Home Telehealth: Enhancing Care, Saving Costs

How remote-monitoring technology is changing the landscape of home care delivery by reducing hospitalizations and health care expenses

Home telehealth involves the use of technologies in the home that allow patients to receive education and daily monitoring of vital signs and/or video visits from a registered nurse or therapist. Thus, it could be said, that home telehealth extends the eyes, ears and touch of home care, bringing specialized medical monitoring to people who need it, as a supplement to in-person home visits. These technologies save countless health care dollars by helping to reduce hospitalizations and the use of emergent care services.

Recognizing the value of this care tool, HCA has advocated for state and federal policies supporting the use of home telehealth technologies. Our recommendations aim to incentivize innovative, provider-driven home telehealth models and promote systems for reimbursing provider agencies that utilize these models of care delivery. Traditionally, home care agencies have, by and large, made their own investments in home telehealth. Therefore, HCA believes that a broader policy of reimbursement support would lead to more widespread adoption of technologies proven to enhance care and save health care dollars.

Studies document value of home telehealth

While research has clearly documented the cost savings of traditional home care services, studies also show that even greater cost savings – and improved health management – can be achieved when the care coordination function of home care is integrated with a home telehealth program. These studies show that home telehealth models as a whole:

1. Enable cost-effective daily monitoring of vital signs and health symptoms to enable early detection of potential exacerbations, and an opportunity for early intervention that averts or reduces emergency room visits and hospital stays;

2. Educate patients and support their self-management to enable individuals with chronic conditions to remain healthier and take control over their health; and

3. Support “management by exception,” meaning that care managers are able to concentrate services on individuals shown to need the most help on any given day, thus increasing the number of patients that can be managed per nurse (Center for Technology and Aging, 2012).

In terms of cost savings, a 2010 study by economist Robert Litan, for instance, reported that more widespread use of remote technology over the next 25 years, including home telehealth, could save as much as $197 billion by helping to manage care coordination for patients with chronic diseases such as congestive heart failure and diabetes.
The benefits of home telehealth have long been understood. More than a decade ago, the U.S. Department of Veterans Affairs began pilot tests of a care coordination and management program based on telehealth technology for high risk, high cost veterans with complex chronic conditions, including mental health. The program achieved substantial initial results— including a 63% reduction in hospital admissions, an 88% reduction in nursing home bed days of care, and a reduction of 20% in hospital additions with a population of over 17,000 veterans.

Such results were validated by a report released this fall (Center for Technology and Aging, 2012) documenting the success of the CMS-sponsored Health Buddy Program (implemented within the CMS Care Management for High Cost Beneficiaries, or CMHCB, demonstration program). The Health Buddy Program found a link between changes in health care spending and the use of patient-centered care management supported by remote patient monitoring. Spending was reduced approximately 7.7% to 13.3% (or $312 to $542) per patient per quarter over the two-year period studied.

These are just a few of the many studies that validate the cost-effectiveness of home telehealth technologies, including recent studies conducted in New York State which show that many agencies are leading the way in adopting programs that are successfully, reducing unnecessary utilization of health services, and improving the lives of chronically ill patients.

**Telehealth Innovations in New York State**

HCA recently worked with Simione Healthcare Consultants to conduct a study of innovative cost saving programs currently being utilized by New York home care providers, including the home telehealth programs employed by: Oneonta-based At Home Care, Inc., Patchogue-based Brookhaven Memorial Hospital Home Health Agency, New York City-based Metropolitan Jewish Health System Home Care and Albany-based St. Peter’s Home Care.

All of the agencies developed and used specific assessment tools, care paths, or protocols for their programs, and included patient education as a key component. The agencies also used a multi-discipline approach in developing the program and providing patient care.

The study identified telehealth care management as a critical component of successful transitions programs. It found that use of home telehealth in managing the care for high-risk patients at these four agencies alone led to cost reductions totaling over $1 million in averted hospitalizations, as shown in the chart below.

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Annual Enrollment</th>
<th>Readmission Rate of Patients</th>
<th>Percent Decrease in Readmission</th>
<th>Total Annual Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Home Care Inc.</td>
<td>900</td>
<td>16%</td>
<td>7%</td>
<td>$ 466,200</td>
</tr>
<tr>
<td>Brookhaven Memorial Hospital Home Health Agency • COPD Cases</td>
<td>181</td>
<td>7%</td>
<td>19%</td>
<td>$ 254,486</td>
</tr>
<tr>
<td>• Pneumonia Cases</td>
<td>92</td>
<td>0%</td>
<td>26%</td>
<td>$ 177,008</td>
</tr>
<tr>
<td>Metropolitan Jewish Health System Home Care</td>
<td>300</td>
<td>21.7%</td>
<td>4%</td>
<td>$ 88,800</td>
</tr>
<tr>
<td>St. Peter’s Home Care</td>
<td>213</td>
<td>10%</td>
<td>6.5%</td>
<td>$ 102,453</td>
</tr>
<tr>
<td><strong>Total Annual Savings of All Projects</strong></td>
<td><strong>1686 Patients/Four Agencies</strong></td>
<td></td>
<td></td>
<td><strong>$1,088,947</strong></td>
</tr>
</tbody>
</table>

**NOTE:** Data is self-reported and variables are not controlled between agencies. Savings were calculated based on MedPAC’s estimate of the average national cost of $7,400 per Medicare readmission. Actual savings in New York State would be greater given higher hospital costs per patient on average in NYS.
Eddy VNA study

In 2010, the Troy-based Eddy Visiting Nurse Association completed a one-year pilot study that identified several important benefits of its home telehealth care model, including a dramatic drop in the rate of hospitalizations, ER visits and total medical costs (Mazzacco, “Study Confirms Benefit of Home Telehealth”).

The program identified 53 patients with two or more hospitalizations or ER visits in the 12 months prior to the study, many of them suffering from multiple chronic conditions. Eddy VNA nurses installed telehealth units in the consenting individuals’ homes and monitored the patient’s vital signs and other health indicators for seven days a week over the next 12 months. Among other key findings, the study reported the following results:

- 55% drop in the number of hospitalizations for these patients, from 178 to 80.
- 29% reduction in emergency visits, from 137 to 97.
- 42% drop in medical costs, from nearly $3 million to $1.7 million.

This data made available through these studies demonstrates the clear value of home telehealth technologies in enhancing care delivery to chronically ill New Yorkers and in saving health care dollars through the innovative use of home telehealth models adopted by providers.

Recommendation

HCA has a solid track record of support for legislative and policy efforts to promote the adoption of telehealth, including the spearheading of successfully enacted legislation in the State of New York for the State Medicaid program to provide reimbursement for telehealth. New York is one of only a few states that has a Medicaid reimbursement structure and a program to guide and enable the use of telehealth. On the federal level, HCA supports efforts to promote Medicare support for the use of telehealth for the Medicare home care population and supports legislation introduced by Senators John Thune (R-SD) and Amy Klobuchar (D-MN) that would mandate that the Secretary of Health and Human Services (HHS) establish pilot projects under the Medicare program to provide monetary incentives for home health agencies to utilize monitoring and communications technologies. This legislation, the “Fostering Independence Through Technology (FITT) Act,” has also been introduced in the House of Representatives by Representative Tim Walz (D-MN).

Sources


Center for Technology and Aging. “Strategies for Incorporating Telehealth-based Care Coordination and Management Solutions into Programs to Integrate Care for Dual Eligibles” (2012). Issue Brief


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