Using CARE COORDINATION to Change the Health Care System and Improve Patient Outcomes
Overview

This paper is intended to introduce our care coordination Services and Software platforms as a cost-effective solution to several key health care challenges including over utilization and episodic care, poorly coordinated care, lack of discharge planning and follow-up care post acute event, and other factors that drive up the cost of health care.

Unlike traditional disease management and case management models, the care coordination approach developed by eQHealth Solutions, eQCare™, centers on and enhances the relationships between patients and their physicians. Instead of a simple information technology or telephonic solution, the centerpiece of our care coordination program is a marriage of high tech and high touch solutions that occur at the community level. This high touch, community based approach ensures that high risk members are being engaged at the right time, in the right place, and about the right concerns; concerns about their healthcare that they have specifically expressed as issues.

eQSuite® allows for a comprehensive view of a participant to be easily accessible to care coordinators, treating physicians, and the participant themselves, to ensure appropriate understanding of the physician prescribed treatment plan, items of concern to the participant, as well as ensuring the participant treatment plan is adherent to national standards of care.

The purpose of this paper is to describe our approach to care coordination that is based on people but supported by technology.
The following provides a brief look at the current health care system, and then demonstrates how care coordination can help. The document then gives a conceptual look at how care coordination could be applied to health care payor sources including Medicaid and private insurers.

Although it is often termed a “system,” the current health care system is more a collection of components divided into independent silos based on the setting. These settings could be hospital-based, physician-focused or community-based where each setting might be self-sufficient. Although each setting can function independently, once a patient leaves the hospital or doctor’s office they no longer have a team working with them; the team works only within its own doors.

Ultimately, patients experience a poorer quality of life, increased out-of-pocket health care expenses and higher mortality. For society, health care expenditures are growing at an unsustainable rate as shown in the chart on the previous page.

As shown in the first point at right, the physician in the hospital has helped make the patient better. He has done his job and then discharges the patient home. But, what is happening to cause 20 percent of these patients, after they are discharged home, to find themselves back in the hospital with the same condition within 30 days?

Answer – In many cases, patients are going home with very limited discharge instructions and little or no follow up. The patient’s regular doctor relies on the hospital staff to make sure the patient understands his/her after-care, while the hospital expects the doctor to instruct his/her patient on what they should be doing. This is a clear example of two components of the health care “system” not being in sync; and the patient getting lost in the shuffle.

The reality is this is a broken system, and there is plenty of proof of what happens within a broken system:

20%
This is the readmission rate for Medicare patients returning to the hospital within 30 days of their initial hospitalization. Can “getting it right” 80 percent of the time truly be termed a success? Care Transitions programs are beginning to make great strides in this area, but much work still needs to be done to define the most effective care transitions programs.

Less Technology
Hospitals and doctors invest 50 percent less a year in information technology than retail establishments or the travel industry. Also, it has been said that “a Federal Express deliveryman has more technology on his belt than most physicians have in their offices.”

7,000
The Institute of Medicine estimates this many people will die each year from medication errors alone – about 16 percent more deaths than the number attributable to work-related injuries. Again, we are taking steps to improve this number with the introduction of Medication Reconciliations, but the reality is this process is not always being provided on every interaction with a patient or in a timely manner post discharge.
**Over Utilization**

As Dr. Gawande wrote in *The Cost Conundrum*, an examination of health care in Texas, overutilization of services is the primary driver behind today’s rising cost of health care.

His findings are backed up by researchers at Dartmouth who surveyed 800 primary care physicians from high-cost, low-cost and mid-cost cities.

**Result** – The researchers found that physicians who followed best practices (where established by science) had little differences in their treatment decisions. But, when there were no established best practices, there was wide variation in the number of tests ordered and procedures performed. The result was increased spending. Research has also shown that even when best practices are known, their adoption rate by physicians remains low.

The reality is, left unchecked, rising health care costs are unsustainable.

Today, health care expenditures account for about 18 percent of national spending. Spending trends indicate this will increase to 25 percent in the next 12 to 13 years.

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**The Challenge to Payors**

A reality for private insurers, self-funded groups and Medicaid agencies is they are in the position of having to pay for the inefficiencies of fragmented care that add cost and overutilization to the already “broken” system. The focus of healthcare effectiveness is no longer on simply providing care, but now providing quality care is becoming the benchmark reimbursement model.

In most instances, the strongest tactic a private payor can use to attempt to lower or keep costs in check is through rate negotiations with providers or pay for performance. By fiat, Medicaid agencies can simply reduce provider payments. Of course, this takes political will and legislative support that is often difficult to garner.

Ideally, pay for performance should create incentives for providers to adopt best practices and make process changes that address costs. This has not always occurred, as witnessed by the continued growth of health care spending.

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**The Care Coordination Solution**

A key in addressing this cost challenge is the eQCare™ care coordination model. This is a “high touch” model of care that makes the patient the central focus of each component of the health care network. As its name states, care coordination identifies all of the providers involved in the care of a patient, reaches out to each one and then includes them in all aspects of care for that patient.

eQHealth’s care coordination model (shown at left) is a holistic, high-touch and individualized assessment-based model that integrates health care and social-support services.

Under the direction of the primary care physician, an eQHealth Care Coordinator manages and monitors the needs of the patient population, both clinical and psychosocial, and the individualized participant goals and preferences based on the physician’s treatment plan.

![The patient is the focus of the eQHealth Care Coordination system, surrounding her with all the necessary supports and community services.](image)
Care coordination is not a radical change to the current health care system. Instead, our program is designed to build on the strengths of the current system while more effectively utilizing its existing resources. As an integrated team working together on behalf of the patient, each member of the care coordination team brings specialized skills and knowledge to enhance the overall health outcome. With the common goal of care coordination being improved patient outcomes, the integrated health care team becomes a true “system,” working to keep a patient well. When chronic conditions are identified, the system is able to address them better, faster and cheaper. With the collaboration of all participants, this concept is viable and operational. Shown below are the key members of the care coordination team:

**Primary Care Physician**

Although the patient’s primary care physician maintains his/her independent status, they serve as the de facto leader of the care coordination team, making all treatment and follow up decisions. It is the primary care physician’s treatment plan which guides care coordination activities.

**Medical Director**

Interacting with both the primary care physician and the Care Coordinator (below), the medical director is charged with creating meaningful partnerships for effective provider collaboration. This ensures all of the unique needs of a particular group of patients are being addressed appropriately. The medical director also provides clinical support to the care coordination staff, including development of operational policies and procedures leading the clinical quality team, assisting with the development and management of clinical programs, staff oversight and the identification and initiation of quality improvement projects. Medical Directors are also skilled in initiating meaningful conversation with network physician providers related to the quality of care and pay for performance indicators.

**Care Coordinators**

Care Coordinators are advocates, patient champions, health coaches and mentors. They help patients navigate the many parts of the health care network and develop appropriate self-care skills.

Care Coordinators actively work to create sustainable, meaningful behavior change within the population they are managing. They are also a resource to assist the participants in navigating the complex healthcare system and ensuring they have access to all the appropriate resources needed to actively participate in their self care.
The Care Coordinator

Working directly with both the primary care physician and the patient, the Care Coordinator is at the center of our care coordination model. The Care Coordinator is the day-to-day facilitator of an interdisciplinary team that assists the patient in navigating the health care system, sorting through medical data and assisting with psycho-social issues contributing to poor health outcomes. Ultimately, better results and better health outcomes save money for the duration of one member’s cycle of care.

A component of our care coordination model is a high touch, face-to-face approach. Although more costly in the beginning, this approach gets results because it improves rapport between providers and their patients and because the care coordinator can develop an accepting, trusting and collaborative relationship with the patient in a relatively short period of time. In addition to establishing rapport more quickly and easily, this model has been extremely effective in providing sustained engagement, greater than 6 months, with enrollment rates as high as 98% with participants who were engaged using a face-to-face approach.

Face-to-face interactions allow Care Coordinators to observe the patients during discussions to better gauge their understanding of any information being discussed. When making a home visit, the Care Coordinator can observe the patient’s physical surroundings and make recommendations about environmental and accessibility issues, social needs and other factors that influence the patient’s ability to live healthy and independently.

In a 2009 retrospective review of several studies, Sochalski et al. concluded “multidisciplinary provider teams with in-person communication lead to fewer hospital readmissions,” thus validating this high touch report. There are several other studies showing the benefits of care coordination and the face to face model and the creation of a 1:4-1:9 ROI (Return on Investment).

The Care Coordinator serves as a coach, mentor and catalyst to helping the patient make sustainable behavioral changes that improve their quality of life. The Care Coordinator can also manage and monitor a group of patients within a community; ensuring that each one receives, and benefits from, the full array of services that have been prescribed by the primary care physician.

The primary care physician still leads the patient’s clinical plan of care while the Care Coordinator collaborates to ensure the plan of care is being appropriately delivered. Other interdisciplinary team members include behavioral health specialists, allied health workers, pharmacists, community organizations, etc.

The Care Coordinator is supported by our sophisticated rules engine software program that, because it is web-based, allows her/him to effectively manage their patients from any location. By identifying all providers involved in the care of a patient, the Care Coordinator can create a unique patient care team based on their identified needs.

A Real Life Example

For an elderly patient who is returning home from the hospital, the Care Coordinator will:

- Talk to family or friends and make arrangements that someone will be home to meet the patient.
- Review the discharge plan (assist with scheduling future appointment, medication reconciliation, educating patients and their caregivers on each component of the discharge plan).
- Assess the patient’s psycho-social issues and home environment for any indicators that may be impacting their health and coordinating the appropriate care to resolve identified barriers.
- Coordinate subsequent follow up visits with the primary care provider and others.
- Identify all physicians involved in the care of the patient and provide ongoing communication related to the person’s current health status.
eQSuite®, our broad IT software platform that targets individual participant management and healthcare population management, is the technology that supports the care coordination team. This solution is a highly agile, integrated and interactive software solution that includes the elements shown below.

Developed by our team of clinicians and information technologists, this system was conceptualized around the care coordination process. System users do not have to adapt their process to accommodate a “cookie cutter” software “box.” Rather, the system has the flexibility to adapt and meet the service platform of the end user. eQSuite® includes a Care Coordinator portal, provider portal, and patient portal to allow all participants of the healthcare team to view the current care coordination plan of care and provide input on interventions being delivered by the interdisciplinary team through secure messaging. These portals ensure the primary care physician can direct care, has immediate access to the information entered by the Care Coordinator, evidence-based practice strategies, health information and teaching tools, and access to their personal quality performance outcomes.

In addition, the eQHealth system has several other unique care coordination features:

**Physician Profile:** The system provides an individual physician profile in terms of quality, utilization, and financial indicators pharmacy, inpatient and emergency department costs and utilization when compared to his peers. This feature allows for a meaningful discussion between the attending physician and medical director, and identifies opportunities to improve the quality, utilization and cost patterns.

**Individualized Plan of Care:** Allows for a Care Coordinator to quickly and accurately develop an evidence based Plan of Care to be quickly and accurately developed directly from the physician’s treatment plan and Health Risk Assessments. Individual participant’s answers to assessment questions.

**Provider Channeling:** With a click of a mouse, the attending physician, or Care Coordinator or participant can direct a patient to the nearest locate network specialist, facilities, or other medical professional service vendors, and community resources, supplying turn-by-turn directions and contact numbers.

**Clinical Integration Framework:** The system fully integrates with multiple EMR vendors, lab vendors, national practice guidelines, Milliman Care guidelines, patient education resources and other critical information.

**Data Modeling Tool:** Allows for the identification and stratification of participants such that resources are allocated to the appropriate patients.

**Business Intelligence Framework:** Allows for ad-hoc analysis of data on multiple dimensions looking at cost and quality reporting, standard quality reporting, such as HEDIS and PQRS. This tool literally puts the data at your fingertips to formulate any report you wish to view.

**Multiple Programs:** Provision of multiple, evidence based programs that are designed around national standards of care and vetted by external content experts. Care coordination is especially applicable to many chronic health conditions including Heart Failure, Asthma, Diabetes, COPD, Hypertension, Coronary Heart Disease, Obesity, Chronic Kidney Disease and Oncology.

In addition to the key interactions between the Care Coordinator and the patient and between the Care Coordinator and the many providers, eQHealth’s care coordination includes a community component.

Within the community, eQHealth will identify and work with employers who have a large number of employees who have similar insurers. We can also do this on behalf of Medicaid or Medicare. From these groups, we will identify patients with designated health conditions and develop community based partnerships and interventions to support the patients and their individualized plan of care.

For example, it may be discovered there is a large segment of employees who suffer with asthma, bronchitis and COPD who are also smokers. In this case, our Care Coordinator might propose a smoking cessation component that is developed by eQHealth and our community partners.

If there are a high number of non-adherent patients with diabetes and with poor eating habits, the Care Coordinator could include a community-based nutritional counseling component to the traditional A1c testing and eye exams. For this, we will draw on our extensive experience related to community based diabetes interventions.
The Benefits of Care Coordination
The benefits of care coordination extend not only to patients, but also to physicians, payors and all the components of what can now become a true health care system.

**Patient Benefits**
- Face-to-face interactions with Care Coordinator create meaningful relationships to foster sustained behavior change.
- Care coordination essentially establishes a medical home for patients.
- Patients learn self-care measures and become better equipped to maintain control of their chronic diseases on a day-to-day basis.
- Having more information results in a better understanding of the many other community resources that are available.
- Direct patients to the right care at the right time.
- Prevents unnecessary emergency department visits and hospitalizations, and decreases the number of missed days at work related to a chronic condition.

**Physician Benefits**
- Access to care coordination resources.
- The assurance that patients are receiving the chronic condition education required for them to maintain a healthy lifestyle.
- The ability to focus on patients with more acute needs during office hours.
- The knowledge that all aspects of the patient’s health are being met; physical health, social issues and psychosocial barriers that can contribute to poor health.
- An enhanced ability to direct the patient’s care and review interactions with a Care Coordinator through the provider portal.
- Provider portal gives access to national guidelines and support tools.

**Payor Benefits**
- Seen by physicians as an innovator due to the extra resources provided to them by the Care Coordinator and care coordination system.
- Care Coordinators ensure that the right services are being performed at the right time and in the right place.
- Care Coordinators are working to educate patients and prevent the costly complications that can be linked with chronic disease conditions.
- Care coordination addresses over utilization.
- A significant return on investment in relation to health care dollars and work productivity can be attained.
- Care Coordinators are working with individual physicians and others to implement quality improvement initiatives (generic drugs, evidence–based clinical guidelines, etc.) This creates decreased variation in practice patterns.
**Financial Implications**

Care coordination can result in a change to the current health care system that will result in continued high quality care, but in a manner that is affordable and sustainable. Specific examples include:

**Reduce System Costs**

System costs are reduced by decreasing the need for repeat testing, readmissions and treatment plan modifications because all appropriate disciplines are involved in the process concurrently.

Example: The average hospital room cost $4,450 a day in 2009. Research has demonstrated that a Care Transition element of care coordination can reduce subsequent re-hospitalization within 30 days of discharge. A reduction of a single hospital readmission can save as much as $22,596 based on the average length of stay being five days for the readmission.

Naylor et al. (2004) also noted 34% fewer re-hospitalizations per patient, a lower proportion of re-hospitalization (45% versus 55%), and a 39% lower average total costs ($7,636 versus $12,481) when an integrated, care coordination approach to health care was used.

**Improved Quality**

Smarter, integrated decisions improve the quality of care. Patients are more satisfied with the care they receive from their individual providers and the system as a whole.

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**A True Story**

When diabetes patient Nancy Wesson* was hospitalized last year with pneumonia, it was the second such hospitalization for her in less than a year. Recognizing that she was likely to have several more re-hospitalizations if nothing changed, she was referred by her hospital to the eQHealth Care Transitions program.

Before going home, a Care Coordinator from eQHealth was assigned to work directly with Ms. Wesson. There were several face-to-face meetings that occurred that helped prepare her to recover, return home and not face a return trip back to the hospital.

On her return home from the hospital the Care Coordinator went to visit Ms. Wesson. While reviewing her medications and what they were for, the Care Coordinator discovered a drawer full of medications, many of them the same medications in different dosages. When questioned about why Ms. Wesson had so many different bottles of the same medication, the patient pointed out “I didn’t realize they were different.” The Care Coordinator worked directly with Ms. Wesson’s PCP to determine what the appropriate medications were for her. She then worked with Ms. Wesson on removing all other medication bottles and establishing a pill box that her daughter was going to assist her with filling weekly.

Through this intervention, the Care Coordinator prevented potential readmissions through the misuse of medications. The Care Coordinator, Ms. Wesson and Ms. Wesson’s daughter had long discussions about her medications, what they were used for, proper dosing and why taking proper dosages were critical to Ms. Wesson’s continued good health.

They further discussed the importance of making a post-hospitalization follow-up appointment with her primary care physician, as well as actually scheduling the visit.

By working closely with Ms. Wesson before and after her hospitalization, the Care Coordinator helped her return home successfully and get on with her life. Ms. Wesson has not had a reoccurrence of the illness that first landed her in the hospital nor any other issues, and she is doing household chores, working in her garden and other daily activities.

*Fictitious name

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A Case Study

The Care Transition program that eQHealth put in place in Baton Rouge in 2009 has proven to be effective in helping local hospitals reduce avoidable readmissions. The intervention, a component of care coordination, includes effective discharge planning and the use of a transitions coach (a smaller scale care coordinator).

Problem
Preventable re-hospitalizations occur in Louisiana at a rate that exceeds the national average. For Medicare beneficiaries, the national rate is 17.6 percent. In Louisiana, the rate is 19.05 percent. The rate of preventable re-hospitalization is a health statistic recognized by many authorities as an indicator of poor quality care and higher costs. For example, the United Health Foundation's report, America's Health Rankings, which only includes a few, select measures, uses this as a statistic when grading a state's overall health.

Solution
In 2008, on behalf of CMS, eQHealth began a program to address this problem called Care Transitions. The goal of the program is to design and initiate interventions to keep people from returning to the hospital within 30 days of discharge.

Result
One of the interventions, a face-to-face patient coaching program, was started in five hospitals in the Baton Rouge area, working with patients with chronic conditions who are at the greatest risk for re-hospitalization.

After admission, a health coach works with each patient as they move between health care practitioners or settings. The coach teaches patients the importance of their medications, what warning signs to watch out for, what to do if a problem arises, who to call, when to schedule a visit with their primary care provider and other basic health tips. Ultimately, the coach simply empowers the patient to better navigate the health care system after discharge.

Metric
As of May 1, 2010, 239 patients have been seen by an eQHealth Solutions’ coach. Of these, only 17 patients have been re-admitted within the 30-day period. For this group of patients, this equals a readmission rate of only seven percent, an improvement of more than 60 percent.

SUMMARY

We are at a pivotal point in the transformation of health care. Now is the time to act collaboratively with all segments of compartmentalized health care to create an effective health care system. This new system will have a shared, common goal of helping patients obtain optimal health.

The best way to do this is through the establishment of care coordination programs that are interactive across the health care spectrum. Through this collaboration and interaction, health care can be remade into a wholly integrated and more efficient “system.” In this new model, health care providers work together (even when they are in different settings) for the common goal of improved health care.

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About eQHealth

eQHealth Solutions, founded in 1986 and headquartered in Baton Rouge, Louisiana, is a non-profit healthcare IT solutions and medical management services company that touches millions of lives annually. Our high-tech and high-touch models include innovative IT solutions and in-person clinical services across multiple states that focus on high quality outcomes and optimization of provider and payer networks. We also perform utilization review, wellness services and quality reviews for home and community-based programs. eQHealth serves a variety of entities including federal, state and commercial clients.