September 19, 2013

David Seltz, Executive Director
Stuart Altman, PhD, Health Policy Commission
Thomas O'Brien, Chief, Health Care Division, Office of the Attorney General
Aron Boros, Executive Director, Center for Health Information and Analysis

Dear Sirs:

Porchlight VNA/Home Care appreciates this opportunity to present testimony to the Health Policy Commission, Office of the Attorney General, and Center for Health Information and Analysis on home health care's relation to, perspectives on, and health care cost trends in the Commonwealth. Porchlight VNA/Home Care has been serving Berkshire County and the hill towns of Hampden and Hampshire Counties for over 100 years. Many of the patients we see are in very remote areas. They are unable, without considerable effort, to get to primary medical care. Our focus has always been on population health in our community and individual patient care.

With this history and mission, we cannot help but be enthused that our system is moving toward models in which care providers feel a shared sense of accountability for both resource utilization and patient outcomes. We have long been frustrated that misaligned incentives and insurance rules have hamstrung us when it comes to being creative in crafting a patient-centered care plan, delivering evidence based in-home services such as care transitions and patient teaching and providing medication administration, falls prevention and disease management.

This testimony reflects our responses to the specific questions from our perspective as a relatively small, but progressive, freestanding not-for-profit VNA operating in Western Massachusetts. At times, this testimony also incorporates our perspective from within the broader home health care community.

1. Chapter 224 of the Acts of 2012 sets a health care cost growth benchmark for the Commonwealth based on the long-term growth in the state's economy. The benchmark for growth between CY2012-CY2013 and CY2013-CY2014 is 3.6%.

   a. *What are the actions your organization has undertaken to reduce the total cost of care for your patients?*

      Summary Statement: The goal of Porchlight as part of the Massachusetts health care continuum is to deliver the highest value care to the highest needs individuals. The savings we produce in terms of "total patient costs" are often achieved by substituting high quality home care for higher level care (nursing home) or as a sentinel service to prevent Emergency Department (ED) visits and rehospitalizations. Therefore, the challenge for Porchlight VNA/Home Care has not been as much about getting our individual per service costs down, as it is putting in place programs that maximize our value to other parts of the system and getting our services appropriately utilized.

      Response: To add value to the health care delivery system in home care often means "subtraction through addition." To reduce both our cost per episode of home care and to increase our capacity to support evidence-based patient self-management and readmission reduction, we have incorporated remote monitoring, or telehealth, into our care for cardiac,

respiratory and all high-risk patients. Our internal studies for this technology show savings and a lower than average rehospitalization for these patients. Our numbers are small. The Center for Connected Health, as well as others, has validated the savings per episode of home care in terms of readmission reduction. (See http://www.commonwealthfund.org/Publications/Case-Studies/2013/Jan/Telehealth-Partners.aspx and http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Telehealth/howcantelehealth.html and *Attachment A*).

Additionally, we have added a Nurse Practitioner (NP) to our care team. The NP is available to make home visits that in the past were often reasons that patients were ordered to the ED by a physician. For example, the NP can write a prescription to change a medication dose or administer IV Lasix as well as other numerous high-tech treatments for patients to keep them at home avoiding ED visits. Stabilizing patients in the home requires using an advanced practitioner in conjunction with other home care services such as Nursing, Physical Therapy, Occupational Therapy, Speech Therapy, Home Health Aide services. This is an annual investment by our agency that returns dividends to the system.

Finally, it should be noted that Porchlight is a provider of non-clinical community-based services. In addition to providing homemakers, personal care attendants and companions to the Massachusetts Executive Office of Elder Affairs for state-funded programs and waivers, we provide families in Western Massachusetts ***affordable, privately paid*** home care services. Many of these families might well be turning to nursing homes and eventually MassHealth were it not for what we are able to provide. ***If only 10% of the patients and families for whom we provide this valuable service were instead to turn to a nursing and "spend down" to MassHealth, the annualized costs to the state would be approximately $1.8 million.***

a. *What are the biggest opportunities to improve the quality and efficiency of care at your organization? What current factors limit your ability to address these opportunities?*

Summary Statement: In home care, almost all costs (67% at Porchlight VNA/Home Care) are in our staff, our salaries and our benefits. Because our major payer (Medicare) is potentially going to reduce payments by 14% (prior to sequestration) over the next few years, we are always looking at ways to make operations leaner. Using benchmarking metrics (see question 5 response) is key, as is a focus on productivity. The degree of regulations in our sector is, however, a highly limiting factor in streamlining costs.

Response: Our biggest issue in terms of improving efficiencies is to train staff to deliver the same quality experience with the same outcomes to patients in fewer visits. The telehealth system referenced above is critically important to this effort. Monitoring vital signs remotely gives our staff and the patient's physician objective and targeted vital signs data to support clinical decisions, schedule visits as needed, and most importantly, to identify *before a crisis* when a patient's condition appears to be worsening.

Limiting our ability is the fact that these telehealth systems that are so successful in improving both efficiencies and outcomes are not reimbursed by Medicare, Medicaid or private insurers. Massachusetts Medicaid and other insurers should take steps to incorporate telehealth home health as reimbursable services.

Also limiting the efficiency of our sector of the health care marketplace is unchecked growth in the numbers of home health providers. We have seen a greater than 30% growth in the number of federally-certified agencies in the past few years in Massachusetts, in a market with no uncovered areas. Many of these new entries have neither the volume nor the capital to invest in the staff training and capacity building needed to support the Massachusetts care transitions and patient-centered care agendas. Their outcomes (and readmissions rates) in their start-up years tend to be higher than more established agencies. They aggressively seek to provide care for patients whose profiles indicate a high Medicare profit margin, making agencies such as Porchlight VNA/Home Care, who takes all patients, more fiscally vulnerable.

b. *What systemic or policy changes would encourage or help organizations like yours to operate more efficiently without reducing quality?*

Porchlight VNA/Home Care believes that the state needs to do more to sustain and support efficient providers who are investing in innovation. On a state policy level, Massachusetts should follow the path of many other New England states and support, at least temporarily, the Certificate of Need or Moratorium on new agencies.

On the federal level, Porchlight VNA/Home Care and other Western Massachusetts home health providers would also like the state's support in getting our agencies access to "rural add-on" that Medicare provides for home health payment. . The federal Department of Health and Human Services (DHHS) has listed approximately 40 Western Massachusetts towns as "rural" for purposes of health care grant funding, The MA Special *Commission on Rural Access and Improving State Sponsored Services* designates 29 towns in Hampshire and Hampden counties as rural. Our Western Massachusetts hospital receives enhanced payments through wage index adjustments and critical access status. Yet, our Western Massachusetts towns are not considered rural for the purposes of home health payment, forcing us to lose access to a 3% federal add-on. We have sought the support of our Congressional delegation in changing this, but need Executive Branch Support.

Just as the HPC is looking to support our Accountable Care Organizations in waiving Medicare rules inhibiting creativity around needing a three day qualifying stay for nursing home covered care, so should the state look to eliminate home care regulations that drive costs and inhibit creative caregiving. We would suggest two areas where support for federal waivers would make us more efficient: 1) Waiving Medicare's homebound requirement for certain patients, as this rule too often creates for us a significant gap between need and coverage for some of the more complex patients, and 2) moderating the new Medicare Face-to-Face requirement coverage rule for accessing home care.

c. *What steps are you taking to ensure that any reduction in health care costs is passed along to consumers and businesses?*

This is less applicable to our business than to other sectors.

2. The 2013 Examination of Health Care Cost Trends and Cost Drivers by the Attorney General's Office found that growth in prices for medical care continues to drive overall increases in medical spending.

What are the actions your organization has undertaken to address the impact of prices on medical trends and what have been the results of this action?

Summary Statement: Porchlight VNA/Home Care agrees with the Attorney General, who has raised flags in her two reports on ***Health Care Cost Trends and Drivers,*** as to how the size and increasing market share of certain systems may be adding to, rather than reducing costs. Our experience in Western Massachusetts confirms that the increasing concentration in our market around a single system is, as the AG pointed out, "limiting options for vulnerable populations" for accessing certain services. The accompanying decrease in referrals to freestanding home care agencies is making it less and less possible for an agency, such as Porchlight VNA/Home Care, to fairly compete according to typical market forces, by offering either lower costs or higher quality. As this concentration continues, there seems to be less and less market pressure to achieve efficiencies and pass those on to consumers via lower rates.

Response: Attorney General Coakley's report includes the recommendation that because of "consolidation and expanding provider responsibility under alternative payment arrangements, regulators will need to ensure that providers do not engage in discriminatory, unfair, or predatory conduct that might improperly limit care options for vulnerable populations or place undue risk on providers themselves."

With the utmost respect for the parties concerned, we strongly support this sentiment and would urge that parameters be established for mergers and integrated care arrangements to monitor coercive behavior in use/nonuse of community agencies that meet quality standards, with particular focus on pressures on case managers, physicians and systems of care to restrict their referring practices.

3. C224 seeks to promote the integration of behavioral health and physical health. What are the actions that your organization has undertaken to promote this integration?

   a. *What potential opportunities have you identified for such integration?*
   b. *What challenges have you identified in implementing such integration?*

   Summary Statement: Given the population that we serve – often isolated, homebound and without local family support - there are tremendous opportunities for home health agencies to be at the forefront of the advancement of integrated behavioral and physical health care.

   Response: The challenges we face are primarily rooted in historical reimbursement structures that have essentially been ill-designed to support a behavioral health program at a VNA such as ours. MassHealth had, in the distant past, recognized with a higher rate per visit, both the cost and value of bringing psychiatric nurses into a home care team. MassHealth also had a rural add-on for nurses needing to travel long distances to see clients. Today's MassHealth per visit rate is the same for any nursing visit regardless of care or location. This rate has not been updated in more than five years and currently, barely covers our direct costs for a traditional nursing visit. Attracting nurses with psychiatric training at these rates is impossible.

   Most of the work we do with clients of private insurers who have unmet behavioral health needs is coordinated through a PPO. Porchlight and many other freestanding not-for-profit VNAs utilize the services of the Visiting Nurse Association of New England (VNANE) for negotiating private insurance contracts. They, too, have found insurers reluctant to engage in discussion that would enhance our ability to provide integrated care for this population, such as a blended per visit rate for medical and behavioral health care. These entities usually rely solely on outpatient psychiatric providers, such as the Brien Center in our area for these services. While we work closely to refer patients to the Brien Center, we see many patients for whom such a visit is not possible and remain frustrated by limited coverage and reimbursement policies.

   c. *What systemic or policy changes would further promote such integration?*

   One systemic change that we strongly support is specifying – in the state's qualifying credentials for an ACO, a Primary Care Medical Home (PCMH), or a One Care (duals) provider – that home-based behavioral health for isolated patients is an essential core competency. The state should also include in the infrastructure design some explicit direction on the use of home-based services that supports inclusion of *existing quality providers* and avoids development by ACOs of duplicative community care services. Our state needs to be much more explicit about using existing resources in new ways rather than "recreating" the wheel to meet identified needs.

4. C224 seeks to promote more efficient and accountable care through innovative care delivery models and/or alternative payment methods.

   a. *Describe your organization's efforts to support these goals.*

   In addition to what has been presented, Porchlight VNA/Home Care has been working with a number of peer agencies across the state and with physician practices to embrace the expansion of home care services beyond the traditional model in ways that meet the state's C224 goals. We have developed and submitted, in conjunction with Rx2 Educate, a grant application to the federal Center for Medicare and Medicaid Innovation that combines our advancements in working directly with physicians and our monitoring technology. Our "Structured Clinical Care Coach" would assist physicians in the management of patients with chronic disease by placing a specially trained Clinical Care Coach/Medical Assistant in the office to support clinical staff by monitoring high-risk patients with the use of an in-home telemonitoring system. This system is capable of monitoring vital signs, weight, blood glucose, and oxygen saturations and has been shown to be particularly effective in managing patients with diabetes and cardiac disease. In addition, patients would be progressively educated about their disease process and are continuously involved in the self-management of their own care.

b. *What current factors limit your ability to promote these goals?*

1. Lack of consistent reimbursement for home-based chronic care management.
2. Lack of grant funding to test innovation in home care.
3. High, non-reimbursable costs associated with the building of Electronic Medical Record (EMR) portals to accommodate different settings and EMR formats.
4. Lack of attention to modeling post-acute care (across all payers) that support best most cost-effective setting given the patient clinical needs.

c. *What systemic or policy changes would support your ability to promote more efficient and accountable care?*

I would mention three:

- Modeling Patient Centered Medical Homes (PCMHs) to use home care skills rather than recreating them

  The movement toward PCMH is generally a positive one. However, we work with many small practices and it seems that the way the criteria is either drafted or understood, these practices seem to feel the need to build, rather than buy existing experienced case management support (which we are already required by federal regulation to have). This practice threatens to add another layer of costs into the system. Likewise, an essential PCMH performance measurement may well be their success in keeping patients out of hospitals and emergency rooms on evenings and weekends. Yet, many practices may find 24/7 operation to be too onerous. At Porchlight VNA/Home Care, we see greater potential for practice transformation to a PCMH to be more successful and less costly if the practice qualifications established by Massachusetts explicitly direct that practices build on (rather than seek to recreate) the existing home health competencies in areas such as care management and 24-hour patient support.

- Recognize the Role of Home Care in ACOs

  Require community-based providers on governing boards of ACOs. Recognize and encourage for new models of payment that embrace a methodology for fair allocations of global payments, the testing of creative, non-fee-for-service payments that are appropriately severity/risk adjusted, and pay/bonus for improvement. The CMS episodic method of reimbursement, which is used in fee for service as well as some Medicare managed care arrangements, should be used as the basis with the addition of a pay-for-performance risk pool.

- Rethink the State's Definition of Safety Net Providers

  The HPC and other state agencies need to expand their thinking as to what constitutes a safety net or endangered essential community provider, which at this point appears to be primarily defined as a community hospital. Porchlight VNA/Home Care and agencies that look and operate like us are, and can be even more supportive of, efforts to address not just patient care, but population health. We have strong local connections and community support based on a history of providing significant free care (that is not tracked in any community benefit database), of conducting public health clinics, administering flu shots, hosting community education, and sponsoring support groups on everything from bereavement to management of diabetes.

5. What metrics does your organization use to track trends in your organization's operational costs?

As a high-performing home health agencies, Porchlight VNA/Home Care has a complete management dashboard to measure our performance against like agencies locally, in New England, and nationally. See *Attachment B* for an example of our auditors New England operational indicators financial metrics.

Porchlight uses a host of productivity measures including time spent per visit on direct care, travel and administrative paperwork. We track visits per day for the agency and individual clinicians, visits per episode, and cost per visit per discipline. We track our census, our referrals, our short-stay episodes (called LUPAs by Medicare) as well as the case mix acuity of our patients.

Because payment from our largest payor, Medicare, are fixed per episode and dropping annually, we have had to remain extremely cost conscious. For example, in our care for wound care patients, we seek the most effective products at the lowest costs to deliver quickest healing time.

a. *What unit of analysis do you use to track cost structure?*
The key variables in our industry that we track are our cost per episode and cost per visit for all disciplines of services we provide.

b. *How does your organization benchmark its performance?*

All certified home health agencies are required to report clinical outcomes and process measures to CMS. Fifteen of these measures are posted on the federal Home Health Compare site. These are updated quarterly and available for benchmarking against state and national metrics. (See Appendix C example of report provided by our state Association Home Care Alliance of MA). Subsets of these measures are also available and updated quarterly on the Mass Hospital Association website Patient Care Link www.patientcarelink.org.)

c. *How does your organization manage performance on these metrics?*

Porchlight VNA/Home Care, like many in our sector, uses a private company Strategic Health Partners (SHP) for benchmarking our clinical performance. We are able to track our readmission rate per episode of care. Our rate at present is 11.3% versus a statewide rate of 17% and a national rate of 17%.

6. Please describe actions your organization has undertaken or plans to undertake to provide patients with cost information.

Whenever a patient is admitted to our services we provide them with a consent form (*Attachment D*). Details of the patient's costs and copays are completed upon the opening of a case. The patient signs this acknowledgement after reviewing it with the practitioner and validating an understanding of the costs.

7. After reviewing the reports issued by the Attorney General's Office and the Center for Health Information and Analysis, please provide any commentary on the findings presented in light of your organization's experience.

Porchlight VNA/Home Care has previously in this letter indicated support for the Attorney General's expressed concerns about the impact of rapid market consolidation on patient choice, cost and access to quality providers for vulnerable patients. This is a sentiment that most of the 60% of home health agencies that are unaffiliated with any health system share. We strongly believe that allowing ACOs to be too tightly formed along current hospital or organization-based alignments could consolidate market power in too few organizations and be a death knell for many of the state's oldest and most community-focused agencies.

The ACO architecture we believe must support broad participation possibly in a virtually integrated model from a broad portfolio of home health providers provided that they demonstrate quality outcomes and are able to engage in and support an ACO's performance measurements.

The market analysis of the Center for Health Information and Analysis (CHIA) has yet to fully look at post-acute services supply, demand, cost and quality. We recognize that this is on the agenda for the state's Health Planning Council, but the current composition of the home health care industry, their unique patterns of care delivery and their dual role as providers of both post-acute services and long-term care support services may need immediate attention.

On behalf of the patients, staff of Porchlight VNA/Home Care and other Massachusetts home health agencies, I appreciate the opportunity to offer this testimony.

I certify that I am legally authorized and empowered to present this testimony on behalf of Porchlight VNA/ Home Care. I sign it under the pains and penalty of perjury.

Holly Ann Chaffee RN BSN MSN

Holly Chaffee, RN, BSN, MSN
President, Chief Executive Officer

Attachments:

A. Telehealth Study
B. New England Operational Indicators
C. Samples Outcomes Dashboard
D. Patient Consent and Disclosure Form

THE COMMONWEALTH FUND

Case Studies In Telehealth Adoption

January 2013

Partners HealthCare: Connecting Heart Failure Patients to Providers Through Remote Monitoring

ANDREW BRODERICK

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ABSTRACT: Partners HealthCare's programs in home telehealth have been driven by its Center for Connected Health, which has pilot-tested and implemented telemedicine and remote monitoring solutions. The center focuses on practical innovations that can change patient behaviors to realize better clinical outcomes. The center's Connected Cardiac Care Program has enrolled more than 1,200 patients since its introduction in 2006 and has experienced an approximate 50 percent reduction in heart failure hospital readmission rates overall for enrolled patients. The center estimates the program has generated total cost savings of more than $10 million since 2006. Human factors and social processes have been important in successfully introducing telehealth technology solutions into workflow and patient care. Technology has also had a positive impact on patient activation and engagement in self-care, helping to demonstrate to providers that this new program supports behavior changes that lead to improved care and quality outcomes.

OVERVIEW

Partners HealthCare (Partners), an integrated health system in Boston, is undergoing a mission-driven, system-level transformation by aligning the organization with external forces shaping the future organization, financing, and delivery of health care. Its strategic initiatives center on making patient care more affordable and accountable through providing integrated, evidence-based, patient-centered care. Partners' strategy implementation group has been looking at performance improvement in a number of priority conditions. These initially included diabetes, acute myocardial infarction, coronary artery bypass graft surgery, stroke, and colorectal cancer, but other conditions will be added to the initial care redesign portfolio over time. Care redesign initiatives are working to move the organization from an episodic and specialty approach to a longitudinal, condition-based,

and patient-focused orientation. These include determining how technology can contribute toward improving care quality and cost-effectiveness and identifying strategies for their successful introduction into practice.

A key strategic priority at Partners has been to reduce 30-day readmissions to improve quality of care and patient satisfaction, and to minimize Partners' financial risk for potential reductions in Medicare payments. Initiatives that work toward meeting those goals include: providing patients with critical information at discharge to promote safer transitions, using transitions teams and health coaches, participating in the Center for Medicare and Medicaid Services' care coordination pilot demonstrations, and programs that connect chronic care patients with specialized outpatient care services.[1] Health information technologies, including patient-centered telehealth technologies, serve as a strategic tool across many of these process improvement initiatives. In the future, widespread use of connected health solutions at Partners will be driven by structural changes like new reimbursement models and the introduction of patient-centered medical homes.

Partners' Center for Connected Health (CCH)[2] leads the development of patient-centered telehealth solutions and remote health services for a variety of chronic health conditions, potentially leading to reductions in preventable readmissions. The shared goal of these telehealth solutions is to improve outpatient care management. Partners' experience with the implementation of technology into workflow and care management practices indicates that the technology has a positive impact on patient activation and engagement in self-care and plays a critical role in realizing better clinical outcomes. This evidence is critical in demonstrating to providers that this new program supports behavior changes that lead to improved care and quality outcomes. However, Partners' experience indicates that organizations must be prepared for potential implementation delays imposed by the current fee-for-service environment's adverse impact on staff behavior. To overcome workforce resistance, organizations must demonstrate to clinicians and other staff that new programs will support care and quality outcomes.

BACKGROUND

Boston-based Partners HealthCare is an integrated health system. In addition to the two academic medical centers, Brigham and Women's Hospital and Massachusetts General Hospital, the Partners' system includes community and specialty hospitals, community health centers, a physician network, home health and long-term care services, and other health-related entities. The spectrum of care offered at Partners includes prevention and primary care, hospital and specialty care, rehabilitation, and home care services. As one of the nation's leading medical research organizations and a principal teaching affiliate of Harvard Medical School, the nonprofit organization employs more than 50,000 physicians, nurses, scientists, and caregivers.

Partners' mission includes a commitment to its community and the recognition that increasing value and continuously improving quality are essential to maintaining operational excellence. Partners is also dedicated to enhancing patient care, teaching, and research and to taking a leadership role as an integrated health care system. The organization also prizes technology adoption and innovation to drive improvements in operations, productivity, and patient care. Its success to date in the large-scale adoption of electronic health record (EHR) and computerized physician order entry (CPOE) systems attests to the organizational culture of openness, preparedness, and ability to adapt to change. Such attributes have helped to ensure that the rollout of new technologies is minimally disruptive and seamless to workflow.

Partners has launched efficient care redesign efforts for five conditions—diabetes, acute myocardial infarction, coronary artery bypass graft surgery, stroke, and colorectal cancer—that reflect its shift toward longitudinal, condition-, and patient-focused orientation in care. The care redesign initiative is being led by Partners Community HealthCare (PCH), the management services organization for the Partners' network of physicians and hospitals. PCH encompasses more than 5,500 employed and affiliated physicians and seven acute care hospitals within the system. If opportunities

for using technology-enabled strategies to aid in redesigned care have been identified, Partners' Center for Connected Health will lead the design and development of patient-centered telehealth solutions and remote health services. PCH will help introduce them into practice across the Partners' network.

PERFORMANCE IMPROVEMENT INITIATIVES THAT REDUCE PREVENTABLE READMISSIONS

A top strategic priority at Partners is to reduce 30-day readmissions to improve the quality of patient care and patient satisfaction and minimize risk for reductions in Medicare payments. In a survey of Massachusetts hospitals, more than 10 percent of patients were reported to have been readmitted for the same or unrelated complaints within 30 days.[3] Processes that ensure seamless transitions from hospital to other care settings are essential. These include improvements in educating patients and caregivers, reconciling medications carefully before and after discharge, communicating with receiving clinicians, and ensuring prompt outpatient follow-up. Exhibit 1 illustrates 30-day readmission rates for heart failure, acute myocardial infarction, and pneumonia at selected Partners' hospitals.[4] Partners is currently pilot-testing several programs addressing patient safety,[5] experience,[6] and quality,[7] with a goal of reducing 30-day readmission rates for patients at high risk of readmission. These include programs that target critical failures in communication and information exchange during care transitions across settings and caregivers.

THE CENTER FOR CONNECTED HEALTH'S ROLE IN ADVANCING PATIENT-CENTERED TECHNOLOGY

In 1995, Partners established Partners Telemedicine to use consumer-ready technologies to enhance the patient–physician relationship and deliver remote care. This entity later evolved to become the Center for Connected Health. "Connected health" signifies new patient-centered technology strategies and care models that use information and communications technology—cell phones, computers, networked devices, and simple remote monitoring tools—to support the health care needs of patients in community-based settings without disrupting their day-to-day lives. CCH solutions help providers and patients manage chronic conditions, maintain health and wellness, and improve adherence, engagement, and clinical outcomes. To date, CCH has generated more than 100 scholarly publications and helped more than 30,000 patients. In 2011, CCH collected its one millionth vital life sign from program participants.[8]

CCH's programs use a combination of remote monitoring, social media, and data management applications to enhance patient adherence and engagement to realize improvements in care quality and cost outcomes. The center also supports mobile health initiatives, including a prenatal care text-messaging program

Exhibit 1. 30-Day Readmission Rates at Selected Partners Hospitals for Acute Myocardial Infarction, Heart Failure, and Pneumonia

	Brigham & Women's Hospital	Faulkner Hospital	Mass. General Hospital	Newton-Wellesley Hospital	North Shore Medical Center	U.S. National Rate
Acute myocardial infarction	21.1%	21.1%	22.1%	20.8%	18.6%	19.8%
Heart failure	23.7	27.0	23.7	23.8	22.8	24.8
Pneumonia	20.4	20.0	19.0	17.1	18.6	18.4

Partners HealthCare Data Period: July 1, 2007–June 30, 2010.
Partners HealthCare Source: Hospital Compare.
Reference Point Source: U.S. National Rate for Heart Failure, Acute Myocardial Infarction, and Pneumonia for Medicare Patients.

for expectant mothers, and wellness programs, such as Step It Up and Virtual Coach, that emphasize activity and exercise among elementary school children and overweight people, respectively. The center offers video-based, real-time consultations and an online second-opinion service, Partners Online Specialty Consultations. CCH recently spun off a health service company, Healthrageous, to provide self-management tools that offer personalized support and motivation in health and lifestyle management.

CCH focuses on applying technologies to conditions that have standard clinical measures of success or offer a clear business case in terms of the potential cost savings or return on investment. For example, the Medicare payment reductions associated with 30-day readmissions provides the heart failure program with a clear business case in terms of the negative financial implications from poor care outcomes. For management of diabetes, HbA1c is a well-accepted clinical marker used to measure success. One program that has been successfully piloted and implemented at scale across Partners is the Connected Cardiac Care Program (CCCP). It provides home telemonitoring and patient education over a four-month period to enable patients to collect frequent readings and become more engaged in their care.

Exhibit 2 outlines two connected models of care that are currently being deployed at Partners to address congestive heart failure, as well as diabetes and hypertension.

Exhibit 2. Connected Health Models of Care at Partners

The Diabetes Connect and Blood Pressure Connect programs offer patients and their care providers a way to track their blood sugar or blood pressure readings and to collaborate on establishing a shared care plan between office visits. These programs differ from the Connected Cardiac Care Program (CCCP), which uses a centralized telemonitoring model. Diabetes Connect and Blood Pressure Connect operate on a distributed model where each practice comes up with its own structure and protocols for managing patients. Nurses, certified diabetes educators, pharmacists, or primary care physicians can monitor patients' data. The driver to adopt is greater provider efficiency and quality outcomes, and less focus on cost savings. The programs help manage patients by providing structured data frequently and engaging patients actively in their care management. Both programs are available at several primary care practices affiliated with Massachusetts General and Brigham and Women's Hospitals, and through the Partners Community HealthCare network of physicians and hospitals.

Connected Health Program	Summary Description
Connected Cardiac Care Program	A centralized telemonitoring and self-management and preventive care program for heart failure patients that combines telemonitoring capabilities with nurse intervention and care coordination, coaching, and education. The daily transmission of weight, heart rate, pulse, and blood pressure data by patients enables providers to more effectively assess patient status and provide "just-in-time" care and patient education. The program has led to an approximate 50 percent reduction in heart failure–related hospital readmissions for participants.
Diabetes Connect ***Blood Pressure Connect***	Provide practices with tools for the self-management and monitoring of patients with diabetes and hypertension. A recent clinical study with 75 enrolled patients found that participants in Diabetes Connect achieved an average drop in HbA1c of 1.5 percent, while 22.3 percent of participants enrolled in Blood Pressure Connect achieved a 10mmHg or greater drop in systolic blood pressure, compared with 16.7 percent among nonparticipants.

Source: Center for Connected Health.

Care Outcomes

Remote monitoring improves the health of ambulatory patients who have been recently hospitalized for heart failure and leads to reductions in hospital readmissions. A 2006 pilot study of CCCP with 150 heart failure patients, with an average age of 70, who had been admitted to Massachusetts General Hospital and received six months of follow-up care did not reach statistical significance. However, the results indicated a positive trend in reducing readmissions (Exhibit 3). Sixty-eight patients received usual care for heart failure; the remaining 82 patients were offered remote monitoring. Forty-two patients accepted and 40 declined to participate. The remote monitoring group had a lower rate of all-cause readmissions compared with usual-care patients and nonparticipants. Patients in the remote monitoring group also had fewer heart failure–related readmissions. However, all-cause emergency room (ER) visits were higher among the remote-monitoring group than for usual care and nonparticipating patients. This higher frequency of reporting to the ER may be a result of closer monitoring.

Process Efficiencies

Initial studies of CCCP that involved patients receiving skilled nursing care from a home care provider found that introducing telemonitoring not only affected care outcomes but also indicated a trend toward a decreasing need for nurse visits. The studies did not have a large enough sample to definitively demonstrate cost savings, nor did they indicate that telemonitoring would replace home visits. However, telemonitoring was seen as providing a critical adjunct to patient care and workload efficiency for nurses. The impact was significant enough to support adoption of telemonitoring as part of the care plan for heart failure patients. This led Partners in 2007 to fund the program's expansion systemwide for all heart failure patients that met the inclusion criteria. To date, more than 1,200 patients have been enrolled. Exhibit 4 shows that the proportion of enrollees in CCCP with one or more heart failure hospitalizations in the year following disenrollment was 13.3 percent compared with 39.8 percent one year prior to enrollment.

User Satisfaction

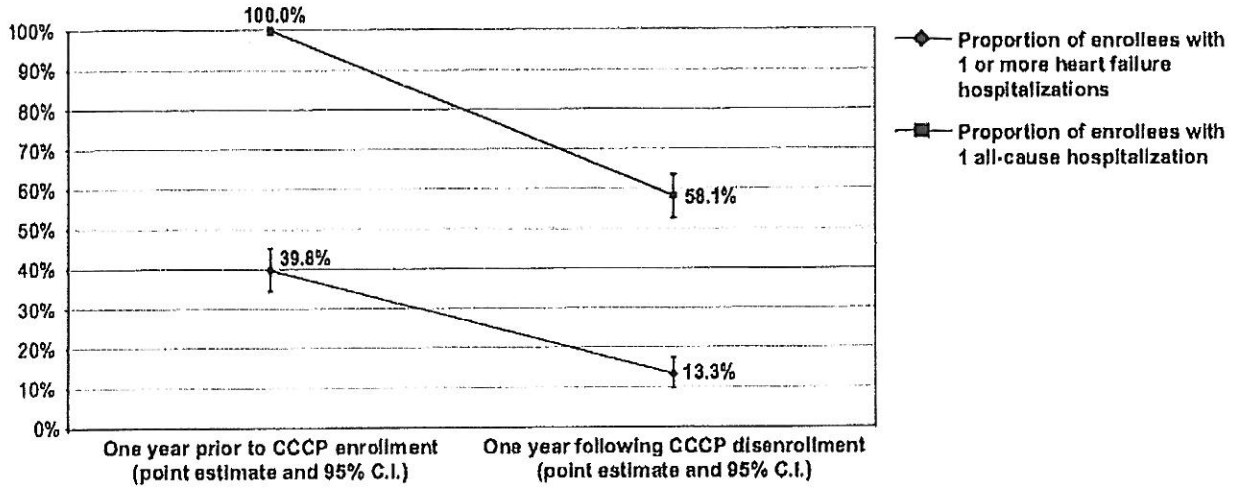
Eleven research studies were conducted at Partners-affiliated hospitals to measure patient perceptions of connected health technologies; namely, if patients feel empowered to better manage their care, if they have increased satisfaction with care, and if their overall health is improved.[9] Patients in CCCP reported the

Exhibit 3. Remote Monitoring CCCP Pilot Results at Six-Month Follow-Up

	Control (n=68) Mean rate (± standard deviation)	Intervention (n=42) Mean rate (± standard deviation)	Nonparticipant (n=40) Mean rate (± standard deviation)	P-value
Hospital readmissions				
• All-cause	0.73 (±1.51)	0.64 (±0.87)	0.75 (±1.05)	.75
• Heart failure–related	0.38 (±1.06)	0.19 (±0.45)	0.42 (±0.93)	.56
Emergency room visits				
• All-cause	0.57 (±1.43)	0.83 (±1.08)	0.65 (±1.0)	.10
• Heart failure–related	0.25 (±1.02)	0.26 (±0.49)	0.35 (±0.80)	.31
Length of stay				
• All-cause	10.64 (±9.7)	9.16 (±9.00)	13.2 (±13.4)	.85
• Heart failure–related	8.52 (±8.3)	10.57 (±12.5)	10.78 (±9.1)	.78

Source: A. Kulshreshtha, J. C. Kvedar, A. Goyal et al., "Use of Remote Monitoring to Improve Outcomes in Patients with Heart Failure: A Pilot Trial," *International Journal of Telemedicine and Applications*, published online May 19, 2010.

Exhibit 4. Proportion of Connected Cardiac Care Program Enrollees with One or More Hospitalizations



Data include 332 CCCP enrollments among 301 unique patients discharged from the CCCP program prior to July 1, 2009. Results are similar within more recent cohorts of enrollees discharged from the program prior to October 1, 2009, and prior to January 1, 2010.

program increased their confidence and improved their understanding of heart failure and helped them avoid hospitalizations (Exhibit 5). Of the 20 participants in the pilot's remote monitoring group who returned the satisfaction survey, high levels of program satisfaction were recorded (93%). All patients reported that the equipment was easy to use, resulted in greater confidence to self-manage, and helped them stay out of the hospital. In general, once patients are enrolled in the program, less than 10 percent opt out of the program. Those that do drop out usually do so because of personal factors, such as preferences, and not as a result of problems with the technology. Diabetic patients report that blood sugar monitoring was most

Exhibit 5. Results of Connected Cardiac Care Program Patient Satisfaction Survey

- **98%** of patients reported learning more information about heart failure because of being enrolled in the CCCP
- **85%** reported they felt in control of their health because of the program
- **85%** reported they were able to gain control over their heart failure while in the program
- **82%** reported they were able to stay out of the hospital because of the program
- **82%** reported they were able to avoid the emergency room because of the program
- **77%** reported they will continue to check their weight daily
- **64%** reported they are confident that they can independently manage their heart failure
- **77%** reported they would like their treatment providers to offer this program to other heart failure patients

Note: A subset of CCCP participants returned the satisfaction survey (n=93).
Source: Center for Connected Health.

valuable when they were newly diagnosed or trying to regain control of their diabetes. Electronic communication between providers and patients outside of scheduled office visits was perceived as important in improving diabetes management.

THE CONNECTED CARDIAC CARE PROGRAM

CCCP is developing new ways to help patients at risk for hospitalization to manage their heart disease, by integrating technology into remote patient care and supporting self-monitoring. Contract changes to the Medicare payment structure for the home care industry—in which Medicare provided a prospective payment rate for up to 60 days of service—presented an impetus to create CCCP. Partners HealthCare at Home (PCAH), one of the region's largest home care providers, partnered with the Center for Connected Health to develop CCCP, and provides all of the telemonitoring nurses and clinical support for the program. PCAH, which is recognized as a top-performing agency by the Centers for Medicare and Medicaid Services, offers medical, therapeutic, and supportive home-based services for patients who are recovering from a hospitalization, managing chronic illness, or those who need assistance to remain in their own homes.

CCCP's core components are care coordination, education, and development of self-management skills through telemonitoring. Patients use equipment—a home monitoring device with peripherals to collect weight, blood pressure, and heart rate measurements, and a touch-screen computer to answer questions about symptoms—on a daily basis for four months. Telemonitoring nurses monitor these vitals, respond to out-of-parameter alerts, and guide patients through structured biweekly heart failure education (Exhibit 6). This concentrated effort is effective in meeting the primary goal of reducing hospital readmissions.

PCAH was initially interested in using telehealth under the new Medicare reimbursement model to leverage staff across more patients. Heart failure was targeted as a priority condition because of the high costs involved in caring for heart failure patients and the potential savings from preventing unnecessary admissions to hospitals. The support of Partners' senior leadership was critical to the program's expansion. In particular, the leadership's interest in connected health solutions as a way to augment care delivery system-wide and its commitment of funds to support the development of the program have been critical to scaling CCCP across Partners' network.

CCCP allows patients to monitor their physiological health on a daily basis and provides a virtual link to their health care team from their home. Daily monitoring, "just-in-time" teaching—based on the immediacy of interventions in response to monitored patient data—and weekly structured education sessions help patients become aware of their daily behaviors. This impact leads to changes in behavior and the development of new self-management skills. The CCCP team provides the technology, support, and training. It also installs equipment in patients' homes and shows them how to use it. PCAH and other clinical partners provide the expertise for successfully designing and implementing the technology for use in care practices.

There is no cost to patients to enroll or for use of the equipment. The program is open to all patients with a Partners' affiliated primary care physician or cardiologist. Patients are referred by hospital case managers, nurse practitioners, primary care physicians, cardiologists, and other clinicians. Since the inception of CCCP in 2006, the program has included eligible patients from across the Partners HealthCare system on an opt-out basis.

Evaluations of CCCP have been limited to before and after evaluations rather than randomized controlled trials. Such assessments have shown a positive, sizable effect in reducing readmissions, which increased the comfort level among Partners senior leadership with the intervention. There has also been ongoing iterative research using small groups of people to assess the intervention and identify the need for modifications. CCH has also been working with PCH to test effective adoption and the role of financial incentive mechanisms to facilitate spread. CCH's in-house

analysis estimates that the program has generated total cost savings of more than $10 million since 2006 for the more than 1,200 enrolled patients (Exhibit 7).

LESSONS LEARNED IN TAKING CCCP FROM PILOT TO SCALE

Partners' experience with connected health technologies and with successfully implementing telehealth-enabled programs across the provider network highlights the significant potential value of transforming care delivery, improving care outcomes, and lowering costs. Social processes are as important in ensuring program success as are the technical factors. Key social factors include leadership support and the championing of technology, the integration of patient data into the workflow to enable providers to more effectively assess patient status and provide just-in-time care and education, and using personal health data to help educate and motivate patients to make necessary lifestyle changes. Even though it has not always been met with immediate success, the organization has persevered to introduce telehealth-enabled care management solutions, to generate evidence of impact, and to use that evidence to advocate for broader deployment across the provider network. This experience imparts important lessons for the successful planning, implementation and deployment of telehealth-enabled care management programs at scale and for identifying future opportunities for continued program advances in patient care management.

Exhibit 6. Key Features of the Connected Cardiac Care Program

- ✓ Four-month home telemonitoring of congestive heart failure patients by a telemonitoring nurse
- ✓ Intervention by telemonitoring nurse based on physician orders
- ✓ Interactive patient education and lifestyle management
- ✓ Reports posted in electronic health record with email alerts to physicians and nurse practitioners
- ✓ No cost to the patient
- ✓ Open to patients with a Partners' affiliated primary care physician or cardiologist

Who is eligible?

- Patients age 18 and older with a diagnosis of heart failure
- Patients considered to be at high risk for hospitalization
- Patients who have a Partners' affiliated primary care physician or cardiologist
- Patients covered by Medicare, Medicaid, or certain patients in the safety net*
- Patients able to speak and read English**
- Patients mentally competent and willing**
- Patients with a traditional phone line

Who is not eligible?

- Patients currently receiving skilled home care services***
- Patients with end-stage renal disease on dialysis
- Patients with organ transplant
- Patients in hospice
- Patients with an active cancer diagnosis
- Patients who reside in nursing homes
- Patients who do not have a stable environment to conduct the monitoring
- Patients with any physical disability that precludes use of telemonitoring equipment

* Limited funding available for some patients with commercial insurance.
** Or those with a primary caregiver willing to assume responsibility for telemonitoring.
*** Exception: Partners' Health at Home skilled Medicaid and commercial patients.
Source: Partners HealthCare System, Connected Cardiac Care Program, http://www.connected-health.org/media/224132/cccp summary 6 2 11.doc.

Exhibit 7. Reducing Hospital Readmissions with the Connected Cardiac Care Program

Program outcomes

- ✓ 51% reduction in heart failure hospital readmissions*
- ✓ 44% reduction in non–heart failure hospital readmissions*
- ✓ Improved patient understanding of heart failure and self-management skills
- ✓ High levels of clinician and patient acceptance and satisfaction

Savings**

A case study prepared by the Center for Connected Health outlines the following cost savings:

Cost of CCCP:	$1,500 per patient
Total savings from reduction in hospitalizations:	$9,655 per patient
Total net savings:	$8,155 per patient
Total savings:	$10,316,075 for 1,265 monitored patients since 2006

* N=332 patients

** This program targeted reductions in unplanned heart failure and non–heart failure related admissions. The savings realized factor involves the cost of running the program, including marketing, referral management, telemonitoring nurse support, and technology

Source: Center for Connected Health.

Patient Activation and Engagement Are Critical to Program Success

With the decision by PCAH to use telehealth to leverage staff across more patients in response to Medicare reimbursement changes, CCH became a strategic partner to PCAH. CCH and PCAH collaborated in the design of the technology-enabled clinical program, the selection of the technology, and the staffing of the operational model. Both parties market and perform outreach of CCCP to patient referral sources. There was a low level of adoption in the initial phase of the program. Nurses at first saw CCCP as driving a wedge between them and their patients. They resisted the introduction of the program and the replacement of the more traditional high-touch approach to care. An important factor in overcoming that initial pushback from staff—and an important lesson for the adoption of patient-centered technology in general—is the positive impact the technology has once it's placed in patients' hands. With CCCP, patients felt more connected and nurses learned to develop relationships with patients accordingly with the help of technology. Another important insight in terms of adoption is that patients need to be aware that the provider is engaged in order for them to regularly use the technology as a self-management tool.

Automatic Enrollment of Patients Improves Clinician Involvement and Satisfaction

As the program was extended beyond home care throughout the Partners system, pushback came from other sources, primarily primary care physicians and cardiologists, such that physician referrals and enrollment into the program were challenged. The program struggled initially but the key watershed point came with the decision to change patient enrollment to an opt-out process. Once a patient is identified for enrollment in CCCP, clinicians are responsible for notifying CCCP that they do not want the patient in the program. As a result, enrollment has increased, readmission rates have declined, and satisfaction levels among doctors have increased as benefits in patient care became evident. The refusal rate to participate among doctors went from 10 percent to less than 1 percent.

Data Can Motivate and Empower Clinicians and Patients

Outcomes in controlled trials, as well as in before-and-after studies, have consistently demonstrated an approximate 50 percent drop in cardiac-related readmissions for patients enrolled in CCCP. One drive of that outcome is patients learning self-management skills and receiving constant feedback about how lifestyle factors affect health outcomes. Another is just-in-time care, whereby remote monitoring and intervention by nurses sends a strong message to patients that they are accountable. CCH's commitment to research allows the organization access to the data and studies to counter resistance and arguments from clinicians about the impact on quality and patient experience. CCH is also able to prepare the business case and concomitant cost-savings argument. But the traditional business case approach cannot convey the full impact that other factors, such as patient experience and staff satisfaction, have on improved health outcomes and higher quality of care.

New Technology-Enabled Solutions Do Not Fit Old Policy Frameworks

CCH faces challenges in optimizing the impact of connected health programs on care outcomes. The current fee-for-service environment can present a mental barrier for clinicians, and pilots involving financial incentives that reward provider engagement have not led to significant behavior change. Many doctors view the move toward a patient-centered medical home as requiring more staff, such as nurses and pharmacists, rather than an opportunity for leveraging technology in support of fewer staff. While the widespread use of connected health solutions will require structural changes in the form of reimbursement and new care models like the patient-centered medical home, a significant amount of work remains to be done in promoting the use of technology to leverage existing staff across more patients.

IMPLICATIONS FOR U.S. HEALTH CARE ORGANIZATIONS

Being in an integrated delivery network that owns a home care service business has allowed Partners to be ahead on the adoption curve with telehealth relative to other health systems. Organizations—particularly ones lower on the adoption curve—that are considering technology-enabled solutions will need to address the following issues: establishing acceptance that the technology can clinically make a difference, identifying the method by which the organization will implement and integrate the technology, determining whether a one-size-fits-all approach will be feasible across the network or system, and evaluating whether the prevailing financial system can support an economical approach to scaling.

From an organizational readiness perspective, it is critical to recognize the role of champions who understand workflow and also to understand the requirements for successfully integrating solutions into practice. To gain buy-in from staff, it is important to put the data in the hands of motivated individuals, like clinicians who want to help their patients. It is also important to aggregate external data, integrate it with clinical health information systems, and communicate it to patients and providers alike. Data cannot be maintained in separate data silos and must be placed in the EHR to be meaningful and useful in clinical decision support. Patients need access to the patient portal, with the ability to retrieve clinical information and perform administrative functions. CCH has invested significant resources in developing a platform to support the integration and management of data, which will also serve as a platform for the development and implementation of other applications.

However, recognizing that not all systems are equal in the U.S. health care delivery system, CCH's experience also points to common pitfalls to avoid rather than just best practices to adopt. A common mistake is attempting to shoehorn a connected health program into the traditional care model. Technologies such as telemonitoring can be disruptive to workflow and represent a change in the way care is delivered.

Organizations often tend to view connected health solutions as simply requiring a technical interface to existing programs rather than a redesign of the care delivery model. Partners' experience indicates that connected health requires a different mind-set to program design and execution. Otherwise, there is a low likelihood that it will change practice and lead to desired outcomes. Looking forward, Partners is developing a predictive algorithm as a screening strategy of a hospitalized patient's risk for readmission. This will help contribute toward a more aggressive segmentation of the population and tiering of the program to meet the needs of more acute patients on discharge and to manage them so they can exit the program.

Dedicating staff members to the implementation and oversight of the program is more critical than the technology itself in understanding why programs sometimes fail. But often, many technology-enabled solutions in health care fail to recognize the need for solutions that are social in nature rather than solely technological. In the current fee-for-service environment, organizations have to also be prepared for the delays that payment system can impose on staff behavior. Organizations must show clinicians that connected health programs will support care and quality outcomes, while planning workflow changes very carefully and taking the time and making the effort to work methodically and systematically through issues that may arise. Finally, it takes time to integrate technology into health delivery and to allow staff to adapt to the new work model. As a result, structure, coordination, planning, and setting goals, as well as expectations, for the program are critical preparatory steps for success.

How This Case Study Was Conducted

This case study was developed through interviews with staff from Partners HealthCare and the Center for Connected Health and a review of both organizations' websites. From the Center for Connected Health, we would like to acknowledge Dr. Joseph Kvedar, director; Rob Havasy, project specialist; Regina Nieves, connected cardiac care coordinator; and Khinlei Myint-U, corporate manager, product development and communications; At Partners HealthCare, we would also like to acknowledge the contributions of Alex Baker, former chief operating officer, Partners Community HealthCare. Partners' quality, safety, and efficiency measures are available at High Performance Medicine (http://qualityandsafety.partners.org/).

The other organizations profiled in our Case Studies in Telehealth Adoption series are the Veterans Health Administration's Care Coordination/Home Telehealth program and Centura Health's Centura Health at Home program. To read them, along with a synthesis of findings from all three case studies, visit our website at http://www.commonwealthfund.org/Publications/Case-Studies/2013/Jan/Telehealth-Synthesis.aspx.

NEW ENGLAND VNAs

OPERATIONAL INDICATORS - AVERAGES

BASED ON LAST COMPLETED FISCAL YEAR AS OF JUNE 19, 2013

ATTACHMENT B

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June 19, 2013

New England VNAs

We have prepared indicators consisting of home care providers. These providers represent over 75 New England VNAs.

The appendices include organizational wide comparisons as follows:

- Most profitable
- Least profitable
- New England average
- State average
- Comparable size average

Profitability for identifying most and least profitable providers is measured based on the percentage of excess of revenue over expenses as a percentage of net patient service revenue. The percentage rather than the dollar amount determines the most profitable and least profitable providers.

Please note the providers included in the organizational wide most profitable and least profitable providers are the same throughout all indicators. The objective in identifying these providers is to help identify correlation between the indicator and financial profitability.

Providers are segmented by revenue for purposes of identifying comparable size providers as follows:

- Under $5,500,000
- $5,500,000 to $11,000,000
- Over $11,000,000

For certain indicators, a comparison will also be based on the indicator itself. Where appropriate, performance is based on the indicator alone regardless of organizational wide profitability. This indicator will provide the performance range for each indicator presented.

Sincerely,

Brad Borbidge, CPA

NEW ENGLAND VNAs

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NEW ENGLAND VNAs

OPERATIONAL INDICATORS - AVERAGES

BASED ON LAST COMPLETED FISCAL YEAR AS OF JUNE 6, 2013

PPS Operational Indicators

				State Averages						Comparable Size Averages (Revenue)				
	Most Profitable	Least Profitable	New England VNA Average	ME	NH	MA	VT	CT	RI	Under $5,500,000	Between $5,500,000 & $11,000,000	Over $11,000,000	Rural	Urban
PPS surplus as a percentage of PPS net revenue	20.62%	10.32%	18.13%	11.71%	13.09%	20.45%	8.41%	22.12%	18.07%	17.95%	14.08%	17.87%	9.89%	17.73%
Key Indicators - Revenue														
Average revenue per non-LUPA episode	$3,041	$2,766	$3,053	$2,798	$2,896	$3,145	$2,776	$3,189	$3,056	$3,009	$2,992	$3,083	$2,915	$3,175
Average case mix multiplier for non-LUPA episodes	1.3613	1.2546	1.3106	1.3655	1.3045	1.3207	1.2878	1.2806	1.3570	1.2689	1.2921	1.3237	1.3343	1.3547
Percentage of LUPA episodes	13.63%	15.41%	13.36%	14.63%	11.87%	14.40%	14.17%	12.21%	11.28%	11.01%	12.91%	13.91%	12.12%	13.62%
Non-LUPA episode per Medicare unduplicated patient count	1.27	1.29	1.24	1.19	1.21	1.19	1.24	1.23	1.37	1.32	1.29	1.20	1.20	1.23
Key Indicators - Cost														
Average cost per non-LUPA episode	$2,404	$2,475	$2,491	$2,464	$2,512	$2,491	$2,539	$2,474	$2,496	$2,463	$2,565	$2,523	$2,546	$2,526
Visits per non-LUPA episode														
Nursing	7.64	8.40	8.40	7.83	7.88	8.94	7.45	8.65	7.51	8.76	8.12	8.23	7.32	8.34
Physical therapy	4.20	3.39	4.39	4.12	4.53	4.35	3.96	4.57	4.80	4.60	4.24	4.61	4.19	4.56
Occupational therapy	1.41	1.01	1.25	1.58	1.54	1.31	0.97	1.08	1.09	1.02	1.06	1.19	1.25	1.14
Speech pathology	0.21	0.19	0.17	0.22	0.20	0.16	0.16	0.14	0.17	0.12	0.19	0.19	0.19	0.18
Social worker	0.36	0.23	0.29	0.36	0.37	0.22	0.30	0.35	0.24	0.26	0.26	0.26	0.35	0.25
Aide	2.61	4.72	3.71	2.71	2.64	2.43	5.18	5.84	2.68	4.03	4.26	3.64	3.64	3.82
Total	16.43	17.94	18.21	16.82	17.16	17.41	18.02	20.63	16.49	18.79	18.13	18.12	16.94	18.29

NEW ENGLAND VNAs

OPERATIONAL INDICATORS - AVERAGES

BASED ON LAST COMPLETED FISCAL YEAR AS OF JUNE 6, 2013

Visit Cost Analysis

	Most Profitable	Least Profitable	New England VNA Average	State Averages: ME	NH	MA	VT	CT	RI	Comparable Size Averages (Revenue): Under $5,500,000	Between $5,500,000 & $11,000,000	Over $11,000,000	Rural	Urban
Discipline														
Home Care														
Skilled nursing care	$ 130.31 vs	$ 147.51 vs	$ 151.27 vs	$ 153.69 vs	$ 157.37 vs	$ 151.50 vs	$ 154.50 vs	$ 145.10 vs	$ 166.81 vs	$ 143.69 vs	$ 158.08 vs	$ 158.18 vs	$ 166.46 vs	$ 156.51 vs
Physical therapy	151.97 vs	162.65 vs	148.94 vs	159.21 vs	151.34 vs	149.01 vs	169.19 vs	141.38 vs	139.71 vs	148.68 vs	147.98 vs	141.78 vs	163.16 vs	141.93 vs
Occupational therapy	145.57 vs	151.22 vs	152.07 vs	149.92 vs	162.52 vs	148.29 vs	185.37 vs	138.79 vs	172.31 vs	158.51 vs	144.91 vs	145.23 vs	175.53 vs	143.63 vs
Speech pathology	186.77 vs	224.00 vs	191.64 vs	209.52 vs	171.43 vs	194.37 vs	242.06 vs	154.80 vs	167.95 vs	161.34 vs	169.79 vs	175.34 vs	203.52 vs	171.48 vs
Medical social worker	208.06 vs	390.04 vs	228.89 vs	221.92 vs	203.22 vs	245.80 vs	287.37 vs	186.72 vs	335.37 vs	197.66 vs	243.49 vs	215.02 vs	221.48 vs	219.38 vs
Home health aide	56.79 vs	67.22 vs	57.92 vs	67.42 vs	69.48 vs	59.69 vs	65.17 vs	53.54 vs	71.71 vs	57.69 vs	69.04 vs	63.14 vs	67.16 vs	63.62 vs
Hospice														
Skilled nursing care	$ 184.77 vs	$ 274.64 vs	$ 218.02 vs	$ 191.78 vs	$ 200.68 vs	$ 230.60 vs	$ 208.52 vs	$ 237.62 vs	$ 203.25 vs	$ 224.46 vs	$ 216.37 vs	$ 218.05 vs	$ 198.05 vs	$ 223.33 vs
Medical social worker	262.38 vs	291.72 vs	203.21 vs	185.58 vs	183.62 vs	205.27 vs	244.93 vs	209.39 vs	264.03 vs	284.19 vs	230.52 vs	187.45 vs	220.92 vs	198.51 vs
Home health aide	68.69 vs	68.04 vs	63.54 vs	71.97 vs	58.61 vs	57.79 vs	73.24 vs	63.62 vs	80.25 vs	80.35 vs	55.91 vs	65.42 vs	71.03 vs	62.54 vs

Nursing Productivity Analysis - Home Care Program

Time To Perform (Hours Per Visit)														
Visit	0.75	0.74	0.79	0.76	0.90	0.72	0.83	NA	0.91	0.82	0.85	0.78	0.88	0.78
Travel	0.25	0.29	0.29	0.40	0.33	0.23	0.33	NA	0.36	0.30	0.32	0.28	0.34	0.28
Prepost	0.54	0.74	0.55	0.56	0.55	0.53	0.60	NA	0.38	0.63	0.57	0.54	0.58	0.55
Direct Service Time	1.54	1.77	1.63	1.72	1.78	1.48	1.76	NA	1.65	1.75	1.74	1.60	1.80	1.61
Visits Per 8-hour Day	5.19	4.52	4.91	4.65	4.49	5.41	4.55	NA	4.85	4.57	4.60	5.00	4.44	4.97

NEW ENGLAND VNAs

OPERATIONAL INDICATORS - AVERAGES

BASED ON LAST COMPLETED FISCAL YEAR AS OF JUNE 6, 2013

Hospice Operational Indicators

				State Averages						Comparable Size Averages (Revenue)				
	Most Profitable	Least Profitable	New England VNA Average	ME	NH	MA	VT	CT	RI	Under $5,500,000	Between $5,500,000 & $11,000,000	Over $11,000,000	Rural	Urban
Profitability (as a percentage of revenue)														
Hospice surplus (loss) including contributions	33.16%	-18.35%	12.62%	21.71%	17.12%	10.23%	19.79%	n/a	10.79%	7.57%	16.24%	12.49%	22.72%	10.59%
Hospice operating surplus (loss)	31.74%	-21.56%	10.33%	20.70%	15.35%	7.07%	18.03%	n/a	9.32%	4.51%	13.55%	10.54%	21.21%	8.17%
Frequency of Visits (Utilization) (Visits Per Routine Day)														
Nursing	0.25	0.33	0.30	0.28	0.32	0.28	0.27	n/a	0.34	0.27	0.32	0.30	0.29	0.30
Social worker	0.02	0.07	0.06	0.06	0.08	0.06	0.04	n/a	0.04	0.06	0.05	0.07	0.06	0.06
Aides	0.31	0.29	0.33	0.33	0.34	0.31	0.24	n/a	0.42	0.31	0.32	0.34	0.29	0.34
Total	0.58	0.69	0.69	0.67	0.74	0.65	0.55	n/a	0.80	0.64	0.69	0.71	0.64	0.70
Cost Per Patient Day (Dollars)														
Direct non-labor patient costs	22.69	23.62	20.80	18.02	20.61	21.19	23.35	n/a	19.05	20.70	19.92	20.94	20.79	20.65
Volunteer, bereavement, counseling services	2.40	7.53	5.88	6.90	5.70	6.03	5.48	n/a	3.05	5.32	5.60	5.96	6.00	5.77
Medical director	1.90	8.89	3.03	1.20	2.94	3.68	4.42	n/a	5.11	2.04	2.61	3.31	2.89	3.06
Hospice Contributions (Dollars)	3.38	5.48	4.63	1.93	3.47	6.58	3.56	n/a	2.85	6.16	5.40	3.96	3.07	4.89
Average Cost Per Routine Day	$ 109.64	$ 246.03	$ 156.48	$ 119.75	$ 139.54	$ 174.10	$ 133.29	n/a	$ 161.84	$ 178.17	$ 146.40	$ 155.98	$ 125.01	$ 164.04
Average Daily Census	16	19	47	80	29	62	28	n/a	25	19	34	74	31	56
Average Length of Stay - All	71	42	47	49	54	46	52	n/a	46	56	52	46	56	46

Most and least profitable are based on profitability of the hospice program, not organizational wide profitability

NEW ENGLAND VNAs

OPERATIONAL INDICATORS - AVERAGES

BASED ON LAST COMPLETED FISCAL YEAR AS OF JUNE 6, 2013

Financial Ratios

				State Averages						Comparable Size Averages (Revenue)				
	Most Profitable	Least Profitable	New England VNA Average	ME	NH	MA	VT	CT	RI	Under $5,500,000	Between $5,500,000 & $11,000,000	Over $11,000,000	Rural	Urban
Number of days expense in operating cash and investments (including assets limited as to use)	460	201	202	255	158	264	221	141	79	234	196	155	222	162
Long-term debt to unrestricted net assets ratio	0.02	0.00	0.05	0.00	0.11	0.02	0.04	0.06	n/a	0.04	0.01	0.13	0.04	0.10
Percentage of community support to expenses	2.50%	4.20%	2.11%	1.64%	2.92%	1.43%	3.49%	2.32%	1.84%	4.19%	2.33%	1.01%	3.89%	1.23%
Net Patient Service Revenue Mix														
Medicare	68%	54%	65%	72%	73%	64%	56%	n/a	65%	67%	63%	63%	68%	63%
Medicaid	12%	25%	10%	6%	8%	7%	28%	n/a	2%	12%	11%	12%	15%	11%
Other	20%	21%	24%	22%	18%	29%	16%	n/a	33%	21%	26%	24%	17%	26%
Total	100%	100%	100%	100%	100%	100%	100%	n/a	100%	100%	100%	100%	100%	100%
Excess (deficit) of revenue over expenses as a percentage of operating revenue (excluding investment activity)	9.27%	-3.92%	2.29%	4.68%	3.87%	1.54%	1.44%	2.66%	0.40%	3.29%	2.61%	1.52%	4.46%	1.57%
Days revenue in accounts receivable net of deferred revenue	35	37	42	39	38	45	33	46	34	41	41	50	37	49
Bad debts as a percentage of net patient service revenue	1.27%	1.14%	0.55%	0.73%	0.53%	0.69%	1.22%	0.09%	0.29%	0.28%	0.39%	0.43%	0.90%	0.36%

LEE REGIONAL VNA, INC. d/b/a PORCHLIGHT VNA
PATIENT SERVICE PLAN & CONSENT FORM

Patient Client Name:_____

DISCIPLINE	DATE EFFECTIVE	ESTIMATED VISIT FREQUENCY & DURATION	PAY SOURCE	INSURANCE PAYMENT	PATIENT CHARGE (up to and including)
SKILLED NURSING					$
HOME HEALTH AIDE					$
PHYSICAL THERAPY					$
OCCUPATIONAL THERAPY					$
SPEECH THERAPY					$
MEDICAL SOCIAL WORK					$
DME/SUPPLIES					$

1. **CONSENT FOR SERVICE: I voluntarily consent to any examinations and therapeutic treatments** prescribed by my physician(s) and rendered by the professional and support staff of Porchlight VNA. I understand that I have the right and the responsibility to participate in the development of my plan of care.

2. **RESPONSIBILITY FOR PAYMENT / ASSIGNMENT OF BENEFITS: I give permission to my insurance carriers**, including Medicare and Medicaid, to make direct payment of my authorized benefits to Porchlight VNA for services and supplies provided to me. **I understand that I am financially responsible for all charges incurred for services and supplies rendered**, including any deductibles, co-payments, or services not covered by insurance. I understand that I will be informed by Porchlight VNA verbally and in writing as soon as possible of any change in payment; notification will be no later than thirty (30) calendar days from the date the agency becomes aware of the change. A finance charge of 1.5% will be incurred monthly for untimely payment. I agree to the fee and service plan stated above.

3. **NONDISCRIMINATION**: I understand that Porchlight VNA renders services without regard to race, color, religion, disability, gender, sexual preference, or national origin.

4. **ACKNOWLEDGMENT OF RECEIPT OF INFORMATION: I have received the Patient Handbook** which contains the Patient Bill of Rights and Responsibilities, information on advance directives, instruction on safety and infection control, the Statement of Patient Privacy Rights regarding the Outcome and Assessment Information Set (OASIS), and Porchlight VNA privacy practices as required by HIPAA.

5. **AUTHORIZATION OF RELEASE OF INFORMATION: I hereby authorize PORCHLIGHT VNA to request and/or release any and all information from my medical and billing records necessary** for treatment and coordination of Porchlight VNA with community services (including emergency planning), accrediting agencies, regulatory agencies, and associated payment sources. Information may be released to determine entitled benefits and/or to determine the quality of care being provided to me.

   I authorize PORCHLIGHT VNA to release any information contained or included in the Outcome and Assessment Information Set (OASIS) to CMS and its agents. I permit a copy of the authorization to be used in place of the original. I understand that my health records are confidential and that they are the sole property of Porchlight VNA.

   Porchlight VNA will only disclose your information for the purpose of treatment, payment, business operations, technical support from its business partners, or when required by law. Information authorized for release may include records that indicate the presence of communicable or venereal diseases, which may include hepatitis, syphilis, gonorrhea, human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS). **I give consent to Porchlight VNA to provide information regarding precautionary measures related to communicable diseases to those in close contact with me**. I acknowledge and understand that PORCHLIGHT VNA has a legal obligation to report communicable diseases to the appropriate authorities. All other information requested and/or released by Porchlight VNA will require a signed Release of Medical Information Form, a subpoena, or a court order.

6. **CERTIFICATION OF PATIENT INFORMATION**: I certify that the insurance information I have provided is correct.

I agree to notify Porchlight VNA, regarding changes in my insurance coverage.

SIGNATURE OF PATIENT OR REPRESENTATIVE*:_____ DATE:_____

*An Authorized Representative signs only when the patient is unable to sign.

The Authorized Representative signs the patient's name, own name, date, relationship to patient and reason patient is unable to sign.

SIGNATURE OF STAFF MEMBER:_____ DATE:_____