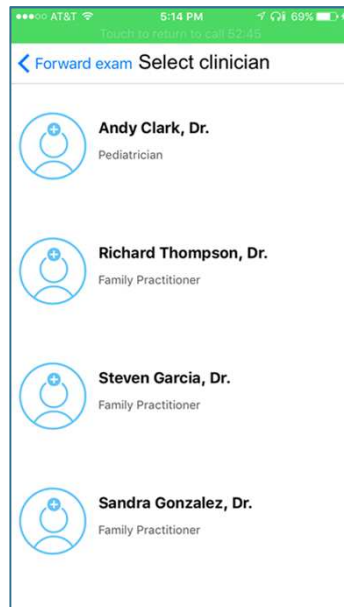


Capture exam data at home using connected devices

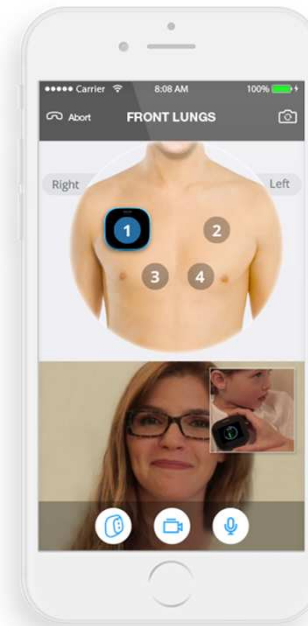


# New patient-centric experience – now possible!

Choose doctor with complete transparency

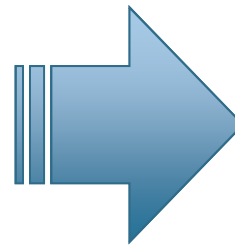
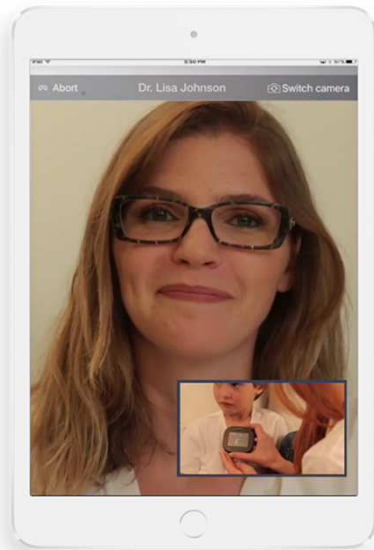


Conduct live remote exam with doctor



# New patient-centric experience – now possible!

Doctor send script if needed & EHR updated



Rx

Family spared late night visit to ER



# The future is now...Questions?

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Join us in changing how  
healthcare is delivered

*Jeff Cutler | CRO*  
*[Jeffc@tytocare.com](mailto:Jeffc@tytocare.com)*

