Telehealth in Connecticut

Perspectives from Home Health Care Providers

Connecticut
State Office
of Rural Health

Health care branching
out to rural communities

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SUMMARY. Telehealth refers to the remote provision of healthcare services and health education, mediated by technology. A 2013 report from the Connecticut Office of Rural Health summarized the current telehealth landscape in Connecticut. The report confirmed that Connecticut lags significantly behind other states in facilitating the widespread adoption of telehealth services despite significant research that demonstrates the positive impact on access to quality services, health outcomes, and cost savings. This follow-up paper shares the perspectives about telehealth services held by licensed home healthcare providers as well as other home healthcare industry leaders. The paper offers a set of recommendations to promote telehealth services in Connecticut.

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About the Connecticut Office of Rural Health. Offices of Rural Health exist in all 50 states across the United States. The Connecticut Office of Rural Health (CT-ORH) promotes the health of persons living in rural Connecticut. The CT-ORH serves as a clearinghouse to assist in the coordination of resources and activities that promote rural health on a regional or statewide basis, and provides technical assistance to rural health providers and organizations. These strategies enhance recruitment and retention efforts for rural healthcare providers and promote state, local, regional, and federal partnerships intended to increase access to quality healthcare for residents of rural Connecticut. The CT-ORH is located on the campus of Northwestern Connecticut Community College in Winsted, Connecticut. Visit http://www.ruralhealthct.org for additional information.

[1]The Connecticut Office of Rural Health extends appreciation to the CT-ORH Advisory Board and diverse group of health leaders for their continued pursuit of and support for the advancement of telehealth solutions. Funding for this initiative to support the involvement of Cross Sector Consulting, LLP and to complete the project comes from the CT State Office of Rural Health grant program through the Department of Health and Human Services through the Health Resources & Services Administration's Federal Office of Rural Health Policy grant program, CFDA#93.913.

BACKGROUND

Purpose

Telehealth refers to the remote provision of healthcare services and health education, mediated by technology. The Connecticut Office of Rural Health (CT-ORH) and its Advisory Board published a 2013 report titled, "*Telehealth in Connecticut*". The report assessed baseline conditions for telehealth in Connecticut and introduced four recommendations to advance telehealth services in Connecticut. This report extends the dialogue about telehealth in Connecticut by adding the perspectives of licensed home health care providers and leaders affiliated with the home health care industry.

Telehealth Proven to Achieve the Triple Aim

Research confirms that telehealth produces benefits such as reductions in hospitalizations, readmissions, lengths of stay and costs.[2] A National State of the Home Care Industry report documents that home healthcare providers using telehealth services experienced increases in referrals, decreases in visits per episode, and lower agency costs.[3] Research studies on specific patient populations provide strong evidence to support the inclusion of telehealth strategies in healthcare delivery.

One study illustrates this point with patients who received skilled nursing care at home for issues related to congestive heart failure and chronic obstructive pulmonary disease.[4] Patients in this study were randomly assigned into one of three groups: a *control group* with traditional skilled nursing care at home; a *video intervention group* with traditional nursing care at home and virtual visits using videoconferencing technology; or a *monitoring intervention group* with traditional skilled nursing care at home, virtual visits using videoconferencing technology, and physiologic monitoring for their underlying chronic disease.

The findings revealed one significant difference between the groups in terms of mortality and morbidity. The video intervention group and the monitoring intervention group patients showed *increased scores* for activities of daily living at the time of discharge from the research study. Furthermore, the average costs per visit for the control group ($48.27) far exceeded the average cost of the video intervention group ($22.11) and the monitoring intervention group ($38.62).

Equally important, the use of telehealth services, particularly physiologic monitoring, allows home healthcare providers to apply the "management by exception" approach. This approach concentrates skilled nursing staff services on individuals who need the most support on any given

[2] Chen, H. et al. (2011). Telehealth and Hospitalizations for Medicare Home Healthcare Patients. American Journal of Managed Care. Vol. 17 (6). Also available at www.ajmc.com/publications/issue/2011/2011-6-vol17-n6/AJMC_11jun_ChenKalish_e224to30
[3] Fazzi Associates – Business Intelligence Division. (2013-2014). National State of the Home Care Industry Report for Home Health and Hospice.
[4] Finkelstein, S.M., Speedie, S.M. & Potthoff, S. (2006). Home telehealth improves clinical outcomes at lower cost for home healthcare. Telemed J E Health. Apr; 12(2):128-36.

day. Optimizing the time of skilled nursing staff can result in a higher number of patients managed by one nurse without compromising quality of care or diminishing patient satisfaction.[5]

Telemedicine Standards & Guidelines Exist

The American Telemedicine Association (ATA) offers practice guidelines and technical standards for the field of telemedicine and telehealth. The ATA uses these standards to "form the basis for uniform, quality patient care and safety, grounded in empirical research and clinical experience." The standards apply to individual practitioners, group practices, health care systems, and other providers of health-related services for the purposes of health care delivery and cover topics such as:

- Clinical Guidelines for Telepathology (published August, 2014)
- Guidelines for TeleICU Operations (May, 2014)
- Core Operational Guidelines for Telehealth Services Involving Provider-Patient Interactions (May, 2014)
- A Lexicon of Assessment and Outcome Measures for Telemental Health (November, 2013)
- Practice Guidelines for Video-Based Online Mental Health Services (May, 2013)

The American Telemedicine Association offers no-cost access to these and other Standards and Guidelines.[6]

Connecticut Operates in Suboptimal Telehealth Landscape

An excerpt from the Connecticut Office of Rural Health's 2013 report on the baseline conditions of telehealth summarizes the situation facing home healthcare providers in Connecticut.

> Telehealth policy discussions by leaders in Connecticut remain fragmented and occur primarily, if at all, in the context of implementing other major reform initiatives with supplemental funding streams. Rapid changes to the healthcare landscape due to the Affordable Care Act and the combination of budget issues facing the State resulted in little to no advancement for telehealth in Connecticut…Reports by the American Telemedicine Association compare states in their implementation of state Medicaid best practice across areas such as school-based telehealth, remote patient monitoring and home video visits,

[5] See "Strategies for Incorporating Telehealth-based Care Coordination and Management Solutions into Programs to Integrate Care for Dual Eligibles" (2012), Center for Technology and Aging available at: http://www.techandaging.org/Dual_Eligibles_Issue_Brief.pdf
[6] Visit: http://www.americantelemed.org/resources/standards/ata-standards-guidelines#.U_30_2cg-Uk

> store-and-forward telemedicine, and telemental and behavioral health.[7] *Connecticut compares unfavorably to other states in telehealth policies*. (Pages 5-6)

Home Healthcare providers and industry experts all confirm that the policy and reimbursement environment in Connecticut limits adaption and scale up of telehealth services.

PERSPECTIVES

Method

The CT-ORH staff identified 23 licensed home health care providers serving patients in Connecticut's rural towns.[8] Project staff asked executive leaders or health care administrators from these organizations to complete an online survey or a short telephone interview. The telephone interview followed the same format as the online survey.[9] Nine (40%) of invited respondents completed the online interview or survey.

Responses were compiled and analyzed with the understanding that the small sample size offers only "impressions" of home healthcare providers in the context of the baseline conditions for telehealth in Connecticut. CT-ORH staff assisted, with input from the home healthcare providers and industry experts, developed a set of recommended action steps to facilitate adoption of telehealth services offered by home healthcare agencies in Connecticut, particularly those serving rural residents.

Belief in Telehealth Model. The majority (90%) of respondents agreed that telehealth services lower healthcare costs; several qualified their answers by clarifying only when sufficient reimbursement exists for the delivery of telehealth services and the purchase of equipment. All of the home healthcare providers offered anecdotal information about patients who benefited from telehealth monitoring, including avoidance of hospital re-admission as a result of detecting changes in physiological measures.

Complexity of Care. Home healthcare providers and industry leaders, irrespective of their patient-payer mix, reported extreme "market pressure" to survive. Factors identified included:

- Changes in CMS hospital discharge and re-admission reimbursement policies

[7] The American Telemedicine Association issued a series of State Medicaid Best Practice publications that included: Remote Patient Monitoring and Home Video Visits (July 2013); School-Based Telehealth (July 2013); Store-and-Forward Telemedicine (July 2013); and Telemental and Behavioral Health (August 2013).

[8] Connecticut Department of Public Health maintains a list of 106 licensed home health care providers (www.elicense.ct.gov).

[9] A survey instrument, developed using questions from other telehealth studies, focused inquiry about: a) the respondent's healthcare experience and organizational capacity; b) the patient population; c) telehealth services available; d) future plans and supports; and e) additional comments.

- Reductions in hospital stays and increased outpatient procedures - resulting in more fragile patients recovering at home
- Higher complexity of care (e.g., complex medication regimens)
- Insufficient reimbursement (e.g., no increases in Medicaid reimbursement rates in general; limitations in reimbursement for telehealth services)
- Changes in the healthcare industry (e.g., alignment with Accountable Care Organizations; implementation of electronic health records)

Providers recognized these conditions represent the new normal, and without policy change the burden to invest in telehealth services fell squarely on their organization's shoulders.

Telehealth Services. All providers reported offering telehealth services in the broadest sense (e.g., telephone consultations). The most frequently cited type of telehealth services:

- Applied telemonitoring of physiological measures and/or involved the use of (smart) phone applications
- Involved patients on Medicare which offers telehealth reimbursement options
- Targeted patients with chronic diseases such as congestive heart failure, chronic obstructive pulmonary disease, and/or conditions involving diabetes
- Involved initiatives formal or informal wherein hospitals or accountable care organizations were implementing initiatives to reduce hospital re-admission rates for specific disease conditions

Telehealth Capacity. The organization's capacity to offer telehealth services varied significantly by home healthcare provider and correlated directly to the organization's success in securing grant funding. For example:

- One provider stated, "Although our agency had telehealth services several years ago, we opted to temporarily postpone services because our equipment became outdated and the expense to purchase new equipment was outside of our budget capability."
- Another provider stated, "We have an inventory of 25 telemonitoring units that are fully deployed in the field. Ten of these units should be replaced soon. All of the units were purchased with money from grants. No doubt exists that our patients and our organization would benefit from a broader application of home telemonitoring."

Home healthcare providers who use telemonitoring for Medicare patients typically work within a 45-day window after hospital discharge. A single telemonitoring unit could benefit approximately six patients annually. The exact number of telemonitoring units deployed by home healthcare providers in Connecticut remains unknown. However, the hospital re-admission rates in Connecticut for high priority (by CMS) disease categories hovers around 17% (about the national average). Home healthcare providers and industry leaders believe adoption of telehealth will significantly reduce the number of hospital re-admissions and the cost of healthcare.

Future Plans. All of the home healthcare providers reported that their agencies would benefit from expanding telehealth services. The most frequently cited telehealth resources and supports that would benefit the agencies included:

- Access to information about reimbursement and financing
- Opportunities to collaborate in resource development and/or to cost share with partners around training, service delivery, and/or equipment purchases

Home healthcare providers reported that they did not, at this time, believe a need existed for more information dissemination or for additional training of staff on telehealth service delivery protocols. Home health care providers and industry leaders believed that a concerted effort should target policy and reimbursement change to support the widespread adoption of telehealth services.

Potential Impact. Nationally, inpatient hospital services account for about 7% of healthcare utilization and constitute the largest share of healthcare spending. Average hospital cost per stay varied by payer (e.g., $11,600 for Medicare, $9,100 for private pay insurance, and $7,500 for Medicaid).[10] Medicare was responsible for nearly half of the aggregate costs of hospitalizations. Adults ages 45 to 64 and 65 to 84 accounted for nearly two-thirds of aggregate costs – including a higher average cost per stay ($12,100 and $12,300).

The purchase of a durable, multi-purpose telehealth monitoring device costs approximately $2,000 per unit plus monthly service plan fees. The device can serve approximately 6 clients per year (applying the current methodology used to manage Medicare patients post-discharge from the hospital). The reduction of one hospital re-admission at average hospital cost per stay would support the purchase and operation of at least five (5) telemonitoring units that could serve up to 30 patients per year – improving their health outcomes, quality of life and reducing costs and optimizing the skilled nursing workforce by allowing them to serve more patients.

Unfortunately, Connecticut remains behind the curve in terms of offering a supportive policy and reimbursement environment for scaling up telehealth services.

[10] Pfuntner, A., Wier, L., & Steiner, C. (2013). Costs for Hospital Stays in the United States, 2010. Statistical Brief #146. Healthcare Cost and Utilization Project. Agency for Healthcare Research and Quality.

IMPLICATIONS

The impressions provided by the respondents from a subset of licensed home health care agencies corroborate findings from existing studies. The main conclusions of a literature review[11] captures the essence of the perspectives from survey respondents. First, providers believe telehealth offers cost effective models for care delivery. However, these vary same providers cannot afford the initial capital and/or equipment investments. Unequivocal evidence of the relative efficacy or cost-effectiveness of telemedicine has not yet materialized despite many years of effort across perhaps 1,500 individual studies. Second, the underlying premise for expanding the availability of telemedicine remains that payer organizations operating in a competitive marketplace, or a client-oriented public sector culture will be responsive to the expressed needs of their customers and clients. If care providers pressure payer organizations to reimburse for telemedicine, and if health plan consumers pressure insurers to cover such services, payer organizations will seek to satisfy the demand. *Currently, this dynamic does not exist in Connecticut.*

Another report[12] reflects similar themes expressed by Connecticut's survey respondents:

- Number of players and rules adds complexity and confusion to the telehealth landscape
- New laws do not ensure effective practice
- Limited impetus exists to change status quo
- States can proactively tackle the challenges

Connecticut's survey respondents did identify a willingness to collaborate and the necessity for collaboration on telehealth projects. Respondents expressed interest in supporting pilot projects and/or helping the CT-ORH and other partners to change Connecticut's policy and reimbursement environment.

[11] Leach, W. (2009). If You Bill It, They Will Come: A Literature Review on Clinical Outcomes, Cost-Effectiveness, and Reimbursement for Telemedicine.
(http://www.caltrc.org/sites/main/files/file-attachments/literature-review.pdf)

[12] Hall, M & Hall, P. (2009). *Telemedicine Reimbursement: A National Scan of Current Policies and Emerging Initiatives*. http://www.caltrc.org/sites/main/files/file-attachments/ctec-national-scan.pdf

RECOMMENDATIONS

The perspectives of the home health providers and home health industry leaders resonates with the research and experiences of other states implementing telehealth services: access to higher quality care, better health outcomes, and opportunities for cost savings. Connecticut healthcare leaders and policymakers can take several tangible actions steps that will bring Connecticut in line with the majority of other states:

1. Amplify existing efforts to change telehealth-related policies and reimbursement practices in Connecticut and the New England region. Educate decision-makers on the costs and benefits of telehealth services.

2. Explore the interest level and feasibility of pooled-purchasing options by home healthcare providers for telemonitoring devices and service plans. This may include collecting additional data on current telehealth capacity and equipment.

3. Organize stakeholders in rural areas – hospitals, home healthcare agencies, foundations, and other payers, to implement pilot programs using telehealth strategies for high priority disease populations (e.g., CHF, COPD).

4. Identify federal and state measures and metrics for telehealth services. Advocate for collection upon hospital admission of home telehealth utilization and report these measures regularly as part of Connecticut's healthcare reform results-based-accountability strategies. Use the information to inform policy development; to conduct research on best practices, health outcomes, and cost-benefits; and to influence reimbursement and facilitate access to funding for building telehealth service delivery infrastructure.

5. Coordinate healthcare stakeholders for the express purpose of accessing federal funding opportunities that expand telehealth options for home healthcare providers (and hospitals) serving residents of rural Connecticut.

For more information about the Connecticut Office of Rural Health or the telehealth projects sponsored by the Connecticut Office of Rural Health, please contact:

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