How to Address Internal Barriers to Telehealth Adoption and Grow Successfully

Frank McMullin – Philips Telehealth
Mary Hagen – Henry Ford e-Home Care

Provider operating model is undergoing a massive transition

<table>
<thead>
<tr>
<th>FFS Fee for Service</th>
<th>PMPY Per Member Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay for Volume</td>
<td>Pay for Value</td>
</tr>
<tr>
<td>More, More, More</td>
<td>Do more with less, less, less</td>
</tr>
</tbody>
</table>
Payment landscape continues to shift

**Commercial Payer: Flat fee for a full year of treatment**

**Target: 50% of Medicare payments quality-based by 2018**

- Full capitation
- Credit for efficiencies already achieved

The efficient are getting stronger. The less efficient will be greatly challenged.

---

Telehealth improves outcomes, costs, utilization

**In the Hospital**

- **Critical Care**
  - 26% reduction in ICU mortality
  - 20% reduction in ICU length-of-stay

- **Med/Surg**
  - 16% reduction in Med/Surg cost per case
  - 36% reduction in Med/Surg falls

**In the Home**

- Reduced hospital visits 38%
- Reduced ED visits 67%
- Reduced healthcare costs $26,663 per patient/year
- Reduced hospitalizations 10.2 days per patient/year
- Reduced mortality 45%
Telehealth is shown to improve outcomes, costs

**Compared to usual care, telemonitoring:**
- Reduces hospital admissions and readmissions,
- Reduces length of hospital stay,
- Reduces emergency department visits,
- Reduces mortality,
- Lowers cost, and
- Prevents and/or limits illness severity and episodes, resulting in improved health outcomes.

### Home Telehealth patient satisfaction\(^2\)

**Mean scores of patient perception**

<table>
<thead>
<tr>
<th>Perceived Benefit</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>This health monitoring technology improves my health care</td>
<td>3.23</td>
</tr>
<tr>
<td>This technology improves my life</td>
<td>3.11</td>
</tr>
<tr>
<td>I am more involved in my health care as a result of this technology</td>
<td>3.16</td>
</tr>
<tr>
<td>This technology will help me live in my home longer</td>
<td>3.18</td>
</tr>
<tr>
<td>Using this technology has been a positive experience for me</td>
<td>3.20</td>
</tr>
<tr>
<td>This technology is easy to use</td>
<td>3.27</td>
</tr>
<tr>
<td>I am confident that this technology will help me if my health starts to decline</td>
<td>3.23</td>
</tr>
<tr>
<td>I feel better able to manage my health care with use of this technology than I did before</td>
<td>3.18</td>
</tr>
<tr>
<td>I have gone to my doctor at least once because of what I found out with the technology</td>
<td>2.81</td>
</tr>
<tr>
<td>I would like to use this technology for as long as I can</td>
<td>3.23</td>
</tr>
</tbody>
</table>

\(^2\) Ryan Spaulding, PhD, Medicaid HCBS/FE Home Telehealth Pilot, Center for Telemedicine & Telehealth University of Kansas Medical Center November 10, 2010.
Telehealth’s impact on the Triple Aim

Enterprise Telehealth to deliver pay-for-value across health system

Manage patients through transitions in care
**Henry Ford Health System Overview**

- 23,000 total HFHS employees
- 3.39 million outpatient visits and more than 73,000 surgical procedures performed (2014)
- More than 95,000 patients admitted to HFHS hospitals. (2014)
- Revenue: $4.7 billion; net income $27.8 million; uncompensated care, $317 million. (2014)
- Payor distribution: Medicare and Medicare HMO, 45%; Blue Cross, 23%; Medicaid and Medicaid HMO, 17%; Other, 15%. (2014)
- 7,851 births at HFHS hospitals. (2014)
- 275,000 home health care visits annually. (2014)
- Level 1 Trauma Center

**Henry Ford At Home**

- Hospital Group
- HAP
- Medical
- HFPN
- Extended Care
- Private Duty
- Self-health
- Home Infusion
- Health Products
- e-Home Care
- Hospice
- Home Health Care
**TH Program Initiation and Pilot Phase (2006)**

- Pilot/Quality project initiated in 2006. Determined to be beneficial and maintained as a limited solution for HHC patients with Medicare primary payor.
- Program utilized basic technology without blue tooth connection for 12 or fewer patients until late 2011.
- Limited marketing and exposure due to limited numbers of patients and no available resources dedicated to program.
- No data available after the pilot phase.
- Limited leadership support.

---

**TH Program Growth in Home Health Care, including solution selection (2011)**

- Recognized need for expansion of Telehealth
  - To maintain/increase market share
  - To decrease preventable readmissions which would result in fewer penalties for the health system.
- Created and filled position for Telehealth Coordinator.
- Solution selection:
  - Bluetooth technology a must to increase reliability of measurement reporting
  - Efficient platform able to streamline workflow
  - Robust reporting
- Increased marketing within the health system.
- Increased budget to fund program.
Importance of Marketing

External Marketing

- Utilization of HHC liaisons at skilled nursing facilities
- Presentations to SNF collaborative meetings
- Presentations to physician groups

Internal Marketing

- Presentations throughout the health system to all disciplines, practices, specialty departments, Case Managers
- Engagement with Physician groups to educate re: benefits of TH
- Log sweeps to identify patients with CHF
- Attendance at all nursing team meetings

Telehealth program growth into new settings where new $ incentives exist

**Henry Ford Home Healthcare**
Value-based purchasing
(+/- 8% Medicare revenue)

**Henry Ford SNFs**
All-cause, all-condition readmission penalties
(+3% / -2% Medicare revenue)

**Clinics within the Larger Henry Ford Health System**
Readmission penalties
(3% of Medicare revenue)
Value-based purchasing
(2% of Medicare revenue)

New payment models are requiring clinical, business models to be re-conceived
Programs supported by telehealth at HFHHC

- 30-day home health / transitional care
- Skilled Nursing Facilities
- Depression-light therapy
- Renal Transplant
- Oncology
- Advanced Care Center

30-day home health / transitional care program

Goals of Telehealth Use
- Decrease readmissions
- Increase patient satisfaction
- Engagement of HHC Case Managers to reduce readmissions

Use Model of Telehealth
- High involvement of telehealth team to effectively manage patients in the home

Resulting Intervention based on Telehealth Triage
- Implementation of protocols: CHF protocol, COPD protocol
- Additional opportunities for coaching patients

Outcomes
- 13% 30 day readmissions for all cause
- 3% 30 day readmission for telehealth diagnosis

Barriers
Skilled Nursing Facilities

- Pre-implementation education provided
- Patients installed within 24 hours of transition to facility (7 days/wk)
- Daily monitoring (7 days/wk)
- Ongoing support and troubleshooting
- Daily reports provided by noon
- Continuity of care upon transition to home
- Appropriate patients include:
  - High risk for readmission
  - Any chronic diagnosis
- Daily monitoring with early intervention. Detection of subtle changes

Outcomes to date
- 269 patients monitored
  - 8% - 30 day readmission rate for all cause
  - 2% - 30 day readmission rate for telehealth diagnosis

Barriers

Depression, Light Therapy

Prevalence of Depression
- 2X as common in home health care pts. compared to primary care
- Mostly unidentified, untreated
- Hard to identify traditionally

Goals of Telehealth Use
- Identify, treat depression patients
- Provide education to patients, caregivers
- Reduce readmissions and increase QOL
Use Model of Telehealth
- Telehealth patients received PHQ9 survey day after enrollment
- No HCP present at the time of the survey
- Results transferred to the telehealth team

Resulting Intervention based on Telehealth Triage
- Physician consulted to alter plan of care.
  Treatment options:
  - Behavioral health appointment
  - Medication
  - HHC MSW for evaluation
  - Light therapy pilot participation

Depression Screening Intervention Results
- 700 patients screened
- 238 available PHQ2 scores from OASIS
  - 170 were 0
  - Of those 170, average PHQ9 score of 10.67
- 295 patients re surveyed on day 30
  - 96 improved >=1, <=4
  - 32 improved >=5, <=10
  - 16 improved 11+
  - 2 worsened by 11+
  - 26 worsened by >=5, <=10
  - 61 worsened by >=1, <=4
Light Intervention

- Pts positive for depression (PHQ9 >5, <20) offered a phototherapy and MSW consult
- After install, patient instructed to use light for 30 minutes/day on side of their face
- Use for 30 days, when PHQ9 survey is re-administered

Light Therapy Intervention

- 20 patients enrolled
- 11 completed 30-day program, completed PHQ9 at end
- 100% of participants improved PHQ9. Average improvement of 7 points

Barriers

Renal Transplant

Goals of Telehealth Use

- Lead renal MD approached HHC to assist with reducing readmissions in the kidney transplant patients
- The transplant institute is responsible for outcomes (cost) for 90 days kidney post-transplant

Use Model of Telehealth

- All kidney transplant patients receive 60 days of HHC with Telehealth service

Resulting Intervention based on Telehealth Triage

- Early detection of s/s of rejection, infection, hyperglycemia

Outcomes

- Limited data to share as program is still in pilot phase

Barriers
**Oncology**

**Goals / Origin of Telehealth Use**
- Decrease calls to Oncology clinic
- Decrease ED utilization/readmissions

**Use Model of Telehealth**
- Patients receiving chemotherapy and having symptoms that are difficult to control
  - Nausea, vomiting, diarrhea, loss of appetite, medication management concerns and/or pain control concerns
  - Survey developed by oncologist, patient feedback, and Telehealth team to specifically ask about GI-related symptoms and pain control

**Resulting Intervention based on Telehealth Triage**
- Early detection of dehydration/rehydration infusion by HHC nurse

**Outcomes**
- Decreased calls to physician office
- Early intervention with urgent situations handled by HHC nurse
- Increased patient satisfaction and physician satisfaction

**Barriers**

---

**Advanced Care Center**

**Goals of Telehealth Use**
- Avoid readmissions/Manage exacerbations in clinic setting

**Use Model of Telehealth**
- Referral from ACC to telehealth and HHC
- Referral from ACC for telehealth only
- Close collaboration between programs and caregiver/patient
- Availability of physicians/staff is key

**Barriers**
Other Technology-based related services

- PERS: 1200 subscribers
  - 60 days at no cost to all HHC patients
- PMD: 79 subscribers
  - 30 days trial period for all HHC patients who meet criteria

Resource allocation / staffing across programs

- Administration: 1 FTE
- Nursing: 6.5 FTE’s
- Clerical: 3 FTE’s
- Lifeline/PMD Coordinators: 2 FTE’s
- Delivery Service Technicians: 4 FTE’s
How to Address Internal Barriers to Telehealth Adoption and Grow Successfully

Frank McMullin – Philips Telehealth
frank.mcmullin@philips.com

Mary Hagen – Henry Ford Home Care
mhagen1@hfhs.org