Telemedicine: A primer
Getting off the ground with your telehealth program

What is telemedicine?

- Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status.
Early attempts at telemedicine – Mass. General and Logan Airport link 1967

Types of telehealth delivery

- Asynchronous (store and forward – diabetic retinopathy/dermatology issues)
- Synchronous (real-time encounter)
- mHealth
- Direct-to-consumer
- Remote patient monitoring
The market for telehealth

Telehealth is a form of telemedicine in which patients receive remote monitoring after treatment or for long-term chronic disease management. Here are the number of patients for chronic conditions that form the current and projected market for telehealth. *(Figures in thousands)*

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive heart failure</td>
<td>208.6</td>
<td>344.1</td>
<td>578.1</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>55.3</td>
<td>84.3</td>
<td>129.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>78.7</td>
<td>136.9</td>
<td>236.0</td>
</tr>
<tr>
<td>Hypertension</td>
<td>55.3</td>
<td>94.8</td>
<td>188.8</td>
</tr>
<tr>
<td>Mental health</td>
<td>12.8</td>
<td>17.6</td>
<td>17.7</td>
</tr>
<tr>
<td>Others</td>
<td>14.9</td>
<td>24.6</td>
<td>29.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>425.6</td>
<td>702.3</td>
<td>1,179.8</td>
</tr>
</tbody>
</table>

Source: IHS

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**Figure 1. Likelihood of using telemedicine**

- **49%** 53% 40% You are recovering from surgery. For example after having a heart attack, you could connect to discuss post-surgical care.
- **48%** 51% 45% You are monitoring a chronic condition, such as diabetes, and you need to talk about your blood sugar results and medication dosage.
- **36%** 38% 36% You are traveling and you develop a sore throat and fever.
- **32%** 33% 31% You have a minor injury, such as a rash on your leg.

Source: Deloitte Center for Health Solutions 2016 Survey of US Health Care Consumers.
Advantages

- Patient:
  - Convenience
  - Greater Access
  - Lower Costs
  - Reduced Travel Times
  - Care in home environment
Technology required

- For clinical consultation
  - Medical cart
  - Trained telepresenter
- For education/therapy
  - Video connection
  - Specialized software
- Robust circuit - 10Mbps
  - QoS optimized
Remote Consultation

- Initiating clinic called “originating site”
  - Where telepresenter and patient are
- Receiving clinic called “distant site”
  - Where provider(s) is(are)

Example of encounter

Video of a sample encounter (too large to include)
For non-clinical encounters

Other potential use scenarios

- Post-Op follow-up
- ADHD medication management
- ED-to-ED consultation
- Remote patient monitoring
- Discharge from in-patient setting
- International consultation
- EMS connectivity
Direct to consumer

- Most visible type of telemedicine (public perception)
- App or web based encounter
- Initiated by patient
- Routed by vendor
- Providers can be vendor employees, health system employees or a mix
- Fees are paid to vendor
- Vendor pays system a variable fee based on which provider was used
- Most are white label vendors (MDLive/AmWell/AviziaOne)
First steps

- Look for opportunities that require minimum capital investment
  - $25K cart vs. $1000 HD Camera/mic
  - Provider to provider consultation/assessment
  - ADHD medication management
  - Diabetes Education
  - Speech Therapy
  - Behavioral Health

Reimbursement as a hurdle

- Virginia passed a parity law in 2010
- Private Payors must reimburse at same rate as VA DMAS
- Specific list of acceptable encounter
- Two store-and-forward (asynchronous) events reimbursable
  - Diabetic retinopathy
  - Dermatologic assessment
- Behavioral Health
- Speech Therapy
List of covered encounters - VA DMAS

- Colonoscopy
- Fetal non-stress test
- Radiology and radiology procedures
- Obstetric ultrasound
- Fetal EKG
- Individual, Group, and Family Psychotherapy
- Remote imaging for diabetic retinopathy
- Speech Therapy

List of covered encounters (con’t) - VA DMAS

- Diagnosis, analysis cochlear implant function
- Cardiography interpretation and report
- Echocardiography
- Evaluation and management - office visits
- Initial and subsequent hospital care
- Crisis intervention
- Substance abuse crisis intervention
- VA DMAS will pay a telemedicine facility fee (Q3014)
Who can provide telehealth services?

- Physician.
- Nurse practitioner.
- Physician assistant.
- Nurse-midwife.
- Clinical nurse specialist.
- Clinical psychologist.*
- Clinical social worker.*
- Registered dietitian or nutrition professional.

*Clinical psychologists and clinical social workers cannot bill for psychotherapy services that include medical evaluation and management services under Medicare. Also cannot bill 90792, 90833, 90836, and 90838.

Considerations

- Licensure
  - Must hold a valid license in state where PATIENT is located when consult begins
  - Some states can fast-track licensure for telemedicine only appointments
- Malpractice
- HIPAA
- Link speed
- Telemedicine specific consent form
Questions?

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