Trends in Telehealth
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Amy Clark
Vice President, Strategic Partnerships - MDLIVE

Atul Singh
Director, Digital Health - Walgreens
Learning Objectives

Upon completion of the activity, participants should be better able to:

1. Define the terms telehealth and telemedicine
2. Explain the role that telehealth plays in the community pharmacy
3. Assess the implementation of telehealth services in a community pharmacy setting
The speakers in this presentation report no actual or potential conflicts of interest associated with this presentation.
Quiz time…

Pope Benedict’s inauguration in 2005
Notice anything different?

Pope Francis’s inauguration in 2013
Mobile Adoption


- Mobile Internet Users
- Desktop Internet Users

Source: Morgan Stanley Research
Telehealth vs Telemedicine

**Telehealth** is the use of electronic and telecommunications technologies to deliver clinical health services and non-clinical services such as provider training, administrative meetings and medical education¹.

**Telehealth** is **NOT** a specific service but a collection of means to enhance care and education delivery².

**Telemedicine** refers specifically to delivery of remote clinical services.

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¹ Health Resources Services Administration
² [http://cchpca.org/](http://cchpca.org/)
# Telemedicine Modalities

| Synchronous | - Real-time, two-way interaction between a patient and a provider  
<table>
<thead>
<tr>
<th></th>
<th>- Examples: Episodic primary care, Urgent care</th>
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</table>
| Asynchronous| - Transmission of patient’s medical information through electronic communications to a provider for diagnosis and treatment  
|             | - Examples: Teledermatology, Teleradiology, Telepharmacy |
| Remote Patient Monitoring | - Data from wearables, biometric devices and sensors sent to a central hub so the patient can be monitored remotely  
|             | - Example: Chronic disease management (Heart Rate, Blood Glucose Monitoring) |
| Provider to Provider | - Reduces avoidable patient transfer from one provider to another. Access to specialist expertise for diagnosis or second opinion  
|             | - Examples: TeleICU, Telepsychiatry, Telestroke |
Telemedicine Platforms

- Majority of the direct-to-consumer virtual visits today are done telephonically.
- Used primarily for asynchronous telemedicine.
- Fastest growing segment that is fueling the growth around direct-to-consumer telemedicine.
- Typically installed in retail locations for walk-in customers to access healthcare providers.
- Used primarily for RPM to reduce ED visits and re-admissions. Market size is $46B.
# Telemedicine Landscape

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pure Play</strong></td>
<td>Offer telemedicine platform and have a provider network. MDLIVE, Teladoc, AmericanWell, DoctorOnDemand, etc.</td>
</tr>
<tr>
<td><strong>Health Plans</strong></td>
<td>Either build their own in-house solutions or partner with pure play telemedicine providers</td>
</tr>
<tr>
<td><strong>Health Systems</strong></td>
<td>With shift to value based reimbursement, health systems are offering this capability to their patient population</td>
</tr>
<tr>
<td><strong>Retail Clinics</strong></td>
<td>Lower cost and convenient access to episodic primary care</td>
</tr>
<tr>
<td><strong>B2B Players</strong></td>
<td>Suppliers providing technologies, software and devices to facilitate telemedicine interactions</td>
</tr>
</tbody>
</table>
Global Telehealth Market is set to expand tenfold by 2018

Source: IHS analytics report and press release
Trends in Telemedicine

45,000 PCP shortage by 2020

U.S. Department of Health and Human Services estimates

80% of adults utilize ER for non-emergency conditions due to lack of other providers

National Averages

ER visits average $1,572
Urgent Care average $163
PCP visits average $142

Average wait times average 1+ Hours
Primary Care Physician appointments take up to three weeks to schedule.

Source: 1. MDLive 2. Cisco Cust Exp for Healthcare 2013. 3. CDC Estimates
Lack of Access to Care

- 62 million people lack access to adequate healthcare
- By 2020 there will be shortage of 45,000 Primary Care Providers

Rising Healthcare Costs

- Rise in High Deductible Health Plans
- Patients delaying care due to lack of access leading to costly complications or readmissions
Demand driven by multiple stakeholders

Patients
- Motivated by convenience and lower cost options

Health Systems/Providers
- Shift to value-based reimbursement

Regulatory Environment
- FSMB Compact helps support interstate medical practice
- Recent positive development in Medicare/Medicaid regulations vary widely
- Parity laws require comparable coverage and reimbursement for telehealth
Medicaid and Commercial Payer Coverage

- 48 states and the District of Columbia now provide Medicaid reimbursement for telehealth services.
- 32 states and the District of Columbia have private payer policy
- Parity Policies: Health insurers are required to cover services delivered remotely via telemedicine at the same rate as the equivalent in-person service

Telepharmacy - Telemedicine in Community Pharmacy

- Convenient and cost effective access to pharmacist care for remote/rural population

- Delivering patient counseling, refill authorizations, formulary compliance, MTM, CMR

- Implementation across US started in 2000. Implementation models vary by state

- Pharmacists either join the care team or establish Collaborative Practice Agreement with prescribers

- Grow market share by offering virtual visits, optimize capacity and reduce cost

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Continuum of Care

Virtual Visits

Pharmacy Chat

Episodic

Transactional

Remote Monitoring

Chronic
Delivering care when & where it’s most convenient

Skip the waiting room and see a doctor right away in a live video call.

Service Provided by MDLIVE

Cost is eligible as an FSA/HSA expense but is not currently covered by most insurance plans.

Commonly used for:
- allergies
- sinus/ear infections

Start Consultation

$49 per visit
12 min average wait

See a Doctor Virtually with MDLIVE

Skip the waiting room
SEE A DOCTOR

$49 per visit

Next time skip the waiting room. Video chat with a U.S. board-certified physician who can treat common illnesses like sinus and ear infections, sore throats, and skin problems, 24/7. Doctors can even write prescriptions, if necessary.
Walgreens Telemedicine Program

- Launched in 2014 in partnership with MDLIVE
- Live in 37 states plus Washington D.C.
- Direct to consumer at $49
- Offered via Walgreens mobile app and website
- Episodic primary care, Urgent care, low acuity conditions
- Expanded to smoking cessation and mental health
- NTT patient counseling
- Telepharmacy services – Pharmacists chat
## Healthcare Cost Savings

<table>
<thead>
<tr>
<th>Category</th>
<th>Precent of Patients</th>
<th>Encounters</th>
<th>Cost</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Room</td>
<td>4%</td>
<td>40</td>
<td>$1,572</td>
<td>$62,880</td>
</tr>
<tr>
<td>Urgent Care Center</td>
<td>51%</td>
<td>510</td>
<td>$163</td>
<td>$83,130</td>
</tr>
<tr>
<td>PCP</td>
<td>21%</td>
<td>210</td>
<td>$142</td>
<td>$29,820</td>
</tr>
<tr>
<td>Retail</td>
<td>17%</td>
<td>170</td>
<td>$88</td>
<td>$14,960</td>
</tr>
<tr>
<td>Other/ No Treatment</td>
<td>8%</td>
<td>80</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Program Savings per 1000 visits</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$190,790</strong></td>
</tr>
</tbody>
</table>

Source: Walgreens & MDLIVE data
Reducing overall healthcare costs by $300B+

Centralized care facilities increase costs exponentially

Keeping patients out of the hospital and in alternate care sites to reduce cost

Hospital of the future – enabled by telehealth

Source: Goldman Sachs Global Investment Research – June 2015
Telemedicine is not a new concept....
Amy Clark
Vice President, Strategic Partnerships
MDLIVE®
## Multiple Access Points

### By Phone

<table>
<thead>
<tr>
<th>Step 1: Call Toll-Free</th>
<th>Customer visits our website and logs in using their username and password.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Speak with a Care Coordinator</td>
<td>A care coordinator evaluates the patient to determine if telehealth is appropriate and redirects the patient to a doctor if appropriate.</td>
</tr>
<tr>
<td>Step 3: Speak with the Doctor</td>
<td>Once an available provider is located, our system automatically calls and connects the doctor to the customer.</td>
</tr>
</tbody>
</table>

### By Video Conference/Kiosk

<table>
<thead>
<tr>
<th>Step 1: Visit Website</th>
<th>Customer visits our website and logs in using their username and password.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Find a Doctor</td>
<td>Our system helps the customer determine if telehealth is appropriate. Searches for a provider using criteria, such as specialty, language, gender, location, or simply find the next available doctor.</td>
</tr>
<tr>
<td>Step 3: See the Doctor Online</td>
<td>Once an available provider is located, our system automatically connects the doctor to the customer via our online portal.</td>
</tr>
</tbody>
</table>

### By Mobile App

<table>
<thead>
<tr>
<th>Step 1: Open Mobile App</th>
<th>Customer opens mobile app and logs in using their username and password.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Find a Doctor</td>
<td>Our system helps the customer determine if telehealth is appropriate. Searches for a provider using criteria, such as specialty, language, gender, location, or simply find the next available doctor.</td>
</tr>
<tr>
<td>Step 3: See the Doctor On Your Smartphone</td>
<td>Once an available provider is located, our system automatically connects the customer to the doctor via their smartphone.</td>
</tr>
</tbody>
</table>
After the Appointment...

Engagement CONTINUES

**Discharge Patient**
Discharge instructions are sent to patient via patient portal and secure email.

**E-Prescription**
Prescriptions are e-prescribed or called in directly to patient’s pharmacy of choice.

**Update EHR**
Updates are made to patient’s Personal Health Record.

**Notify PCP**
Consultation history and SOAP notes are sent directly to patient’s PCP.
Market Demand for Telehealth

Pressures on both the demand and supply sides of healthcare are driving shift

<table>
<thead>
<tr>
<th>Demographic shift putting significant pressures on the demand side for healthcare in the US...</th>
<th>... while provider shortages and access pressures are creating challenges on the supply side</th>
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</thead>
<tbody>
<tr>
<td>3M</td>
<td>Baby-boomers hitting retirement age every year over the next 20 years</td>
</tr>
<tr>
<td>1/3</td>
<td>Proportion of adults that are obese (CDC)</td>
</tr>
<tr>
<td>30M</td>
<td>US diabetics (American Diabetes Assoc.) – 86m are pre-diabetic (CDC)</td>
</tr>
<tr>
<td>1.7M</td>
<td>Cancer cases that were diagnosed in 2014 (American Cancer Society)</td>
</tr>
<tr>
<td>0.7M</td>
<td>People who have a heart attack each year; 0.5m will have their first (CDC)</td>
</tr>
<tr>
<td></td>
<td>Average number of days it takes to see a PCP</td>
</tr>
<tr>
<td></td>
<td>Of US population living in areas with insufficient PCP coverage (Human Resources and Services Administration)</td>
</tr>
<tr>
<td>19.5</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Projected shortage of PCPs by 2020 (Association of American Medical Colleges)</td>
</tr>
<tr>
<td></td>
<td>Increased number of home care providers needed by 2020 (Bureau of Labor Statistics)</td>
</tr>
<tr>
<td></td>
<td>45,000</td>
</tr>
<tr>
<td></td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: The Advisory Board Company, CDC, American Cancer Society, BLS
Consumer Adoption of Telehealth

Continues to gain momentum as patients actively balance cost and quality of care

US Consumers willingness to join a video visit with a provider (2015)

- 36% Willing
- 64% Not Willing

US Consumer Sentiment: How much should online visit costs compared to in-person visit? (2015)

- 62% About the same
- 22% More
- 11% Less
- 5% Not sure

Analysis

- **Telehealth acceptance on the rise:** More consumers view telehealth as a viable alternative to traditional in-person visits
- **Telehealth from access to value:** As consumer acceptance gains momentum, telehealth will be evaluated in terms of value more than access, making service pricing key to the growth of the Direct-to-Consumer segment
- **Patient journey unlikely to change:** Consumers of telehealth services will need to be seamlessly integrated into the familiar payor/provider constructs (access, reimbursement, etc.) to drive utilization

"To crack the code (on telehealth): consumer health brand, right price point, and convenience!"

Senior Executive, Large Retailer

Source: The Advisory Group
# Telehealth Product Expansion

Product growth will come from specialized offerings and SaaS platforms

<table>
<thead>
<tr>
<th>Low Acuity Virtual Visits</th>
<th>Infrastructure/SaaS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Market entry point for telehealth providers</td>
<td></td>
</tr>
<tr>
<td>• Leads to commoditization</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic Care Delivery (CCD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Controlled by health systems will control the majority</td>
</tr>
<tr>
<td>• SaaS can integrate into their overall technology and clinical models</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dermatology will be among the leading telehealth specialty</td>
</tr>
<tr>
<td>• Also led by health systems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavioral</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Largest predicted revenue pool</td>
</tr>
<tr>
<td>• Specialty providers and ‘full service’ vendors competing to capture value from existing and latent demand</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic Care Coordination (CCC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Largest cost and value drivers for payers and providers</td>
</tr>
<tr>
<td>• Will be led by providers</td>
</tr>
</tbody>
</table>

- ‘Full service’ vendors will shift to robust technology utilizing SaaS business models
- Superior technology platforms will go surpass facilitating remote connections and integrate into their technology stack
- Successful infrastructure/SaaS plays will be customized to both the buyer and the clinical use case
Potential Services and Solutions

EXISTING CAPABILITIES

- Secure Messaging
- Symptom Checker
- Nurse Advice
- Medically Trained Service Center

UPCOMING

- Triage & Redirection
- Health Records
- Telehealth
- Behavioral Health
- Scheduling and coordination
- Central Scheduling BPO
- Chronic Care Management
- Closure of Gaps in Care
- Change Management / Health Care Consulting

Connect to Patients
Thank You!