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INTRODUCTION AND OVERVIEW:  
AN EVOLUTION IN HOME-BASED CARE

BACKGROUND
Researchers and demographers tend to identify phases of an evolution after they occur and establish distinctive beginning and end points for each phase. The health care industry, however, doesn’t have the luxury of time to study and evaluate different phases in the current real-time evolution of care delivery and payment models. Every provider, payer and delivery segment is experiencing the same rapid fire change and “growing pains.” While we can identify a critical launch point, passage of the Affordable Care Act in 2010, we cannot at this point clearly distinguish the phases or predict the arrival at the desired end point: reliable high quality, patient-centered care.

VNAA has started with a broader view to consider the industry’s evolution over time and to identify the shifting environments and opportunities for home-based care in each phase and in the future. Historically, we’ve considered the Lillian Wald approach as home care Version 1.0, focused on maternal and child health in an era when women gave birth at home and child mortality rates were high. We’ve identified home care Version 2.0, focused on post-acute care with the 1966 implementation of the landmark Medicare benefit for senior citizens. Today, VNAA considers the post-ACA implementation phase Version 3.0. In this current version, home-based care providers offer care across a continuum ranging from health and wellness, through risk mitigation, chronic disease management, traditional post-acute care, palliative care and end-of-life care. Home-based care providers are increasingly seen as key resources at each point across this continuum and are responding with new programs and services, including population health management strategies (PHM). PHM is the current hot topic among health care providers at all levels. Successful PHM strategies rely on the availability of data and efficient delivery of services. Expertise in new population health management approaches are critical to the evolution of home-based care specifically and health care delivery broadly.

The ACA further drives these PHM approaches through new payment models rewarding value and outcomes. Payment model evolution as envisioned by the ACA is a critical tool to drive quality improvement, accountability and coordination. Home-based care providers are moving toward value-based and accountable payment models and away from traditional fee-for-service. Importantly, home-based care providers see significant growth in non-Medicare populations and are actively supporting new Medicaid populations and expanding commercially insured populations. In short, home-based care leaders are beginning to leverage long-standing clinical expertise for stronger provider partnerships, engagement in innovative new models and appropriate reimbursement.

VNAA seeks to identify nonprofit agencies leading this current evolution and to demonstrate the value of home-based care to allied stakeholders such as policymakers, payers and providers. As such, VNAA solicited innovative business and clinical models to highlight leadership among nonprofit home-based care agencies and to provide resources to support the continued evolution of home-based care providers. The resulting case studies align in four key areas: emerging payer-provider partnerships; innovative business intelligence acquisition; expanded telehealth integration; and improvement of clinical approaches.
- Payer Partnerships: The alignment of provider expertise with payer support for high quality care and outcomes

- Business Intelligence: The ability to collect, analyze and connect quality and financial data to support organizational decision making.

- Telehealth Integration: the integration of telehealth applications to expand access and to collect, analyze and connect patient data to support clinical decision making.

- Quality and Performance Improvement: The design and implementation of new care delivery models and clinical approaches to improving outcomes and health and lower costs for home-based patients.

The case studies in these four areas represent leading and relevant strategies scalable in many home-based care agencies and communities across the country. This second edition of VNAA's Case Study Compendium highlights 13 VNAA member agencies who are successfully navigating new care delivery and payment models, advancing new program development, engaging new partners and enhancing and improving patient outcomes.

What’s next? Version 4.0 is yet unclear but likely to move toward, if not achieve, the goal of coordinated, patient-centered, community-level, team-based care. VNAA will continue to support nonprofit home-based care providers through the development of educational tools and resources, quality improvement guides and programs and financial model insights.

ABOUT VNAA
The Visiting Nurse Associations of America (VNAA) exclusively represents nonprofit providers of home-based care. VNAA members include free standing and hospital-based home health and hospice agencies as well as nonprofit health systems and provider organizations. VNAA members are a vital link between patients, physicians and acute care settings and increasingly provide a full spectrum of health care services ranging from wellness and prevention, care coordination and management, post-acute care services, palliative and end-of-life care. The community-based providers serve all patients without regard to ability to pay or severity of illness. VNAA members are critical component in care models that improve quality and health outcomes while reducing costs.

This Case Study Compendium supports VNAA's vision of supporting, promoting and advancing nonprofit providers of community-based healthcare including home health, advanced illness, palliative and end-of-life care and health promotion services to ensure quality care in their communities. We hope you find this resource useful and we welcome nonprofit providers to submit additional case studies for future publication.

Tracey Moorhead
President and CEO
February 2015
SECTION ONE: PAYER PARTNERSHIPS

THE ALIGNMENT OF PROVIDER EXPERTISE WITH PAYER SUPPORT FOR HIGH QUALITY CARE AND OUTCOMES.
CASE STUDY ONE:
MEDICAID MANAGED CARE LEADS TO LOWER HOSPITALIZATION RATES

AGENCY: Visiting Nurse Association of Central New York | Syracuse, NY

LEAD STAFF: Andrea Lazarek-LaQuay, MS, RN

AGENCY CEO: Mary Kate Rolf, MBA, FACHE

WEBSITE: www.477home.org

AGENCY DESCRIPTION
Visiting Nurse Association of Central New York, Inc. (VNA) was founded in 1890 with the mission of bringing professional health care to the home and teaching families how to care for their loved ones. Today, the VNA continues this historic legacy by delivering an unprecedented level of care specifically designed to meet the needs of the patients. The focused approach of the VNA improves the quality of each patient’s life and helps each individual achieve maximum independence. VNA Homecare was originally envisioned as a way of bringing all the programs and services provided by Visiting Nurse Association of Central New York, Inc., CCH Home Care & Palliative Services, Inc. and Independent Health Care Services, Inc. all together under one umbrella. Since its inception, the system continues to embrace every opportunity to better meet the changing medical and non-medical needs of those throughout the region. Most recently, VNA Homecare launched VNA Homecare Options, LLC, a Managed Long Term Care (MLTC) Medicaid plan for those eligible for a nursing home level of care, added Home Aides of Central New York, Inc. to their system and began operating an Adult Day Program—all of which have been designed to enhance their range of offerings and develop a healthcare system that is unique and progressive.

FUNDING
New York State Department of Health, Managed Care Division.

POPULATION IMPACTED
Medicaid and Medicaid eligible beneficiaries with long term care needs living in any of the 11 counties VNA is currently authorized to operate. VNA serves Onondaga, Cayuga, Chenango, Cortland, Jefferson, Madison, Oneida, Oswego and Tompkins, all of which contain varying geographic densities.

STRATEGIC PARTNERS
The VNA is working with two Independent Practice Associations (IPAs) in the delivery of Care Management Services for members in counties serviced. The IPAs provide subcontracted care management services following the VNA’s model of care.

PROJECT DESCRIPTION
Care Managers manage care across settings and over time to ensure the correct services are provided at the proper time to enable patients to live in the most independent setting as possible. Every patient is provided an MLTC care plan. Each MLTC plan is individualized based on the care needed by each patient. The Care Managers work closely with the patient’s primary care provider (PCP) to coordinate everything the patient needs to stay safe at home by used a wide array of specialty services in their network. This care plan is designed to accelerate recovery and maintain independence. This
program includes a strong focus on prevention and wellness promotion to patients. The focus is on proper utilization of services to maximize the member’s potential of self-care and independence. Strategies are implemented to empower members and families to take an active role in their care.

RESULTS
Overall preventive care services increased for members 47.8% from 2013 to 2014. As members enroll with the plan, they have increased access to preventive services, which help patients lead healthier lives. Some specific targeted services included:

- Vision Care: 96 percent increase
- Dental Care: 28 percent increase
- Podiatry Care: 7 percent increase

OUTCOME MEASURES
The VNA's MLTC hospitalization rate is significantly less than that of other MLTCs in the state. This is in large part attributed to the model of care established for VNA patients. The graph below shows the state benchmark line in gray and the blue line represents the number of patients in the program hospitalized at VNA.

BARRIERS TO IMPLEMENTATION
As a new program in some counties the VNA serves, often physician providers do not realize the value of this program or how it operates and are hesitant to join as a network provider or refer patients to the program. VNA has developed educational materials and made presentations to various physician groups and providers in an effort to increase their knowledge about how the services can positively impact their patients’ care and overall health outcomes.
CASE STUDY TWO:
CREATING AND NEGOTIATING BUNDLED PAYMENTS

AGENCY: Hartford HealthCare at Home | Hartford, CT

LEAD STAFF: Richard Nankee, VP, Finance

CEO: Michael Soccio, RN, MS

WEBSITE: www.hartfordhealthcare.org/services/hartford-healthcare-at-home

AGENCY DESCRIPTION
Since 1901, Hartford HealthCare at Home (formerly VNA Health Care) provides home health care to residents of 59 towns in central Connecticut and the greater Waterbury area. The agency helps people live independently in their own homes by offering a full spectrum of home health care ranging from skilled nursing, hospice, rehabilitation and speech therapy to cardiac nursing. At Hartford HealthCare at Home, home care services are designed to encourage independent lifestyles through assistance from visiting nurses, private duty nurses, physical and speech therapists, homemakers, personal care attendants, home health aides, social workers, Meals on Wheels, geriatric care management, home health monitoring. Hartford HealthCare at Home employs over 950 individuals at eight branch offices and has 17,000 total admissions a year.

Hartford HealthCare at Home is part of the Hartford HealthCare network. This integrated health care system includes a tertiary-care teaching hospital, an acute-care community teaching hospital, an acute-care hospital and trauma center, two community hospitals, the state’s most extensive behavioral health services network, a statewide clinical laboratory system, a large primary care physician practice group, a regional home care system, an array of senior care services, and a large physical therapy rehabilitation network.

FUNDING
Funding under a CMS/CMMI Model Three Bundled Payment For Care Improvement Program (BPCI).

POPULATION IMPACTED
Hip and knee replacement patients from the Hartford Health Care network admitted into home care.

STRATEGIC PARTNERS
A key partner in this program is the hospital system, Hartford HealthCare network.

PROJECT DESCRIPTION
In order to combat growing financial losses, Hartford HealthCare at Home identified potential areas in which to offset losses and authorization issues. A potential opportunity for savings is in orthopedic cases, specifically total hip replacements (THR) and total knee replacements (TKR). Based on the 2010 Medicare claims data, Hartford discovered that the state of Connecticut has a much higher discharge to skilled nursing facilities (SNFs) than compared to other states.
Hartford HealthCare at Home sees approximately 1,300 knee and hip admissions annually (there is a 2:1 ratio of knee to hip patients) and was approached by other providers to design an alternative payment model. Hartford HealthCare at Home is also part of the Model Three CMS Bundled Payment. This model is for post-acute care. This bundle includes all services throughout the episode at the beginning of post-acute care services. This includes SNFs, inpatient rehabilitation facilities, long-term care hospitals and home health. Services included in this episode must begin within 30 days of discharge from the inpatient setting and terminate in 30, 60, or 90 days after the initiation of the episode. Research supports that Bundled Payments align incentives for all providers to partner, partnerships can help drive a positive patient experience and can align clinical outcomes across settings.

Taking into account the needs of THR and TKR patients in Connecticut and participation in Bundled Payments, Hartford HealthCare at Home is developing a pilot program within their Health System for patients with THR and TKR. Hartford Health at Home is seeing a much younger population opting for total or partial hip/knee replacement surgery. Technology is changing and improving everyday which reduces service utilization. These orthopedic patients can go from post operation straight to the home without needing any outpatient services. There are many benefits stemming from the faster rate of recovery and less days in acute settings. These include a reduction in the cost of care, better outcomes (including functional score improvement) and patient satisfaction scores. These orthopedic cases utilizing inpatient services are more expensive and provide no better outcomes than home health.

Percentage of Patients Discharged to Skilled Nursing Facilities (SNFs) Compared to Those Discharged to Home Health Agencies and SNFs Combined on a State Level

Source: 2010 Medicare Claims Data
RESULTS
Hartford HealthCare at Home developed a pilot program within the health system. It is a straight-to-home for partial hip or knee replacement in a risk-based contract with a leading orthopedic surgical group. It will be utilized for both straight commercial, managed care and managed Medicare, and accounting for the revenue and margin will be an internal system cost sharing model. The program includes:

- A period of 90 days for any complications received from surgery.
- A dedicated nurse that meets the patient when they arrive home from the hospital.
- The bundled payment will cover the fees and costs of surgery, facility, home health therapy visits and overnight stay in the facility.

OUTCOME MEASURES
Results for this program can be found in the savings. The average payer costs per day:

- Acute inpatient setting: $8,000 a day
- SNF: $460 a day
- Home health visit: $155 a visit
- Outpatient rehabilitation: $80 a visit

Three days as an inpatient, ten days in a SNF, ten home health visits and ten outpatient visits totals to $31,000. In the bundled payment model the patient would have three days in an acute setting, 14 visits in home health and ten visits to an outpatient facility which costs $27,000. This is approximately $4,000 in savings per case.

BARRIERS TO IMPLEMENTATION
A few barriers to successful implementation includes a lack of awareness of individual managed care organization policies for bundled payment programs. For example, Aetna will pay for telemonitoring in Indiana, but does not offer payment in Connecticut. This puts the agency at a disadvantage in creating programs that may already exist.

Data is also an issue. The agency needs to show outcome improvements such as costs savings, low dependency on surgeons and a higher volume of patients to help effect the bell curve. There must be data on the current state and the future state to prove efficiencies.
AGENCY DESCRIPTION
Athens Regional Home Health (ARHH) is a Medicare-certified, Joint Commission deemed-status accredited home health agency serving five counties covering approximately 1200 square miles in Northeast Georgia. The agency began operations in 1998 as the result of a lawsuit appealing the denial of a Certificate of Need application for the underserved vulnerable home health population. Average daily census is 150. An associated home infusion pharmacy, also with an average daily census of 150, covers a 15 county area.

FUNDING
ARHH is owned and operated by Athens Regional Health System, Inc., a regional health system located in Athens, GA ARHH is a not-for-profit home health agency governed under the Hospital Authority of Clarke County. Some services, including contract negotiation assistance and legal services are provided through our System.

POPULATION IMPACTED
Approximately six years ago, a trend was noted with patients electing coverage through a Medicare Advantage (MA) plan. We began contacting these plans to continue to serve these patients on a case-by-case basis through letters of agreement. Eventually, the MA volumes grew to the level that contracts for service were negotiated. The agency has continued the letter of agreement process on a case-by-case basis for plans whose penetration is not high in the region we serve. Also, ARHH leveraged the negotiation power of our associated regional medical center in this process to keep MA reimbursement rates the same as traditional fee-for-service Medicare episodic rates.

STRATEGIC PARTNERS
Athens Regional Medical Center’s Director of Managed Care worked with ARHH Director of Business Operations and Executive Director to assist with some initial contract negotiations.

PROJECT DESCRIPTION
Increase MA payer mix while maintaining profitability by negotiating episodic rates with MA plans, either contractually or through case-by-case letters of agreement, that are based on traditional fee-for-service Medicare reimbursement methodology.

RESULTS
In calendar year 2006, the MA payer mix was 5.2 percent and increased to 14 percent in 2014. Net profit has remained positive for this group.
BARRIERS TO IMPLEMENTATION

Implementation barriers include reaching the right individual with MA plans to begin the contract negotiation process. At contract term, plans have traditionally tried to renegotiate a per-visit reimbursement. Thus far, we have been successful in blocking this change, however we recognize as plan reimbursements decline, more pressure will be placed on us to negotiate a different reimbursement structure. Leveraging our patient satisfaction and quality outcomes will provide us with a strong negotiation position to retain the same reimbursement methodology or move to a risk sharing model.

Another barrier is a lack of interest from very large MA plans.

Most plans require pre-authorization for visits/additional disciplines after the initial admission visit. Admission assessment documentation and the plan of care must be completed and provided to the MA plan within 24 hours of the visit. Additional time is required by office staff to obtain initial and ongoing authorizations and for visiting staff to track visits authorized so they don’t exceed visits or add disciplines without first obtaining authorization.
SECTION TWO: BUSINESS INTELLIGENCE

THE ABILITY TO COLLECT, ANALYZE, AND CONNECT QUALITY AND FINANCIAL DATA TO SUPPORT ORGANIZATIONAL DECISION MAKING.
CASE STUDY FOUR: PREDICTIVE INDEXING: REDUCED TURNOVER ENHANCES HEALTH CARE QUALITY AND PROFITABILITY

AGENCY: Visiting Nurse Association of Northern New Jersey | Morristown, NJ

LEAD STAFF: Lisa Salamone, Executive VP and COO

CEO: Faith Scott, FACHE

WEBSITE: www.vnannj.org

AGENCY DESCRIPTION
The Visiting Nurse Association of Northern New Jersey (VNA) pioneered the concept of home health care in its region in 1898 when the agency’s first nurse set out on a bicycle to assist residents of greater Morris County area. Since that time, the VNA has been at the forefront of addressing major public health concerns and has established itself as one of the state’s leading comprehensive home care providers. In fact, the VNA made more than 144,000 visits last year and achieved patient outcomes and satisfaction levels that were among the best in the state.

FUNDING
Funding was provided by the agency.

POPULATION IMPACTED
The target population for this program is the staff of VNA.

STRATEGIC PARTNERS
Elizabeth Faircloth, Vice President of Augur Inc., a PI Worldwide Member Firm. The VNA embraced the use of the Predictive Index (PI), a scientifically-validated tool that accurately and efficiently reveals key characteristics and traits which are indicators of compatibility with specific workplace roles. In fact, the Predictive Index provided the critical element--the behavior measure--needed to fully execute and realize the benefits of Scott’s Clinical Ladder.

PROJECT DESCRIPTION
In recent years, the VNA has been confronted with challenges common to all health care organizations, including third party reimbursement constraints, uncertainties related to health care reform and a shortage of nurses and other skilled health care professionals. With an annual nurse turnover rate slightly below industry averages at 17 percent, this could be attributed to external factors such as the competitive local employment market which encompasses nearby New York City and the prohibitive cost of living where the VNA is headquartered in New Jersey’s most affluent county. However, the executive leadership of the organization conducted a rigorous review of internal factors contributing to turnover with the goal of finding means for improvement.

That internal review examined how the nursing shortage was impacting retention, succession planning, productivity, profitability and patient satisfaction. It identified that employee behaviors which contributed to the turnover included a lack of motivation and disengaged staff. The review quantified additional operating expenses and waste resulting from high turnover and determined that higher recruitment and training costs, and financial incentives were not solving recruitment gaps.
Several initiatives and solutions were implemented in the aftermath of the organizational review including a proprietary Clinical Ladder designed to more clearly delineate nursing competence levels. These tools established a foundation for stronger recruitment, retention and employee development. However, the turning point was the introduction of the Predictive Index which ultimately allowed the VNA to “connect the dots” and integrate the Clinical Ladder and other missing elements into its hiring practices. Most importantly, the PI assisted the organization with establishing a corporate definition of talent.

To introduce the VNA to PI, Faircloth led a Predictive Index Management Workshop where HR and senior managers completed the assessment themselves and then learned how to interpret and apply the behavioral insights derived from its use. The group was also trained in Performance Requirement Options (PRO), a job analysis tool used to define behavioral requirements for specific roles. In fact, the VNA integrated the PI results of several top performing nurses with PRO results to determine the best job model for that position based upon behavioral characteristics common to all of the successful nurses such as lower levels of dominance and a strong desire to abide by the rules.

Using this data, hiring managers now quickly and accurately compare a candidate’s PI to the job PRO and conduct a fit-gap analysis. “PI prompts all parties involved - the candidate, the hiring manager and senior management - to collectively recognize what a candidate will bring to the table and what training, mentoring and support will be required,” observed Lisa Salamone, EVP & Chief Operating Officer. “We’ve also discovered that when gaps are detected using this process, it does not immediately disqualify a candidate. It creates awareness and gives us the ability to talk openly about potential concerns and challenges.”

The VNA now requires all job applicants for all positions to complete a PI. All interviewers are provided with a copy of each applicant’s PI and a PRO and that information has made it much easier to reach a consensus about each candidate and make joint hiring decisions.

As a result of this success, the PI and the PRO are now being integrated into an array of other HR activities at the VNA:

- Customized PROs are being successfully used to staff some hard-to-fill positions such as nursing roles with the burgeoning private care division which require an ability to work with clients who fund their own care and thus can sometimes be demanding because they are unconstrained by third-party payer and insurance plan standards.
- New hires and employees are being groomed for management positions based upon PI results since those who demonstrate slightly higher levels of dominance are likely to require advancement to management roles to remain engaged in their work.
- New hire orientation is customized based upon PI information that affords VNA team leaders with a greater understanding of their new colleagues’ behaviors. For instance, a leader may amend how he or she communicates or delegates to better align with how an individual learns and functions, thus making the onboarding process much smoother.
- The PI is used to optimize the employee review process. By reducing subjective content, it facilitates more productive discussions and allows managers to more effectively deliver feedback in a non-judgmental manner that employees prefer. Since evaluations are given at the end of a new hire’s introductory period and again annually, managers use the PI to track the fits and gaps between the individual and their role so they can establish a roadmap for coaching and mentoring.

RESULTS
Since the introduction of PI, the VNA has experienced some dramatic improvements:

- Employees are being successfully groomed for promotions into leadership roles and strategic positions are no longer
In a highly competitive nursing market, candidates under consideration by the VNA are impressed with its dynamic hiring process and excited about the prospect of working there.

PI has been the catalyst for new initiatives including a program for recent university graduates. The PI has been instrumental in helping the VNA assess job fit/performance for a new generation of workers who have not yet acquired robust work experience. It also supports the onboarding and career planning process for this new generation by offering insights into how their motivation, communication patterns and behaviors differ from older, more experienced colleagues.

The VNA is studying how PI can help to sustain its exceptional client satisfaction rates and patient outcomes. Client feedback is being used to identify staff behaviors, such as extraversion and patience, that enhance staff/client interactions and that data should help managers bridge potential gaps in the delivery of outstanding patient service.

PI has allowed VNA talent to align with positive attitude in the workplace. Also, the PI has created healthy competition for upward mobility among staff. There is a clear demonstration of higher capacity of each staff.

OUTCOME MEASURES

- Clinical turnover rates are now substantially below national averages.
- Turnover dropped by more than 50 percent from slightly more than 17 percent in Q1 2010 to less than 8 percent in Q1 2011 and has maintained at a consistently lower rate through 2012.
- A record low turnover rate of 5.3 percent was achieved in Q3 2011 while the national average for the same period was 19.5 percent (Hospital and Healthcare Compensation Service 2010-2011).
- Vacancy rates fell from an annual high of 11 percent in 2010 to 6 percent by the end of 2012.
- The VNA is realizing cost savings related to reduced recruitment, training and retention incentives. Staff education costs alone have dropped by 30 percent per new hire.
- 100 percent of positions are filled for the first time in the organization’s history and its talent pool is overflowing.

BARRIERS TO IMPLEMENTATION

The VNA has a long, distinguished tradition of caring for the homebound that spans 114 years. The key to its success has been an unwavering commitment to excellence and a willingness to embrace new ideas and technologies to achieve that goal. The recent integration of PI into the organization’s business model is consistent with that philosophy and is playing an important role in ensuring that the home care provider is well-positioned for a second century of service.

AGENCY DESCRIPTION

VNA Care Network Foundation and Subsidiaries is a nonprofit provider of home health care, palliative care, hospice care, and wellness services in Eastern and Central Massachusetts. The organization includes the Visiting Nurse Association.
SECTION THREE: TELEHEALTH INTEGRATION

THE INTEGRATION OF TELEHEALTH APPLICATIONS TO COLLECT, ANALYZE AND CONNECT PATIENT DATA TO SUPPORT CLINICAL DECISION MAKING.
CASE STUDY FIVE: TELEHEALTH PROGRAM REDUCES HOSPITALIZATIONS FOR CARDIAC AND COPD PATIENTS

AGENCY: VNA Care Network Foundation and Subsidiaries | Worcester and Charlestown, MA

LEAD STAFF: Jeanne Callahan-Lydon, RN, BSN, JD, Senior Vice President of Clinical Services, Quality, and Risk Management

CEO: Mary Ann O’Connor, RN, BSN, MBA

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of Boston, VNA Care Network, and VNA Hospice Care, which together served over 40,000 patients in more than 200 communities in 2013. Private duty care is provided by Home Staff, a joint partnership with Fallon Health. VNA Care Network Foundation is a member of Atrius Health, a nonprofit alliance that is developing better ways to coordinate care across multiple settings and finding new and improved ways to coordinate home health services with ambulatory care.

FUNDING
The service is funded nearly entirely by VNA Care Network Foundation and Subsidiaries. Select commercial insurance providers cover telehealth services, and some patients elect to pay privately.

POPULATION IMPACTED
The Telehealth Program has improved the quality of life for home health patients with heart failure, COPD, and other cardiac issues living in Eastern and Central Massachusetts.

STRATEGIC PARTNERS
VNA Care Network Foundation and Subsidiaries developed the Telehealth Program. Clinicians from the organization collaborate with patients’ physicians to act quickly on telehealth data that falls outside of predetermined alert levels.

PROJECT DESCRIPTION
VNA Care Network Foundation and Subsidiaries’ Telehealth Program combines in-person home health care visits with remote monitoring. The telehealth equipment is most often used to measure blood pressure, heart rate, oxygen saturation (SpO2), and weight on a daily basis. Results are automatically transmitted over a traditional landline or wirelessly over cellular networks. For VNA Care Network, this information automatically flows into the patients’ electronic health record. For the VNA of Boston, significant clinical information is entered into the medical record when action is needed. VNA staff assesses the data and responds to alerts indicating vital signs and other symptoms are outside the desired range for a particular patient.

RESULTS
VNA Care Network Foundation and Subsidiaries’ Telehealth Program:
- Enables early identification of subtle patient changes which leads to timely changes in the plan of care and medication(s).
- Reduces unnecessary hospitalizations and emergency room visits.
- Provides daily data of patient's health status and enhances the ability to identify trends.
- Encourages self-care management and adherence to the prescribed care plan.
- Improves patient's ability to stay independent at home.
- Provides patients with peace of mind because their health status is being monitored every day.

**OUTCOME MEASURES**

VNA Care Network achieved close to a zero re-hospitalization rate for the first 30 days after discharge from the hospital for Atrius Health medical group patients on the Telehealth Program during 2013.

VNA of Boston's outcome data show a significantly lower re-hospitalization rate for heart failure patients on the Telehealth Program. Nationally, the 30-day re-hospitalization rate was 23 percent for heart failure patients while VNA of Boston's heart failure patients experienced a 10 percent rate for all reasons and 4 percent rate for heart failure. VNA of Boston's cardiac patients on telehealth reported higher levels of improvement in pain, dyspnea, bathing, ambulation, and management of oral medications compared to cardiac patients nationally, whether on telehealth or not, according to data from OCS from July 1, 2013 to April 30, 2014.

**BARRIERS TO IMPLEMENTATION**

The primary barrier to implementation and success of a remote monitoring program is the lack of reimbursement from insurers for the service despite the potential to substantially reduce overall health care costs by reducing re-hospitalization rates for high-risk patients. Patients are unable to remain on telehealth after discharge from skilled services unless they can pay privately, and may not have the resources to purchase their own blood pressure cuff, scale, and oximeter to continue self-monitoring.

Organizations face additional barriers to implementation of a similar program. There are hundreds of options for remote monitoring technology and insufficient data to adequately guide clinical decisions about which technologies should be adopted. While most patients and families are supportive of telehealth's use, some resist participating in self-care activities.

Despite the possible barriers to implementation, VNA Care Network Foundation and Subsidiaries’ experiences and outcomes show the positive impact the technology combined with monitoring and home health care can have on the lives of patients at higher risk for re-hospitalization.
CASE STUDY SIX: 
CENTURA HEALTH AT HOME INTEGRATED TELEHEALTH PROGRAM

AGENCY: Centura Health at Home | Denver, Colorado

LEAD STAFF: Erin Denholm, MSN, RN, RWJENF

CEO: Erin Denholm, MSN, RN, RWJENF

WEBSITE: www.centurahealthathome.org/CHH/Home

AGENCY DESCRIPTION
Centura Health at Home (CHAH), headquartered in Denver, CO, is the home care unit of Centura Health. Centura Health at Home provides Home Care, Home Hospice, Residential Hospice, Palliative Care, Telehealth, Independent Living, Assisted Living, Nursing Home Care, Alzheimer Care, Respite Care, Adult Day care, Pastoral Counseling and Bereavement Services to patients and residents in Denver, Colorado Springs, Pueblo, Canon City, Durango, Pagosa Springs and Summit County.

Founded in 1997, Centura Health at Home provides care to over 20,000 patients each year and over $500,000 of care is uncompensated or charity care. Centura Health at Home has over 1,300 employees. CHAH is also the first home health agency in Colorado to have implemented a telehealth system.

Centura Health is a nonprofit, faith-based integrated health care system in Colorado and consists of 13 hospitals, four freestanding emergency departments, seven senior living communities and home health and hospice.

FUNDING
This year long project was funded by the Center for Technology and Aging as one of the five grant projects in the Remote Patient Monitoring Diffusion Grants program. The Center for Technology and Aging was established through the generous support of The SCAN Foundation to promote the independence and well-being of older adults through the broader diffusion of beneficial technologies. The Center receives funding from multiple sources, including federal and state grants and contracts, corporate donations and grants, and private philanthropy.

POPULATION IMPACTED
For this program CHAH selected 200 patients fitting the following criteria:
• Having a chronic disease (congestive heart failure, chronic obstructive pulmonary disorder, hypertension or diabetes).
• At risk for falls.
• Aged 80 or older.
• Two or more hospitalizations in the past six months and or two or more emergency room visits in the past six months.
• Being on five or more medications.
• A history of nonadherence to medications.

Patients were enrolled at two hospitals. The average age of participants was 76, living in his or her home, managing comorbid conditions and recently had a hospital visit relation to an exacerbated chronic condition.

STRATEGIC PARTNERS
The Centura Health system was a strategic partner in this program.
PROJECT DESCRIPTION

CHAH has seen success with its telehealth program and though that traditional programming, has reduced the hospitalization rate of patients in the project to six percent. Building upon this, CHAH created a one-year long program to further reduce hospitalization rates and increase quality of life scores for older adults.

Participants were split into two groups, the first used remote patient monitoring (RPM) and had access to a 24 hour call center. This group was given a base station display that collects information as well as additional devices such as blood pressure cuff, pulse oximeter, thermometer and scale. Patients are given their equipment within 48 hours of discharge. Once in place, telemedicine nurses monitor the patient data and call the patient with any significant changes. The patient is also encouraged to contact the call center with questions.

The second group had a clinical call center nurse set up weekly calls over a three week time frame to review the following:

- Medication lists and management
- Compare medications to discharge orders
- Educate patients using the teach-back method to ensure their comprehension

This program prepares patients for eventual discharge by teaching them how to independently monitor health indicators and how to identify red flags for follow up with a clinician.

RESULTS

The specific goals of the program were to enroll at least 200 patients and decrease the 30-day admission rates for the following conditions: congestive heart failure, chronic obstructive pulmonary disorder and diabetes by two percentage points. In addition, they sought to increase quality of life for their patients.

Twenty-five patients used telephone telehealth, while most others used remote patient monitoring (RPM).

OUTCOME MEASURES

Results showed that rehospitalizations for patients with congestive heart failure, COPD and diabetes decreased by 62 percent for a rehospitalization rate of 6.3 percent. This number is significantly lower than the rehospitalization rate for traditional home care at 18 percent. CHAH’s average rehospitalization rate before the program was 19 percent.

Emergency department visits for patients in the program dropped from 283 to just 21 in the year the study was conducted. Quality of life for patients increased as did self-management and patient satisfactions. Patient data indicated positive perceptions about technology and satisfaction with technology. The frequency of nurse visits decreased to a cost savings of between $1,000 to $1,500 per patient.

BARRIERS TO IMPLEMENTATION

This program found that redesigned training for clinicians and staff were necessary to the program’s success. An initial barrier to implementation was training nurses on information technology. Nurses were familiar with telephonic technology but needed training and education on information technology. CHAH learned that staff engagement and buy-in was critical to the success of the program, as well as effective training for communication for nurses. An additional barrier was technology selection itself. CHAH changed vendors to a more cost-effective solution that was only able to monitor patients whose vitals fall outside pre-determined parameters, ensuring immediate attention was given to the proper patients.
AGENCY DESCRIPTION
Christian Care Visiting Nurse Association (VNA) is a full service home health agency a wholly owned subsidiary of the Christiana Care Health System in Delaware. Average daily census is approximately 1,600 and approximate annual revenue is $48 million. The Home Visit program represents physicians and nurse practitioners who do home visits and care for an elderly largely home bound population.

FUNDING
Implementation of this program is funded by the Christiana Care Health System CEO discretionary fund.

POPULATION IMPACTED
VNA is collaborating with Christiana Care Health System’s, Department of Family and Community Medicine to serve patients in the Home Visiting Provider Program. The key populations impacted by this program are the frail elderly in the greater Wilmington, Delaware area. The Home Visiting Program has served over 1,000 patients since June 1, 2012. The two charts below outline the current patient population by zip code and the enrollment and growth of the program since June 2012.

There are approximately 550 active patients in the home visit program, and an estimated 200 of them qualify and receive home health services from VNA, and these services are integrated with the services of the home visit program. VNA has embedded home care nurses as members of the home visit team. They participate in weekly patient case conferences, and are in close communication as the care of each patient is highly customized and coordinated.

Patients were enrolled at two hospitals. The average age of participants was 76, living in his or her home, managing comorbid conditions and recently had a hospital visit relation to an exacerbated chronic condition.
Current Home Visit Population by ZIP Code

<table>
<thead>
<tr>
<th>City</th>
<th>ZIP Code</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear</td>
<td>19701</td>
<td>47</td>
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<tr>
<td>Newark</td>
<td>19702</td>
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<tr>
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<tr>
<td><strong>Total</strong></td>
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</table>

The Home Visiting Program has served 1,004 patients since June 1, 2012.
STRATEGIC PARTNERS
Key strategic partners for this program are the home health agency, the hospital, physicians and other providers. The chart below highlights the referral sources for the program as well as percentages of patients from each referral source.

PROJECT DESCRIPTION
This program takes primary care to homebound, high cost patients directly into their home. The majority of patients have multiple chronic conditions and many cannot leave their homes. Enrollment in this program is completely voluntary and the patient is not required to give up their primary care or other physicians, or any health benefit that they might have.

The purpose of this program is to support patients who choose to age in place or receive care in the home. This program provides timely care to reduce the need for and incidence of ED visits and in-patient hospital stays. This program also provides consistent care at home through the coordination of physician, social work, home health, rehabilitation, phlebotomy, radiology services as well as appropriate ancillary services.
The program is currently in year three, with the program concluding in June 2015. The goal of year one was to enroll up to 200 patients (a required minimum for the program). Another goal of year one was to build up appropriate staffing; worked with VNA to integrate home care and home visit services and worked on the CMS related requirements and various offices tracking processes.

The goal of the program over the past two years is to focus on decreasing the avoidable hospital admission and readmission rate, as well as to reduce frequent ED visits. We are currently actively developing a care management and palliative care program, to “risk stratify” and to address the most frequent users of ED and in-patient services based on their specific conditions and needs.

RESULTS
The results of this program for patients enrolled to date, is a decrease of both in-patient services (10 percent decrease) and ED use (3 percent decrease).

![30-Day Hospital Admissions and ED Visits Before and After HV Admission](chart)

<table>
<thead>
<tr>
<th>Inpt/Obs</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>33%</td>
<td>22%</td>
</tr>
<tr>
<td>Hospital</td>
<td>12%</td>
<td>9%</td>
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</tbody>
</table>

OUTCOME MEASURES
Hospital and ED admissions were initially reduced as indicated in the results graph. Subsequent initial data indicates further reduction of hospitalizations to below 18 percent for 30 day readmissions.

BARRIERS TO IMPLEMENTATION
Our experience is that we lose money on the daily operations of the home visit program, based on the number of home visits we can achieve and the level of reimbursement for these visits. We are monitoring closely our impact on hospital admissions and readmissions, and as we are effective we see that service as an important (both clinically; patient experience wise; and financially) as we look ahead to a population health approach to caring for our community.
SECTION FOUR: QUALITY AND PERFORMANCE IMPROVEMENT

THE DESIGN AND IMPLEMENTATION OF NEW CARE DELIVERY MODELS AND CLINICAL APPROACHES TO IMPROVING OUTCOMES AND HEALTH AND LOWER COSTS FOR HOME-BASED PATIENTS.
CASE STUDY EIGHT: AIM® (ADVANCED ILLNESS MANAGEMENT) TO SUPPORT AND IMPROVE ADVANCED CHRONIC ILLNESS MANAGEMENT

AGENCY DESCRIPTION
Sutter Care at Home (SCAH) is one of the largest not-for-profit home health care and hospice agencies in Northern California. Founded in 1906, SCAH is committed to compassion and excellence in home care, hospice, home medical equipment, home infusion therapy, and respiratory care, serving more than 150,000 patients in 23 counties each year. As an affiliate of Sutter Health, SCAH is leading the transformation of home care to achieve the highest levels of quality, access and affordability.

FUNDING
Currently, payment is either under Medicare home health for those qualifying patients or a CMMI health innovations grant or other Sutter Health grants.

POPULATION IMPACTED
AIM cares for patients with advanced chronic illness, with some of these diagnoses: oncology, Heart Failure, End Stage Neurological Diseases, Chronic Obstructive Pulmonary Disorder and End Stage Renal Disease (ESRD). Sutter Health’s AIM Care Team helps over 7,000 patients in 15 counties of Northern California to better manage their health in the comfort and privacy of their home. The current census is more than 2,100 patients and there were 85,000 patient contacts in the last 12 months. These patients are in their last twelve to eighteen months of life and do not have to qualify or be eligible for hospice at the time of admission to AIM. This is palliative care and curative care provided concurrently.

STRATEGIC PARTNERS
CMMI awarded Sutter Health a three-year, $13 million Health Care Innovation Award to support the expansion of AIM throughout Northern California. SCAH works closely with CMMI to report program results on an ongoing basis.

PROJECT DESCRIPTION
AIM is a nurse-led care management program caring for patients with advanced chronic illness in their last 12 to 18 months of life. Currently 335 staff members are trained in the AIM program.

AIM integrates and navigates the health care system for the patient and their family, while tailoring symptom management and other care and treatment plans to the patient’s personal goals. The program is designed to extend and enhance the relationship patients have with their physician.
All patients receive home visits initially when they are enrolled. During this time the clinical team learns about the patient’s health issues, lifestyle and personal preferences to tailor a care plan that meet’s the patient’s needs. Once in the program, the nurse initiates the Pillars of the Program:

- Patient Engagement in self-management
- Medication Management
- Physician follow up, with communication and coordination
- Advance Care Planning and Goal Setting
- Symptom Management, including the identification of red flags

Physicians are highly satisfied with this program and appreciate the collaboration and teamwork from AIM. SCAH documents monthly summary notes into the physician electronic medical record (EMR) so they are informed and are able to follow the patients’ progress. These notes include person-centered goals and status of advance care planning. The referring physician and/or primary care provider (PCP) are included in the plan of care and are partners with AIM and the patients mutually served by SCAH.

RESULTS
The AIM program sees results in the following key areas:

Improving Health:
- Improve transitions of care
- Improve quality of life of patients with advanced chronic illness
- Provide high patient, caregiver, and physician satisfaction

Improving Care:
- Goals of care and advance care plans w/in 90 days of enrollment
- Increase access for patient /family to comprehensive palliative care

Lowering Cost of Care:
- Medicare and other payer cost savings (aggregate and per enrollee)
- Cost savings in providing care overall

OUTCOME MEASURES
In 2013, after 90 days on AIM program, there was a 59 percent reduction in hospitalizations, a 19 percent reduction in Emergency Department Visits and finally a 67 percent reduction in ICU days.
**BARRIERS TO IMPLEMENTATION**

Barriers to successful implementation include difficulty with EMR integration. Currently AIM charts in two distinct Electronic Medical Records (EMRs); one for home health and another for the physician services. One of the biggest challenges for AIM is integrating this information without creating more work for clinicians. An additional challenge is creating simple communications that allow for better care coordination across the health care continuum.
CASE STUDY NINE: DEVELOPING A PEDIATRIC DIABETES PROGRAM

AGENCY: Visiting Nurse Service of New York | New York, NY

LEAD STAFF: Joann Ahrens, MPA, Manager, Special Programs

INTERIM PRESIDENT AND CEO: Guy Sansone

WEBSITE: www.vnsny.org

AGENCY DESCRIPTION
Founded by the nation’s first-ever public health nurse, the Visiting Nurse Service of New York (VNSNY) is the largest not-for-profit home and community based health care organization in the nation. As a large not-for-profit community-based mission-driven organization with more than 18,000 employees, VNSNY serves approximately 149,400 patients annually. VNSNY clinicians make over 2,425,000 home patient visits per year and see patients ranging from newborns to those over 100 years old. VNSNY sees over 8,000 children annually. The underlying focus of services is to promote family engagement and empower families to better manage their children’s health.

FUNDING
Funding for this program was provided by the Morgan Stanley Foundation.

POPULATION IMPACTED
The program services children with diabetes in the Bronx and Manhattan. It is currently being expanded into Brooklyn.

STRATEGIC PARTNERS
There were no outside partners involved in this program.

PROJECT DESCRIPTION
The project was created to offer a sustainable, short-term, model of care that provides comprehensive home care services from an interdisciplinary team to pediatric patients with Type 1 and Type 2 diabetes. The program’s overall objective is to increase access to diabetes services and promote self-care practices in a vulnerable population. The need of the program was indicated by several factors, including the results of the pilot, the increasing rates of diabetes (both Type 1 and 2), the higher rates of adverse events for specific (e.g. minority) populations, and through conversations with provider partners.

The interdisciplinary team includes: the Registered Nurse (RN), registered dietician/Certified Diabetes Educator (RD/CDE), Social Worker (SW), physician, and community providers (e.g., case workers). This team provides comprehensive services by:

1. Addressing diabetes knowledge gaps
2. Reaching skill building (including parental monitoring)
3. Improving communication with providers
4. Promoting short-term behavior change
RESULTS
An examination of patient records over a one-year period revealed greater access to interdisciplinary care among pediatric patients with diabetes who live within the target regions. These results, combined with an increased need in other regions and the fact that the program was well-received by families, resulted in program expansion to a new region in 2014.

Finally, the program’s impact should be spread throughout home care. Focusing on family dynamics and becoming familiar with what is happening in the home environment and then addressing these through a team approach that includes disciplines in addition to nurses— are key takeaways to be applied to children with other chronic conditions.

OUTCOME MEASURES
An examination of patient records over a one-year period revealed greater access to interdisciplinary care among pediatric patients with diabetes who live within the target regions versus the non-target regions.

Specific results included:

- Higher increase in diabetes admissions: 28 percent year over year increase in Target Regions vs. 20 percent in Non-Target Regions
- Longer Stays: The average length of stay was 41 days in Targets Regions vs. 29 days in non-Target Regions.
- More Visits: Average number of nurse visits was 3.7 in Target Regions vs. 2.7 in Non-Target Regions.
- More Services:
  - The percentage of patients receiving RD/CDE services was 85 percent in Target Regions vs. 3 percent in non-Target Regions
  - The percentage of patients receiving SW services was 30 percent in Target Regions vs. 4 percent in non-Target Regions

BARRIERS TO IMPLEMENTATION
There are a number of barriers to successful implementation. This includes the limited number of patients, not only in the population, but also being referred to the program. There was difficulty in solidifying partnerships with hospitals, physician partners as well as with managed care organizations. There is a lack of data to show impact of the program in terms of reduced hospitalizations and change in clinical indicators. Further, the lack of reimbursement from managed care payors prevents replication of the program without another funding source.
CASE STUDY TEN: BETTER BREATHING

AGENCY: VNA of Chittenden and Grand Isle Counties | Colchester, VT
LEAD STAFF: Terry Paquin, PT, Director, Adult Home Care
CEO: Judy Peterson, RN
WEBSITE: www.vnacares.org

AGENCY DESCRIPTION
The Visiting Nurse Association of Chittenden and Grand Isle Counties (VNA) is a 108-year-old nonprofit home health and hospice agency with a mission to care for individuals and families through health and related services in homes and other community settings. VNA programs provide care to people of all ages, from newborns to people at the end of their lives, with the support of over 625 employees and 530 volunteers. VNA services span a lifetime – Family and Children’s Services, Adult Home Care, Long Term Care, Private Duty and Wellness, and End of Life Care based in the community and also a 13 bed in-patient facility.

FUNDING
The Better Breathing project is reimbursed as skilled care by Medicare, Medicaid and commercial insurers

POPULATION IMPACTED
Eligible patients are those who are eligible for home health services living with acute or chronic pulmonary disease that impairs physical capability and quality of life. These patients are often referred for diagnoses relating to respiratory compromise. They live in the service area of Chittenden and Grand Isle Counties, Vermont, consisting of 22 cities and towns.

STRATEGIC PARTNERS
This program had a number of partners, including:

- Outpatient Pulmonary Rehab program at a local Medical Center. Staff there modeled care and provided education for the VNA physical therapist who was the champion of this project.
- Central Vermont Home Health and Hospice shared their project plan with the VNA to use as a model for program launching.
- Director of Respiratory Therapy, Copley Hospital. Staff there discussed patient education needs to assist VNA tailor materials and program to the needs of patients with respiratory distress and pulmonary compromise.
- American Physical Therapy Association. The VNA utilized the APTA as a resource to develop standards of care and protocols for the program.
- A local physician who identified and referred three patients with pulmonary disease to new Better Breathing rehab service to trial the program.
PROJECT DESCRIPTION
Pulmonary rehab is comprehensive Interdisciplinary patient-centered intervention which includes patient assessment, exercise training, self- management education and psychosocial support. It is primarily for patients with disease that affects functional status such as; COPD, pulmonary fibrosis, lung surgery, congestive heart failure, asthma, and neuromuscular disease. This program is led by physical therapists and promotes optimal pulmonary and cardiovascular quality of life through; exercise training, breathing strategies and postural training, energy conserving techniques, coping strategies, education about their disease, and medication management and instruction in the use of medication delivery devices. The VNA did not add additional physical therapists and the costs to the agency were in resources and allowing for administration time for the lead therapist to develop skills and work with a local outpatient department.

RESULTS
Results for the program includes excellent patient satisfaction and reports of significantly improved quality of life. There was excellent physician response and support for the program. Further, there were improved clinical outcomes for participants who would not typically show improvement.

OUTCOME MEASURES
The records of 40 patients participating in the Better Breathing Program were reviewed: All patients showed “Improvement in Ambulation” except for one that remained the same. All patients showed “Improvement in Dyspnea” except for two, who remained the same and two worsened. The two that worsened were by one point and were in the first twenty patients seen. In the second group of patients all improved in dyspnea as well. In just two full months (from March 2014 to May), the overall improvement in dyspnea score according to SHP has gone from 60 to 70 percent.

BARRIERS TO IMPLEMENTATION
One barrier to successful implementation is that measuring outcomes is currently done manually, so outcomes data is produced at a slower rate. To establish good relationships with potential partners, the VNA launched this program by conducting presentations to various organizations and providers. This process took more time than initially anticipated; however the method was quite successful.
CASE STUDY ELEVEN:
CLAIM – COMPREHENSIVE LONGITUDINAL ADVANCED ILLNESS MANAGEMENT

AGENCY: Penn Home Care and Hospice Services, University of Pennsylvania Health System | Bala Cynwyd, PA

LEAD STAFF: David Casarett MD, MA, Director of Hospice and Palliative Care, Lead Investigator and Professor of Medicine, University of Pennsylvania

CEO: Joan Doyle, RN, MSN, MBA

WEBSITE: www.pennmedicine.org

AGENCY DESCRIPTION
Penn Home Care and Hospice Services consist of Penn Care at Home and Caring Way, both Medicare certified and Joint Commission accredited home health care agencies offering the full range of home care services including skilled nursing, Physical Therapy, Occupational Therapy Speech Therapy, social work services and home health aides. Included in this entity is Wissahickon Hospice, a Medicare certified and Joint Commission accredited hospice agency. Wissahickon Hospice also operates Penn Hospice at Rittenhouse, a 20 bed hospice inpatient unit used for short term symptom management and respite care.

Comprehensive Longitudinal Advanced Illness Management (CLAIM) is housed within the Caring Way palliative home care program of Penn Home Care and Hospice Services. Caring Way services are designed for patients receiving treatment for a life-limiting condition. The Caring Way program supports patients’ medical care by addressing their physical, psychological, emotional and social needs. The goal is to provide the best in specialized palliative care so patients can remain at home, preserve their independence and adapt to lifestyle changes during this challenging time. CLAIM specifically supports Penn patients with a cancer diagnosis by enhancing and increasing services provided by Caring Way.

FUNDING
Funding for this program was provided by a Centers for Medicare and Medicaid Services Innovation Grant.

POPULATION IMPACTED
The CLAIM program serves University of Pennsylvania Health System patients with a primary diagnosis of cancer who qualify for skilled home care in the Philadelphia, PA area (including Montgomery, Delaware, Chester, and Bucks counties).

STRATEGIC PARTNERS
The CLAIM program works strictly with Penn referral sources, physicians, social workers, etc. within the Penn Health system. No outside partners are included. However, Penn Care at home works closely with CMS (Centers for Medicare and Medicaid Services) grantee contacts in terms of project updates, continued funding, and reporting.
PROJECT DESCRIPTION
The overarching goal of CLAIM is to provide a comprehensive set of home care services, layered onto the existing Medicare Skilled Home Care Benefit, for patients with advanced cancer who have substantial palliative care needs but who are not yet ready to enroll in hospice. The three primary aims of CLAIM are to:

1. Help patients avoid unnecessary and undesirable hospitalizations;
2. Better manage pain; and
3. Provide more advance care planning support primarily by increasing the number and quality of goals of care discussions that staff have with patients and their families.

RESULTS
The CLAIM program is currently in its third and final year. Official results are not calculated since the program is still in progress, there is an update on the three aims of the program since the last reporting quarter from the end of June 2014.

Aim 1: A 10 percent increase in the proportion of patients whose pain is managed to a comfortable level:

- The historical control population’s controlled pain plus a 10 percent increase is calculated at 65.6 percent. For five consecutive reporting quarters, Penn Home Care is above this goal, showing that CLAIM patients have better pain management than the historical control group. This is 82 percent of CLAIM patients who have had pain controlled after eight quarters of the CLAIM program.

Aim 2: A 15 percent increase in the documentation of patient goals:

- Data shows over a 60 percent increase in the documentation of patient goals. 95 percent of CLAIM patients showed evidence of goals documentation while on service in our last quarter compared to 58 percent of patients in the control group.

Aim 3: Net cost reduction of $2,787,030 over three years:

- Measurement for this aim focuses on inpatient hospitalization costs derived from University Hospitals Consortium data. The University of Pennsylvania Health System (UPHS) hospitalization costs calculated per patient-day, and are compared with the per patient-day costs of the control group to derive cost-savings estimates. The hospitalization rate (total UPHS hospitalizations/total number of patient days) for this quarter is calculated using our new historical control data set. A larger control data set was necessary to allow for future propensity score matching with our CLAIM population.

- Based on the cumulative health system hospitalizations through the end of the last reporting quarter, Penn Care at Home currently estimates a cost savings per patient day of about $101. This estimate is based on the cost information for hospitalizations that occur within the University of Pennsylvania Health System for both the CLAIM and control group. Currently, there is no figure for estimated net cost reduction. However, with the CLAIM program scheduled to end in June 2015, the projected net cost savings by the end of the three year grant to be $2,787,030.

OUTCOME MEASURES
The hospitalization rate for the CLAIM population is approximately 40 percent lower than the hospitalization rate in the control group.
BARRIERS TO IMPLEMENTATION
In the beginning, Penn Care at Home did experience a number of barriers to implementation of the program. Three initial barriers identified include:

- Delays in initial hiring process – lost several months of ability to use CLAIM funding for visits.
- Under-utilization of chaplain services resulting in decreased spending.
- Slight under-utilization of social work services also resulting in some decreased spending.
CASE STUDY TWELVE:
SALUD PARA TODOS - COMMUNITY BASED WELLNESS PROGRAM

AGENCY: Central Coast Visiting Nurse Association and Hospice | Monterey, CA

LEAD STAFF: Andrea Zoodsma, RN, BSN, PHN, Director of Community Services

CEO: Steven Johnson

WEBSITE: www.ccvna.com

AGENCY DESCRIPTION
Community Services division of Central Coast VNA and Hospice promotes wellness in local communities; Influenza prevention program, International Travel Immunization Clinic, Employee Wellness Program, Contracted nursing services with school districts, county health department, probation department and department of social services. The visibility in the community endorses all VNA and Hospice Services. As a fee-for-service business, we bring the opportunity for financial improvement to the organization.

The nonprofit VNA and Hospice has, since 1951, provided a wide range of home health care and hospice services, making more than 75,000 visits each year in all of Monterey, San Benito, and parts of Santa Clara and Santa Cruz counties. The administration office is located in Ryan Ranch, Monterey, and office locations are in Salinas, Hollister, Monterey and King City. Care is available to all in need, through Medicare, Medi-Cal, Veterans Administration benefits, Worker’s Compensation, private insurance and “sponsored care” for those who cannot afford to pay for their care, within available VNA resources through gifts from the community.

FUNDING
This project was made possible through funding from the Community Foundation for Monterey County.

POPULATION IMPACTED
Over the past two years, registered nurses have worked with Gabilan Hill Townhomes residents in Salinas, CA. This neighborhood of townhomes is owned and managed by Community Housing Improvement Systems and Planning Association (CHISPA) which offers low income housing to primarily Hispanic families in Monterey County.

STRATEGIC PARTNERS
CHISPA Townhome Resident Manager, and three residents identified as Leaders for Health, championed participation and guided our approach to relationship building among families in the Gabilan Hills neighborhood. Local YMCA, Clinca de Salud, Champions for Change, Food 4 Less Grocery Store provided in-service education, grocery store tour, on-site exercise classes, appointments at clinic following biometric screenings.
PROJECT DESCRIPTION
A three-year program to educate residents about preventive health care, early identification of health issues and health maintenance with a short term goal to raise awareness of health risks and link participants to local health services and resources. The long term goals are to encourage behavioral changes and to facilitate a clear understanding of the link between lifestyle choices and chronic health conditions. The objective of the program is to inspire healthy lifestyle behaviors to build a healthy community, one neighborhood at a time. Currently this program is in year three of the three year grant.

RESULTS
Health behavior change takes time, thus the three year project.

- **Year One:** Health Awareness: Establish Rapport, Raise Awareness and conduct biometric screenings
- **Year Two:** Health Behavior Change: Focus groups on health and wellness education as well as activity workshops, disease management support groups and conduct biometric screenings.
- **Year Three:** Maintenance. Leaders for health assume responsibility for program planning and implementation under the mentorship of VNA nurses. This creates leaders for health to carry the program into the future.

OUTCOME MEASURES
Outcomes to date based are on annual biometric screening and health risk appraisal. So far, the program has seen the following improvements: a 44 percent increase in physical activity, a 62 percent decrease in blood pressure, a 31 percent decrease in cholesterol and a 40 percent decrease in blood glucose.

BARRIERS TO IMPLEMENTATION
Engagement in wellness programs is greatest challenge. Incentives, rewards have been used to promote participation. Bilingual, bicultural nurses have been invaluable to the program. Central Coast is seeking funding from other sources in order to take the program into a new neighborhood with the help of the current leaders for health.
AGENCY DESCRIPTION
North Country Home Health & Hospice (NCHHA) is a private non-profit Home Health and Hospice agency providing visiting nurse services, home health care, rehabilitation, home health aide, personal care, homemaker and companion care programs as well as a Hospice Program. NCHHA is located in Littleton, NH which is in the rural North Country, White Mountain area of the state. NCHHA serves 22 towns which are primarily large, geographic areas with small populations. The patient case load shows a 20 percent higher population of chronic care patients than in other parts of the state. The average daily census is 200 patients.

FUNDING
The agency currently contracts with a local Community Health Center and physician practice that is billing for physician services under Medicare Part B. NCHHA has applied for local grant funding to expand program.

POPULATION IMPACTED
The primary population for this program is our chronic care homebound clients who have difficulty accessing physician services. Many of the patients have wound care issues, medication issues, or exacerbation of their chronic disease. Most patients have limited resources to manage their disease. The patient population is in the rural and mountainous North Country of New Hampshire in which travel and access to public transportation is difficult. The patients are receiving some type of home health services either through Medicare, Medicaid, private insurance, or some of our grant programs.

STRATEGIC PARTNERS
Ammonoosuc Community Health Center in Littleton, NH provides the physician collaboration and home visits. This is crucial to the success of this program in managing and improving the chronic care outcomes of our mutual patients. A physician champion has been identified to lead the program and provides the majority of the physician home visits. Littleton Regional Health Care is also a partner in leading the care transition meetings in which we have developed common patient education tools, care management strategies, and identifying “frequent flyers” to the emergency department with whom this program would benefit.
PROJECT DESCRIPTION
The physician home visiting program and chronic care management was developed by NCHHA in collaboration with Ammonoosuc Community Health Center to address the needs of chronic care patients. Through in-home collaboration with the physician and the nurse or therapist, this program provides improved communication among these disciplines with the patient and the patient’s family. The team has developed a coordinated approach to care planning, education, and utilization of tools that are focused on mutually agreed upon outcomes. The physician home visiting program also provides joint case management visits with the nurse or therapist along with the physician. Many of these patients otherwise may not get to see their physician which limits the nurse and physician’s ability to provide a collaborative approach to care. The program supports education and training to both the home health agency clinical team as well as the physician home visiting partners on areas that address best practices in home health and care planning for chronic care patients. The next level of the program that will be implemented through the current grant funding proposal will support this training for the supportive care staff such as home health aides and homemakers. The long term goal of the program is to have all involved in the care management of chronic care patients to be trained with most current strategies and approaches to chronic care management with a focus on team collaboration and patient directed care.

RESULTS
The program began in July of 2013 and to date 63 patient have had interventions through this collaborative approach in which 16 percent would have needed to go to the hospital emergency room if these interventions had not been provided in the home. The agency has seen a reduction in the hospital re-admission rate by 3 percent. Littleton Regional Healthcare has also seen a reduction in their readmission rate while partnering with the agency on this project. The patients included in this collaborative approach have had wound care issues, cardiac disease exacerbation, medication issues and care management issues.

OUTCOME MEASURES
There was a 3 percent reduction in the hospital re-admission rate and also a 1 percent to 2 percent increase in most of the home health compare reportable outcomes.

BARRIERS TO IMPLEMENTATION
The startup for this program was the biggest challenge related to the physician’s buy-in and comfort level in having another physician than themselves provide the home visit for their patients. However, once they saw the benefit of this collaborative approach and the time savings, referrals for the program began to improve. The other barrier is funding. The Medicare Part B funding is only for one hour billable type visits which does not cover many of the care coordination and care planning visits. Using technology like handheld ECG machines has helped, but funding continues to be a barrier to grow and expand the program. Although the savings related to improved patient outcomes and decrease in patient re-hospitalization is beneficial, increase funding through grants and other sources will be needed for future sustainability of the program.