Care Coordination Teams: Are They Imperative to Achieving the Triple Aim in Healthcare?

Exploratory Paper Submission

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Abstract

With the shift in healthcare moving from a fee for service to pay for performance, it is necessary for all healthcare systems to look at their current structure of providing care to patients. The questions that drive this review are simple: is individual patient and population health improving in a given service, and is the per capita cost of providing such care decreasing? Many healthcare organizations in the United States are in the midst of reviewing and executing plans to satisfactorily answer these questions. Some groups are considering an Accountable Care Organization (ACO), a Patient Centered Medical Home (PCMH) or other value based initiatives. In addition, many organizations also are developing care coordination teams to address the issues providers face today. This exploratory paper will investigate current methodologies being utilized to achieve the Triple Aim of healthcare, with a specific focus on care coordination teams and if this methodology embedded with these other quality initiatives described is key to meeting these goals. Studies have shown that these transition teams do support healthcare systems achieving their quality and financial goals, reducing readmission rates, decreasing duplication of services and increasing awareness from patients and family care givers to provide more effective care from home. They play an important role in the success of any quality initiative implemented within an organization and assist in achieving the triple aim of healthcare: improving population health, enhancing the patient experience, and reducing cost. Research will be primarily completed using online articles, trade journals, the MGMA Connection and ACHE Magazine, the Agency for Healthcare Research and Quality, the Center for Medicare and Medicaid Services (CMS), the World Health Organization (WHO), the Joint Commission and the Organization for Economic Cooperation and Development (OECD).
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Care Coordination Teams: Are They Imperative to Achieving the Triple Aim in Healthcare?

Introduction

Health reform, including the evolution of health insurance, has been controversial for over a hundred years in the United States. It did not begin with the Accountable Care Act; it is believed that the creation of health insurance dates back to ancient China and the Norman Conquest. As stated by John Preskitt (2008), MD and author of “Health care reimbursement: Clemens to Clinton,” health care reforms were brought to the recently united kingdoms of England by Henry I, and shortly after John of Essex, physician, was receiving a penny a day for services he was providing to patients. In ancient China, physicians were paid when their patients were cured. In the United States, before the 1920s, medical expenses were very low. Many Americans purchased “sickness insurance” to assist with the expenses and to replace wages lost due to illness. In fact, many insurance companies were unwilling to provide health insurance to patients because not enough research had been done on the risk and premiums associated with the coverage. In the early 20th century, many attempted implementations of compulsory health insurance failed: physicians, pharmacists and commercial insurance companies refused to support them.

A shift in healthcare finally came between the 1920s and 1930s. Families were moving from rural areas to cities, the number of household family members living together decreased, and job opportunities as well as families’ incomes increased. This era began bringing curiosity about improved quality of health and wellness. With the increased earnings and research came a higher demand for health care and health insurance. The development of various medical technologies, using hospitals as treatment centers, and creating licensure and standards of medical care led to increased expenditures in this newly created healthcare system. Expansion continued from the 1930s to 1940s. In 1929 a group of school teachers collaborated with Baylor Hospital to create a
fee schedule for possible hospitalizations. These prepaid plans grew during the Depression and gave hospitals the support they needed to survive during these difficult times (Preskitt, 2008). Vernellia Randall (1994), professor of law and author of Race, healthcare and the law: Speaking truth to power explained,

The Great Depression caused a dramatic change in the economic state of hospitals as patients unable to pay for health care simply stayed away. As early as 1930, average hospital receipts fell from $236.12 per patient in the 1920s to $59.26, bed occupancy dropped from 71.28% to 64.12%, and hospital deficits rose dramatically. (n.p.)

The American Hospital Association partnered with Blue Cross to develop guidelines to reduce price competition between hospitals. The plans fostered increased access to some of the higher quality hospitals. This was the beginning of the creation of Blue Shield, “the plans for physician services” (Preskitt, 2008). However, physicians demonstrated only limited acceptance of health insurance, despite its growing availability, because they were skeptical of third party payers becoming involved in medical treatment. They feared that medical decisions would begin to be based on criteria set forth by these payers instead of what was best for the care of the patient (Randall, 1994). There was a slower, steadier pace to the growth of health insurance in the 1940s to 1960s. Blue Cross/Blue Shield was the first to realize that, financially, they were better off insuring the employed population, understanding that this collection of individuals were considered seemingly healthier. They also started to include insurance coverage as part of their employee benefit package. Many other commercial insurers began to recognize the gains reaped by Blue Cross/Blue Shield from providing coverage to this population and followed suit. Soon after, these companies superseded the Blues’ objective (Preskitt, 2008). Many of these newer commercial plans were able to offer an indemnity benefit to those they covered. To compete, the Blues also added this to their insurance plan, unfortunately leaving behind the service benefit and community rating. The adoption of this individualized rating system left many unable to afford
these higher premium rates. This was the beginning of the gap between those covered by health
insurance and those unable to afford the rising costs (Randall, 1994).

By 1958, 75% of Americans were covered by some sort of private insurance and the
American Medical Association (AMA) opposed any type of nationalized health insurance.
Instead of fighting the AMA, advocates for nationalized health insurance created coverage for
anyone over the age of 65 years who was not employed and could not afford the cost of health
insurance. In 1965 Congress created Medicare and Medicaid (Preskitt, 2008). In what was called
the “usual, customary, and reasonable cost (UCR) system,” responsibility was given to Blue
Shield to reimburse the physicians for their services—“on the basis of ‘customary, prevailing, and
reasonable charges’”—as a method to ensure their participation (Randall, 1994). This created a
system of direct billing.

By 1986, 70% of payments for health coverage were made by private and public
insurance companies. At this time, private insurance companies were mostly paying for services
on a fee for service basis, while government insurance covered on a cost or charge system. Both
of these payment structures incentivized providers to order more services, which was then
exacerbated by defensive medicine practices when the frequency of malpractice suits increased.
The physicians were promised 80% of their customary fees; therefore, if more services were
ordered the physician could see increased compensation. Preventive care was not as lucrative as
other services, and hence was less utilized. A second contributor was the fact that insurers paid
for individual procedures, rather than time devoted to a patient, which led to providers making
more extensive use of medical technology (Randall, 1994). On the other end of the spectrum,
patients covered by such private insurance offered through their employment were also shielded
from the true cost of their healthcare services. They typically were only accountable for 20% of
the actual price of medically necessary procedures, while the insurance company covered the
other 80%. With this structure, covered individuals would not realize the impact of the
overutilization of these overpriced services. Lastly, the maximum possible payment under this UCR system eventually became publically known, and with this information all physicians gradually increased their prices to maximum payment to receive the highest reimbursement they could, causing prices to rise.

During the next fifty years, prices continued to be hidden from both the patient and the employer who most often paid for the insurance premiums. However, as time advanced, employees, government and third party payers began to realize the overutilization of health care and the costs associated with this usage. Employers and third party payers wanted to protect their profits as best they could. In doing so, many began to self-insure to reduce spending, while the governmental groups converted to diagnosis-related groups (DRGs) as a form of reimbursement to hospitals. Unfortunately, many of these efforts were unsuccessful. Both self-insured groups and DRGs allowed for stable premium amounts but never truly addressed rising health care costs. In addition to these attempts at reform, many private payers turned to place more risk on the patient creating high deductible plans instead of “first-dollar coverage” (Randall, 1994). This form of coverage provides the patient with a higher economic incentive to control utilization of healthcare. There was concern that the reverse would occur, creating an under-utilization of services affecting the wellness of the patients.

In the 1990s, efforts for cost containment came to be focused primarily on the physicians. Strong incentives were implemented for physicians to increase cost containment and to act as a gatekeeper limiting excess usage. However, with these stipulations providers were concerned quality of care would be undermined by allowing third party payers to determine a patient’s access to care. This shifted the system from a physician–patient relationship to a physician–patient–third party payer relationship, thus taking away the main objective of health care, taking care of the patient. This new relationship created a managed care business, which entailed restrictions on the decision-making powers of health care providers (Randall, 1994).
most basic forms of managed care are Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs). Randall (1994) states,

An HMO is an organized system of health care delivery for both hospital and physician services in which care delivery and financing functions are offered by one organization.

HMOs provide both services to an enrolled membership for a fixed and prepaid fee. (n.p.)

However, there was strong opposition by the AMA on the basis that managed care, according to them, was “socialized medicine” or “communism.” The growth of managed care plans was hence impeded for many years, until around the 1980s when President Reagan signed a bill allowing for “Medicaid authorization” and “state legal clearance” of HMOs. As the number of covered HMO entities rose, other forms of managed care plans also developed. Third party payers pushed for more reform in cost containment, which resulted in the development of PPOs.

Randall (1994) describe PPOs thus:

PPOs contract directly with an employer through the employer’s health benefits department or indirectly through an insurance carrier to provide health care services from a preselected group of providers. The limited list of providers means that the overall expense to the patient is lower than the expense of traditional insurance. Physicians entering into provider contracts with PPOs agree to accept both utilization review controls and financial risk shifting structures. Third-party payers give consumers economic incentives to use the PPO physicians through reduced fees for services. (n.p.)

Regardless of all these developments, there was still strong opposition to these types of arrangements on the part of providers and consumers. There were increased concerns about quality of care, the access restraints placed on the covered entities, and their inability to consult with any provider of their choosing. In the twenty first century, research by the Institute of Medicine and other organizations provided substantial evidence of tremendous deficiencies in
quality of health care, thus creating the current pay for performance model of reimbursement. This program was developed for the purpose of enhancing quality of care within the US while also lowering healthcare costs (James, 2012).

James (2012) explains,

“Pay for Performance” is an umbrella term for initiatives aimed at improving the quality, efficiency, and overall value of health care. These arrangements provide financial incentives to hospitals, physicians, and other health care providers to carry out such improvements and achieve optimal outcomes for patients. (n.p.)

With this methodology quality is broken down into four classifications: process, outcome, patient experience and structure. Process is defined as the workflow utilized to generate beneficial healthcare outcomes for those served (James, 2012). Outcome is assessed on the basis of how the patient is affected by the care provided. Patient experience is the patient’s perception of and satisfaction with the quality of the healthcare they have received (James, 2012). Lastly, structure relates to the overhead that is utilized to provide treatment.

In March 2010, the Affordable Care Act was signed into law and put into practice. This Act magnifies the workings of pay for performance, especially in Medicare, and encourages new initiatives to be created to improve quality and reduce cost per capita. Two of the largest programs designed under the Affordable Care Act that utilize pay for performance are Accountable Care Organizations (ACO) and Patient Centered Medical Homes (PCMH). An ACO is a collaboration of providers that have all consented to, and are held accountable for, providing superior care at a low cost. PCMH is chiefly associated with primary care practices, even though it is starting to be implemented in the specialty practices. It is a model of care that is focused on providing a team-based approached to high quality care that is accessible to all patients. Additional programs developed under the Affordable Care Act include value based purchasing,
physician quality reporting, Medicare Advantage plan bonuses, shared savings, bundled payment and partial capitation (James, 2012).

In April 2015, the Medicare Access and CHIP Reauthorization Act (MACRA) was created, completely altering the method of reimbursement from Medicare by combining a variety of quality programs into one new system and forcing physicians “towards risk-bearing value arrangements” (Pizzo & York, 2016). Under MACRA, the sustainable growth rate (SGR) formula is eliminated and two other structures are created to incentivize physicians to provide quality healthcare services: Alternative Payment Models (APMs) and Merit-based Incentive Payment Systems (MIPS). All of the recently created quality incentives such as the physician quality reporting program (PQRS), value based payment modifier and meaningful use are merged together under MIPS, while the “bonus payments for participation” is available under APMs. These arrangements were implemented to associate multiple levels of risk and reward with providers’ quality goals, to provide additional opportunities for more physicians to participate in these measures, and to promote a better understanding and support for these initiatives. MIPS is calculated through a collective performance score based on quality, resource used, clinical practice improvement activities and meaningful use of certified EHR technology. The composite score determines a positive, negative or neutral adjustment to the Medicare reimbursement payments. These adjustments will increase each year from 2019 to 2022. APMs are a new alternative to Medicare reimbursement payments based on quality and value. According to CMS, Most physicians and practitioners who participate in APMs will be subject to MIPS and will receive favorable scoring under the MIPS clinical practice improvement activities performance category. Those who participate in the most advanced APM (ACOs or PCMHs) may be determined to be qualifying APM participants (“QPs”). As a result, QPs are not subject to MIPS, receive 5% lump sum bonus payments for years 2019-2024 and
receive a higher fee schedule update for 2026 and onward. (The Medicare Access and CHIP Reauthorization Act)

Healthcare has become one of the leading expenditures in the United States; it is widely known that the United States spends more on healthcare per capita than any other developed country in the world. The Office for Economic Cooperation and Development (OECD) is responsible for reporting on health statistics as one of its core functions. According to Courtney Baird (2016), “According to the latest OECD health statistics the United States spends 16.4 percent of GDP on healthcare—almost twice the OECD average of 8.9 percent. In per capita health spending, the United States fares even worse, spending $8,713 per capita, or more than 2.5 times the OECD average” (refer to Figures 1 and 2) (n.p.). Five reports have been produced since 2004 from the Commonwealth Fund comparing the quality of the United States health systems to those of other developed countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United Kingdom. In every report the United States has ranked the lowest. The National Research Council and Institute of Medicine developed another report examining population health in the United States and 16 other developed countries, in which, again, the United States illustrated poorer health at any stage in life than any other of these countries. Specifically, this report demonstrated women in the United States having a higher death rate due to complication during pregnancy, a higher death rate in children under five, “the second-highest rate of death by coronary heart disease, the second-highest rate of death by lung disease,” and some of the highest incidences of heart disease, lung disease, obesity and diabetes (Baird, 2016). Many other investigations completed by the World Health Organization and the OECD have reached the same findings (Baird, 2016). In 2011 alone, Medicare spent $17 billion for unexpected readmissions through the fee for service reimbursement system.

The Medicare Payment Advisory Committee estimated that $12 billion of Medicare spending is depleted on preventable hospital readmissions (Silow-Carroll, Edwards Lashbrook, &
Health Management Associates, 2011). It is projected that by 2020, 19.8% of GDP will be spent on healthcare (Barnes, 2012). The expense of healthcare will continue to rise without reform, and the current rate of increase is not sustainable. As seen in the statistics mentioned above, it is also extremely important for the United States to start to focus on population health and providing the best quality of care for its patients. The fee for service reimbursement system incentivizes physicians to continue to order additional unnecessary testing, and care continues to be uncoordinated, creating duplications in orders, medication errors, and increasing readmission rates, all of which raises the cost and lowers the quality of care. Under new initiatives for pay for performance, more emphasis is put on efficiency and effectiveness to lower costs, increase collaboration among providers, and to improve quality of care. As Barnes (2012) argues, “To help ensure a healthier and fiscally sustainable future for our nation, we must move away from fee for service and realign incentives to promote value instead of volume of care.”

**Key Healthcare Definitions**

**Quality of care.** Quality of care is defined by the Institute of Medicine (IOM) as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Mitchell, 2008). The IOM, in addition, determined a list of standards in order to measure quality of care; if all six objectives were met high quality of care would be achieved. These six targets listed are: safe, effective, patient-centered, timely, efficient and equitable (Mitchell, 2008). As healthcare has developed, technology has become more sophisticated. The rate at which it has advanced has negatively affected the care that providers have supplied to patients. Therefore, it is clear that more resources and expenditures do not in and of themselves lead to an improved outcome of care. With these advancements and reimbursement developments of fee for service, health care systems have experienced loss of cost control and the creation of a fragmented system, producing a decrease in quality. The United States is currently struggling with establishing which quality
initiatives would be most effective in providing the best possible outcome in resolving the dilemma that the country is facing in terms of healthcare (Quality of Care, 2006).

**Transition of care.** Transition of care is described as a patient’s advancement through a healthcare system from one setting to the next (Eligible Professional, 2014). Healthcare settings include hospital, ambulatory, primary care, specialty, home health, and rehabilitation facilities. Under the Affordable Care Act, various approaches have been implemented, revealing which are the most effective in providing the best continuum of care and safety for the patient through these transitions. Safety and quality of care can only truly be achieved during the full spectrum of patient care through collaboration of providers and in many instances an interdisciplinary team (Transitions of Care, 2013). Poor transition of care has been associated with many negative outcomes, including low patient satisfaction and high hospital readmission rates. In numerous incidents, fragmented care is caused by inadequate communication and transfer of information, improper patient and family education, insufficient access to essential services, and the lack of coordination of care between the various settings (Naylor & Keating, 2009). The federal government’s aim within the next few years is to save $26 billion dollars in preventable readmissions to hospitals.

According to the Department of Health and Human Services, “one in five patients who leave the hospital will be readmitted within 30 days.” The Medicare Payment Advisory Commission estimates that up to 76% of these readmissions may be preventable and the average cost to Medicare per preventable readmission is $7,200. (What Are Care Transitions, 1995-2016)

The development of care coordination teams will allow organizations to concentrate on the continuum of care for patients through the healthcare spectrum, ensuring smoother transitions between settings, proper communication, collaboration between providers, orders and treatments,
and ultimately a reduction in errors, readmissions, and duplication of orders to reduce the total expenditure of healthcare spending (What are Care Transitions, 1995–2016).

**Care transition coaching.** Care transition coaching is an integral function within the care coordination team. This is typically provided by a nurse or a social worker employed by a hospital or long term care facility that works closely with patients, providing them with the education, expectations, and tools necessary to self-manage their care (What are Care Transitions, 1995–2016). Some of the main responsibilities of this position may include “medication self-management, use of patient-centered health record that helps guide patients through the care process, primary care provider and specialist follow-up, and patient understanding of ‘red flag’ indicators of worsening condition and appropriate next steps” (Coleman Care Transitions Intervention, 2016).

**Care coordination.** Care coordination is the collaboration among two or more participants, including the patient, to determine the most effective, safe and high quality care for the patient and the most efficient delivery of that treatment. This relationship must include methods of utilizing resources, personnel and communication, including the exchange of information to best treat and deliver care to the patient (What is Care Coordination, 2014). According to the IOM, care coordination is “a key strategy that has the potential to improve the effectiveness, safety and efficiency of the American health care system” (Care Coordination, 2015). Perspectives from the individuals involved are typically on how care coordination is measured, and patients and their families, health care professionals and system representatives can be involved in these collaborations. The patient/family objective of care coordination would be that all expectations, needs and preferences are exceeded. It is standard that care coordination breaks down during the patient’s transition of care. Therefore, high coordination of care to the patient would include smooth and consistent care throughout a healthcare system without any fragmentations, miscommunications or errors. The health care professional’s purpose is to assess,
meet, and exceed the needs of the patients while efficiently guiding them through the system.

System representatives aim to integrate resources and information to facilitate successful delivery of care within and across healthcare systems. Failure to meet these objectives has negative effects on the financial performance of the institution and/or patient care. Figure 3 depicts a healthcare system’s care coordination ring described above (What is Care Coordination, 2014). If care can be coordinated and collaborated for an efficient delivery, financial and clinical outcomes can greatly improve for all parties involved in this formation. As a consequence of this, development in this arena of the current health care reform is important in enhancing quality, improving patient experiences and reducing cost per capita.

**Care management.** As stated in the article “Care management definition and framework,” written by the Center for Health Care Strategies (2007),

care management programs apply systems, science, incentives, and information to improve medical practice and assist consumers and their support systems to become engaged in a collaborative process designed to manage medical/social/mental health conditions more effectively. The goal of care management is to achieve an optimal level of wellness and improve condition of care while providing cost effective, non-duplicative services.

Table 1 depicts the tools and strategies needed within the seven care management components along with each components definition (Care Management Definition and Framework, 2007).

**Dyad.** The Morgan Executive Development Institute (From Dyad to Triad, 2015) defines a dyad model as a “dynamic joint leadership between traditional administrative leaders and clinical leaders. Shared accountability should result in continuous improvement.”
What Methodologies Are Systems Currently Using to Improve Health Care and Cost?

**Accountable Care Organizations (ACOs).** Within the Affordable Care Act and under pay for performance, many new models of care and reimbursement have been developed and experimented with to determine which system will best satisfy the needs of our current healthcare system. One of the most popular options is Accountable Care Organizations (ACOs), which have been defined as “a group of health care providers, plans and other health care constituents, who voluntarily come together to provide coordinated high-quality care to populations of patients” (Haughom & Burton, 2016). The focus of ACOs is to provide coordinated, high-quality and timely care without errors, readmissions or duplication of services to the patients they serve. The vision of this methodology requires payment to be devised under a capitation arrangement and incentivized on “quality, safety, efficiency, and health outcomes” (Haughom & Burton, 2016). This payment model shifts the risk from the insurance companies to the providers, who are now receiving a fixed payment to care for a determined population size instead of being paid on a per patient basis. Providers are now compelled to offer more collaborative care to reduce the number of unnecessary services provided, and incentivized to focus more extensively on preventive medicine, as this approach is far better at reducing expenses. Typically, larger ACOs face less risk as they can “more effectively manage variations in service requirements and costs” (Haughom & Burton, 2016). As a consequence of this, ACOs will attempt to increase the population they care for, ultimately causing mergers, acquisitions and growth. In order to succeed under this form of pay for performance, organizations will be required to learn and become efficient in population health management, accountable care management, financing, risk management, marketing, analysis, communication and negotiation (Haughom & Burton, 2016).

**Patient Centered Medical Homes (PCMH).** Patient Centered Medical Homes (PCMHs) are the second largest example of pay for performance initiatives. PCMHs create collaboration
among patients, physicians, pharmacists, social workers and caregivers to deliver comprehensive primary care services to the individuals in the population they serve and by eliminating unnecessary hospitalizations. Again, there is a huge push towards the utilization of preventive medicine and patient education for self-management care. Bosko and Gulotta (2016) claim that, “Primary Care Providers are tasked with driving care via a proactive, collaborative approach with patients and specialists and a focus on chronic disease management” (n.p.). This alliance created between providers and patients allows for increased coordinated care through a team approach to address the patient’s needs while including them in the decision making process. There are five core principles embedded into the PCMH program: Comprehensive Care, Patient-Centeredness, Coordinated Care, Accessible Services, and Quality and Safety. To achieve true comprehensive and coordinated care a team needs to be designed including “physicians, advanced practice nurses, physician assistants, nurses, pharmacists, nutritionists, social workers, educators, and care coordinators” to increase communication and improve transition of care (The Patient-Centered Medical Home, 2016). These teams will improve the quality of care, generating a more successful outcome for the patient by eliminating errors and waste. The main focus of this program is to construct treatment options suitable and appropriate to the assigned patient, with the patient always put in the forefront and included in the decision making process of their care.

Accessibility of care is always a main concern for both physician groups and patients. In PCMH accessibility is strengthened through shorter waiting times for urgent matters, increased available in-person appointments, a reachable care team 24 hours a day by phone or electronic means and multiple forms of offered communication by phone or email. Lastly, there is a concentration on quality improvement through the utilization of evidence-based medicine and clinical decision-support tools in decision making that is shared with patients and families (The Patient-Centered Medical Home, 2016).

**Patient Navigator Programs.** The Patient Navigator Training Collaborative (What is a patient navigator?, 2015) defines a patient navigator as a “member of the healthcare team who
helps patients ‘navigate’ the healthcare system and get timely care. Navigators help coordinate patient care, connect patients with resources, and help patients understand the healthcare system. Patient navigators work in many areas of healthcare. Many have one chronic disease focus area such as cancer, heart disease, or diabetes.”

**Hospital Value-Based Purchasing Program (VBP).** The Hospital Value-Based Purchasing Program (VBP) was developed under Medicare to incentivize acute care hospitals in terms of the quality of care they deliver to Medicare patients, designed to encourage improvement in clinical outcomes and patient experience during hospitalization (Linking Quality to Payment, n.d.). Approximately 3,500 hospitals across the country are participating in this approach. There are 20 key quality measures that are assessed for each participating hospital, with scores for achievement and improvement calculated on the basis of these measures; higher scores equate to higher bonus payments (Baird, 2016). Tables 2 to 4 present the measures utilized to evaluate each participating hospital during fiscal years 2016 through 2018 (CMS, 2015). Under the Affordable Care Act, CMS will also be responsible for creating similar programs for “health home agencies; skilled nursing facilities; ambulatory surgical centers; specialty hospitals, such as long-term facilities; and hospice programs” (James, 2012).

**Hospital Readmissions Reduction Program.** In October of 2012, the Hospital Readmissions Reduction Program was developed under Medicare to penalize by 1% reimbursement to any acute care hospitals with increased readmission rates that were currently getting paid under CMS’s Inpatient Prospective Payment System (IPPS). The focus of this approach is to reduce hospital readmissions by improving quality and transition of care. Data assessed is collected from patients requiring “high-cost or high-volume conditions and procedures” (Linking Quality to Payment).
Hospital-Acquired Condition (HAC) Reduction Program. Medicare (n.d.) states,

The Affordable Care Act authorized Medicare to reduce payments to subsection (d) hospitals that rank in the worst performing quartile (25 percent) of subsection (d) hospitals with respect to hospital-acquired condition (HAC) quality measures. The worst performing quartile is identified by calculating a total HAC score which is based on the hospital’s performance on risk adjusted quality measures. Hospitals with a total HAC score above the 75th percentile of the total HAC score distribution may have their payments reduced to 99 percent of what would otherwise have been paid for such discharges.

The goal of this program is to reduce hospital-acquired conditions and patient safety events by increasing patient safety during hospital stays (Linking Quality to Payment, n.d.).

Physician Value Modifier Program (VBPM). Value modifiers apply to outpatient practices in a manner similar to the value based purchasing methodology described above.

Quality and cost measures are set and physicians are rewarded when they are able to successfully fulfill those standards created. This method relies on data collected through the Physician Quality Reporting System (PQRS). In addition, CMS utilizes outcomes and cost measures and compares them to national benchmarks to determine the amount of positive or negative reimbursement to eligible professionals or provider’s offices. There are six quality fundamentals used to calculate rates of reimbursement within the physician value modifier program: clinical process/effectiveness, patient and family engagement, population/public health, patient safety, care coordination and efficient use of healthcare resources. CMS also uses three outcomes measures to determine reimbursement: a composite of acute prevention quality indicators, a composite of chronic prevention quality indicators, and all causes for readmissions. The last category used in the VBPM quality-tiering analysis is cost measures, which criterion includes:
total per capita costs; total per capita costs for beneficiaries with the following four chronic diseases: Chronic Obstructive Pulmonary Disease (COPD), Heart Failure, Coronary Artery Disease and Diabetes; and Medical spending per beneficiary measure (MSPB). All performance outcomes and cost measures are risk adjusted so to not skew the scale for any patients that may lead to “higher costs and lower quality of care.” (The Value-Based Payment Modifier, 2014)

**Physician Quality Reporting System (PQRS).** The Physician Quality Reporting System (PQRS) program encourages physicians to submit data to Medicare on specific quality measures. They are reimbursed on the basis of a performance score that is calculated from the information they report (Baird, 2016). CMS.gov (2016) states,

In 2015, the program began applying a negative payment adjustment to individual eligible professionals (EPs) and PQRS group practices who did not satisfactorily report data on quality measures for Medicare Part B Physician Fee Schedule (MPFS) covered professional services in 2013. Those who report satisfactorily for the 2016 program year will avoid the 2018 PQRS negative payment adjustment.

This information can be utilized to provide a better quality of care to patients. It is a way of quantifying the treatment received by patients and measuring it to see how it can be provided more efficiently. Some of these performance scores are also available online on Physician Compare profile pages so that Medicare patients can make more informed decisions on the providers they chose to see (Physician Quality Reporting System, n.d.).

**Medicare Advantage Plan Bonuses.** Medicare Advantage Plans have, for some time, been judged on quality. A rating scale of one to five stars (one being the lowest performer and five being the highest) is posted on the CMS website, giving Medicare beneficiaries more information for their decisions on their coverage plan. Starting in 2012 under the Affordable Care
Act, Medicare Advantage Plans began receiving bonuses on the ratings they received. In addition, higher scores equated to higher reimbursement rates. A tiered system was developed in 2016 differentiating the bonus percentages each plan received. If four or more stars were obtained, a 5% bonus would be distributed, and if three stars or less were received or if a plan was new they would collect a 3.5% bonus. Jacobson, Gold, Damino, Neuman, and Casillas (2015) emphasize,

In 2016, the majority (40%) of Medicare Advantage contracts will have ratings of four or more stars—an increase from 33 percent in 2015. In 2016, as in prior years, few contracts (4%) receive the top star rating (5 stars), a slight increase from 2 percent of contracts in 2015. The vast majority of Medicare beneficiaries (94%) will have access to at least one plan with four or more stars in 2016, including one-quarter (24%) of beneficiaries who will have access to a plan with five stars. (Jacobson et al., 2015).

**Bundled payments.** Shifting from fee for service, a few different forms of reimbursement have been developed to cut down the cost per capita and the ordering of any unnecessary testing and services. One form is bundled payment, whereby each episode of care that could be provided in a healthcare setting is examined and the expected cost of services needed to treat the patient is determined. Under bundled payments, providers would receive only this stipulated amount to care for a patient requiring a particular episode of care. This encourages the physician to only order necessary services and treatments and to eliminate waste. However, it is also the expectation that the patient would receive a sound quality of care and a successful outcome (Barnes, 2012).

**Shared savings.** A shared savings payment model “financially rewards providers who come in under a yearly ‘benchmark’ spending goal and adhere to quality standards” (Barnes, 2012). This form of reimbursement is typically used within ACOs. Some aspects of this method
exhibit similarities to fee for service, but it is differentiated through its use of incentives urging quality and cost improvement (Barnes, 2012).

**Partial capitation.** Intended to promote cost control and a consciousness of expenses, this form of payment was originally utilized in the 1980s and 1990s. Capitation can be defined as a flat rate of reimbursement per patient, regardless of diagnosis or treatment. Twenty-five years ago, this payment method discouraged providers from caring for sick, costly patients; yet today it has been shown to provide “increased provider consolidation allowing for more effective care coordination, better risk adjustment mechanisms encouraging fair compensation to providers who take on sicker patients, and improved health information technology and data sharing enabling greater clinical efficiency” (Barnes, 2012).

**Care Coordination Teams**

One commonality among all of these initiatives is care coordination. This type of collaboration increases communication among providers and allows for more efficient transition of care to improve healthcare outcomes and the patient’s experience, and reduce cost per capita. As stated previously, the United States healthcare system is considered highly fragmented, characterized by gaps in communication and discontinuity of care, leading to duplications in orders and services and treatment errors to patients. To provide effective care coordination, many organizations have begun to develop care coordination teams in conjunction with these other quality methodologies.

McDonald, Sundaram, Bravata, and Lewis (2007) claim, Coordination for patients with complex health care needs often involves multiple participants who individually provide specialized knowledge, skills, and services, and who together potentially provide a comprehensive, coherent, and continuous response to a patient’s unique care needs. Three vignettes in a recent policy monograph by the American College of Physicians provide concrete examples highlighting the need for
highly coordinated delivery of care when multiple participants depend on each other to provide appropriate care. These teams have a patient-centered focus ensuring that the patient’s needs and expectations have been met. The patient is involved in the decision making process to ensure that the appropriate healthcare services are provided. These teams are becoming increasingly important (Kmetz, 2015). As the baby boomer generation ages, there is a corresponding increase in the incidence of chronic diseases. Consequently, chronic disease management will continue to be an integral part of any healthcare solution. These more complex patients tend to have multiple specialists and primary care physicians overseeing their care. It is typically seen that these various providers do not efficiently communicate with one another to provide a successful continuum of care. This is one of the reasons the United States health care system has become so fragmented. In addition, patients struggle with retaining the information supplied to them by their providers; it is estimated that only 40% of the medical information is maintained (Silow-Carroll et al., 2011).

Characteristically, such interdisciplinary teams are comprised of physicians (inpatient and outpatient, primary and specialist), administration (physician leader and management leader), nurses (care managers and care transition coach), social workers, clerical staff (patient care coordinators), pharmacists, caregivers and the patient. These members come together in a unified and complementary fashion to address the needs of high risk patients who require additional assistance through transitional gaps and more extensive communication to improve their health outcome. Each of these players provides an important aspect of healthcare delivery to this team. The entire inpatient and outpatient teams huddle on a daily basis to ensure continuity of treatment: an understanding of where on any particular day each patient is on the spectrum of care, as well as agreement on what the next steps of care are for the patient and who is responsible for those steps. It is important that the patient’s needs, barriers and risks of care are identified so suitable care is received. The physicians and nurses from both the inpatient and outpatient units, primary care and specialists, as well as social workers and pharmacists
participate in weekly team rounds to present continuous discussion with each other on the patients that they are caring for, with a focus on “delivering continuous care between systems” (Kmetz, 2015). The inpatient and outpatient units are involved in this meeting so to support a smooth transition from inpatient to the outpatient setting, as this is considered crucial to reducing the rate of readmissions (Silow-Carroll et al., 2011). This information is passed on to the outpatient practice team in one of their daily huddles with physicians, RNs and clerical staff to clarify what items in the continuum of care are their responsibility and what has been completed to this point.

One of the registered nurses involved in this care coordination team, typically an outpatient RN, will be appointed as the transition coach. This transition coach will work directly with the families to ensure that they are receiving the necessary information to be discharged home from the hospital and will then arrange for a post discharge home visit. This transition nurse will follow up with the patient 48–72 hours after discharge to review all medications prescribed, reinforcing the education that was provided to the patient about their diagnosis before leaving the hospital, reevaluating the patient’s red flags in their records, and reiterating to the patient when it is necessary to contact a physician. Another three calls will be made to the patient within a 4 to 6 week period after discharge to discuss any further questions on their diagnosis or medications. Follow up appointments will also be reviewed during these phone calls (Care Transitions Program, 2011). The pharmacist and transition coach work together with the providers to determine which medications are best for the patient. They also work together to educate the patients on the medications they are taking and ways to minimize the number of prescriptions they are receiving.

The physician and administrative leaders come together to lead and develop the team by providing constant support, focusing on continuous process improvement and reinforcing the culture among the team. It is vital that there is a consistent culture and care goal among all members of this team. As Traver, Fellow and Families USA (2013) put it,
The transformation of our care delivery system begins with reorienting the process of care delivery from fee for service approach to the fundamental goal of the health care system: to keep the patients healthy. This will require a significant cultural shift toward true patient-centered, team-based care, and a redefinition of how patients, caregivers, providers, insurance companies and administrative staff interact with each other.

It is necessary that the administrator and physician leaders create a dyad leadership to effectively direct and assist the team. This structure will prove unsuccessful without the whole team’s engagement, especially the physician’s. The only way to develop this buy in is through a strong leadership set.

The social workers and clerical staff work together with the transition coach to ensure that follow up care is delivered. This includes the patient’s psychological and social needs as well as appointments being made and transportation scheduled. It is this staff’s responsibility to ensure that any potential barriers patients may face in respect of adhering to prescribed treatments are addressed (Traver et al., 2013). The caregiver and the patient will receive from the team the information necessary to make informed decisions on their care treatment plans and provide some sort of self-care management.

Strategies key to the flourishing of care coordination that need to be embedded during the development and operation include the following:

- communication and collaboration with other team members through warm handoffs and sharing of clinical information; selection of preferred post-acute care providers; patient, family, and caregiver education about clinical condition and available resources;
- scheduling of medical appointments after discharge; reconciliation of medications; and identification of opportunities for quality improvement to achieve better outcomes.

(Bosko & Gulotta, 2016)

Strategies can be rooted in these care coordination teams to assist in achieving the triple aim in health care; these approaches include patient education/engagement, post discharge follow up,
collaborating with community providers to promote continuity of care, use of information technology and strong end of life care (Silow-Carroll et al., 2011).

**Patient Education/Engagement**

During discharge, the transition coach provides follow up care instructions to the patient and families. To ensure that there is an understanding of these directions, the coach requests that the patient “teach back” the information provided. This allows the coach to recognize areas of confusion and what additional teaching is required prior to discharge. Additionally, the transition coach, RNs and socials workers are provided with training to assess the literacy level of the patients for whom they are caring in order that the education on follow up care and medications may be delivered at a level that is understandable and relevant. Many patients have a reduced access to medications needed for treatment; “a medication assistance program or a clinic with free medications” can be set up to assist patients who are unable to afford these medications (Silow-Carroll et al., 2011).

**Post Discharge Follow Up**

Telemonitoring devices make it possible to follow up with patients after they have been discharged from the hospital and before they transition into the outpatient practices. This also allows for clinicians to “intervene early if there is evidence of clinical deterioration” (Silow-Carroll et al., 2011). The devices provided to patients have the ability to monitor “blood pressure, pulse, oxygen saturation, weight and blood sugar” (Silow-Carroll et al., 2011). This information is forwarded to an RN on the team who reviews the data and follows up with the patient with action items if the numbers are not within the required parameters. Similarly, an organization could use a cost-effective interactive voice response (IVR) system – a feature common on many phone systems. For example, cardiac patients would be discharged with specific clinical goals outlined, such as weight and blood pressure. They would be provided a phone number to call each day to report on each data point. If any abnormal numbers were relayed, the IVR system would notify an assigned nurse, who would then follow up with the patient with appropriate care (Silow-
Carroll et al., 2011). Lastly, patients are connected with a primary care physician after discharge if this relationship does not currently exist.

**Collaborating with Community Providers to Promote a Continuum of Care**

Care Coordination teams work well when they are deployed by hospitals with employed physicians in both the inpatient and outpatient sectors. In the event that follow up care after discharge is provided by a local private group, it is important to create a strong working relationship with these organizations to provide high quality of care. This relationship should be similar to what would be developed with employed colleagues in the outpatient setting so that these providers can be involved in providing a cohesive continuum of care for patients. Communication is always the key to developing these relationships and improving the transition of care for patients. In many instances, hospitals have the ability to notify community physicians through their electronic record that their patients have been discharged so they can provide appropriate follow up care.

**Use of Information Technology**

Now that most healthcare organizations are established with an electronic medical record (EMR), it is preferable to use it to track and report patient data. This enables providers and healthcare leaders to compare benchmark performance measures to other similar organizations, implement process improvement methods and “compile physician report cards” (Silow-Carroll et al., 2011). These systems also allow for increased sharing of information to care for patients along the continuum of care. With this advancement in technology, many organizations have developed registries and assessment tools through their EMR to notify “physicians of needed tests or interventions and highlight any gaps in care” (Silow-Carroll et al., 2011). In addition, “branching logic can be built into nursing assessment tools to trigger automatic referrals for case management, social work consults, or other services based on a patient’s answers to an assessment” (Silow-Carroll et al., 2011). If there are variations among the EMRs that does not
allow for effective communication between systems, patient’s data can be shared through a health exchange, like the Health Information Exchange of New York (HIXNY).

**Strong End of Life Care**

It is necessary for a care coordination team to have clear directives on the patient’s wants and needs regarding care treatment options and end of life support. To establish a trusting relationship with the patients one is serving, it is important to have these conversations regarding advanced directives and palliative/hospice care to know what the best options of treatment are for that patient and to abide by their expectations and goals (Silow-Carroll et al., 2011).

**Implementing a Care Coordination Team**

As organizations begin to shift their systems to a patient-centered focus, quality committees will be necessary to assist in facilitating these changes. The quality team will need to evaluate the organization and determine the best mechanism for implementing any of these initiatives, including the care coordination teams, as each organization is different.

Once the need for teams has been identified, a business plan would need to be developed and presented to the board. Information in this business plan would include implementation plans, stakeholders who will be involved, and monies and benefits associated with its creation. Stakeholders might include the physician and administrative leaders responsible for the development and success of the team. Once the plan is approved, implementation would begin. The physician and administrative leaders would be notified of their new roles. A provider meeting including both primary and specialty care would be convened to notify providers in the organization of this new initiative, while requesting their participation to care for any of their patients who may be included in these teams. Nurse managers and practice administrators would also be gathered to deliver this information to them, and it would be their responsibility to disseminate this information to their staff and implement protocols created by the quality committee and administrative dyad. The nurse manager would ensure that daily rounding would be performed while the practice administrator would confirm that daily huddles were conducted.
with each provider and their assigned nurse and clerical staff. When physicians are involved in this care coordination team so is their assigned staff. The social worker and pharmacy departments would be notified of this new program and participate in the same fashion as the providers.

In the beginning stages, two RNs would be hired as transition coaches to work with each patient and associated providers to ensure appropriate care. As the service expands, the number of transition coaches will need to be re-evaluated to properly care for the participating patients. The salaries of these transition coaches are the only additional expenses created by these newly developed teams, as all other staff are currently employed. Patients involved in these teams would be determined on the basis of a risk-stratified care management method or referred into the program. Patients involved in this program would typically be ones that are a high risk with multiple co-morbidities requiring additional coordination. Patients and caregivers would have to provide consent to participate in these teams prior to being enrolled. Physicians would be notified of their patient’s enrollment through electronic records utilized in the organization.

It is very important, in the initial stages of planning, to standardize care among these different areas and define roles so each individual involved in the team understands what their responsibilities are. The administrative and physician leaders in each of the primary and specialty areas would be required to participate in a number of preliminary meetings to discuss new work flows; training on traditional team approaches, communication and problem solving; and roles and expectations (Practice Facilitation Handbook, 2013). Performance measures would also need to be established to “monitor the care team’s effectiveness” (Practice Facilitation Handbook, 2013). Again, it is the responsibility of the leader of each unit to make sure this information is dispersed to their staff, as well as ensuring efficient and successful implementation and execution of the plans created during these initial meetings. Once these teams have been formed, monthly meetings would take place with leadership and the quality committee to ensure that no problems have arisen and to continue discussion on how to constantly improve these systems.
Challenges to Overcome in Developing an Effective Care Coordination Program

With any project, there are challenges to overcome to create an effective program. Care coordination teams facilitate collaboration between all levels of healthcare professionals. As stated above, culture is very difficult to embed and implement. It requires all participants to share similar values and beliefs, which entails a shift in thinking by those individuals involved in the team. Additionally, there has to be a sense of compliance, actively participating in scheduled meetings and training. Other obstacles that may be faced include health system barriers (i.e. functionality of electronic record system); time pressures; lack of reimbursement for time in meetings; insufficient facilities, administrative and staff support; and poor interpersonal and professional relations between team members, which can cause conflict and ineffective communication (Tang, 2009).

Benefits of a Care Coordination Team

Care coordination teams are a highly effective approach to pay for performance initiatives. They facilitate collaboration between providers, increasing communication and efficiency in transitioning patients from one healthcare setting to another. Many studies have found evidence that these teams assist healthcare organizations achieve the triple aim goal: improving quality of care by increasing continuity of care and reducing medication errors, missed appointments and duplication in services. In addition, patient experience is enhanced by increasing the patient’s awareness and education of chronic conditions and addressing the psychosocial and socioeconomic needs of the patient. Cost per capita is also decreased by a reduction in avoidable hospital readmissions, missed appointments and duplicated services. Multiple other benefits have been demonstrated by healthcare settings implementing this methodology:

- reductions in emergency department visits, noticeable decreases in medication costs,
- reduced inpatient charges, reduced overall charges, average savings per patient,
- significant increases in survival with fewer readmissions, lower total annual Medicare
costs for those beneficiaries participating in pilot projects compared to control groups, increased patient confidence in self-managing care, improved quality of care, increased safety of older adults during transition from an acute care setting to the home, improved clinical outcomes and reduced costs and improved patient satisfaction overall. (The Value of Nursing Care Coordination, 2012)

The two case studies presented in Appendix A demonstrate two separate organizations that have implemented care coordination teams within their institutions, the benefits they received from embedding this group and how the triple aim of health was successfully achieved.

**Disadvantages of a Care Coordination Team**

Creating care coordination teams can be very demanding in terms of time and resources. In the beginning stages, meetings and trainings are intensive, and if a team is poorly designed it can generate additional “redundancies and discrepancies in patient care and communication” (Tang, 2009).

In these systems group decision making can lead to ‘treatment by committee’ instead of individual providers taking charge of their patient’s care (Tang, 2009). This may ultimately impact the provider-patient relationship and have negative effects on quality of care. In addition, as Tang (2009) argues,

> While a culture of debate is central to effective multidisciplinary discussions, collective decision making can be hindered by strongly conflicting opinions. Even when a consensus is reached, if there are no reliable documentation and communication processes in place, patients may still be provided with inconsistent and incomplete information.

**Risk Stratified Care Management**

As defined by the American Academy of Family Physicians (AAFP) (2016), Risk-Stratified Care Management (RSCM) is
the process of assigning a health risk status to a patient, and using the patient’s risk status to direct and improve care. The goal of RSCM is to help patients achieve the best health and quality of life possible by preventing chronic disease, stabilizing current chronic conditions, and preventing acceleration to higher-risk categories and higher associated costs.

This is the mechanism that care coordination teams utilize to determine which patients their services would be most effectively used. According to the AAFP, there are several risk factors used to categorize patients: health risks calculated based on a health risk assessment completed by the patient, “clinical diagnosis (primary conditions and co-morbidity conditions); utilization data (cost of care) from insurers and/or other sources and clinician’s personal knowledge related to a patient’s social, financial, mental, or physical conditions” (Population Risk Stratification, 2014). There are several mechanisms that utilize these risk factors to calculate risk stratification: hierarchical condition categories (HCC), adjust clinical groups (ACG), elder risk assessment (ERA), chronic co-morbidity count (CCC), Minnesota tiering (MN), and Charlson co-morbidity measure.

**Hierarchical condition categories (HCC).** HCCs were created in 2004 by the Centers for Medicare and Medicaid Services to “adjust Medicare capitation payments for health expenditure risk of Medicare Advantage Plan enrollees” (Haas et al., 2013). This methodology assigns a risk factor score based on 70 conditions categories. This score is calculated using ICD-9 codes and demographic information from the patient (Haas et al., 2013).

**Adjusted clinical groups (ACG).** ACGs were developed by John Hopkins University, specifically it grew based on researched compiled by Barbara Starfield, MD, PhD and professor at John Hopkins University, and her colleagues (About the ACG System, 2016). This approach “uses both inpatient and outpatient diagnoses to classify each patient into one of 93 ACG categories. It is commonly used to predict hospital utilization” (Just, 2016).
**Elder risk assessment (ERA).** An index score is assigned to any patients over the age of 60 that have been admitted to the hospital within the prior 2 years. The score is calculated on the basis of age, gender, marital status, the number of days spent in the hospital and diagnosed co-morbidities (Just, 2016).

**Chronic co-morbidity count (CCC).** CCCs are “the total sum of selected comorbid conditions grouped into six categories” (Just, 2016). Patients are assigned certain levels of risk ranging from 1 to 6, 1 being patients who are “healthy and ha[ve] no known chronic diseases” and 6 being patients who have “extremely high health care resource utilization and are under the care of several sub-specialties” (Population Risk Stratification and Patient Cohort, 2014).

**Minnesota Tiering (MN).** Under the MN approach, patients are tiered from 0 to 4 based on major extended diagnostic groups (MEDCs). Patients are put into any one of these tiers based on the number of conditions with which they have been diagnosed. Patients with no conditions would be placed in tier 0; one to three conditions tier 1; four to six conditions tier 2; seven to nine conditions tier 3; and 10 or more conditions tier 4 (Just, 2016).

**Charlson comorbidity measure.** This measure is typically used to forecast future outcomes. “The Charlson model predicts the risk of one year mortality for patients with a range of comorbid illnesses….the model uses the presence/absence of 17 comorbidity definitions and assigns patients a score from one to 20, with 20 being the more complex patients with multiple comorbid conditions” (Just, 2016).

All of these methodologies are similar in that each calculates risk on some level through co-morbidity, largely because co-morbidities create an increase in risk and cost. Therefore, this is an important factor to understand to successfully manage population health (Just, 2016). Due to this, any of these approaches would prove effective to determine patients that would benefit from a care coordination team.
Conclusion

With the current condition of the United States health care system, it is necessary that institutions re-evaluate their current care models so that they are primarily focused on treating the patients while providing higher quality of care and efficient transitions between settings. Pay for performance initiatives are being explored by healthcare establishments to determine which will prove the most successful in providing for their patients; the best method has yet to be determined. One common theme among all these methodologies is coordination and collaboration of care. A key strategy being developed within health care systems is care coordination teams. These interdisciplinary teams are created with the understanding that their primary functions are to always to put the patient first; to have full transparency with the patient, caregivers, other providers, RNs, social workers and clerical staff; to realize the patient’s needs, wants and medical risks; and to overcome barriers to providing a high quality of care to the patient. Many institutions that have utilized interdisciplinary teams have seen significant benefits in terms of reducing readmission rates; providing a higher quality of care to the patients through increased communication, collaboration and transparency through all levels and settings in the healthcare system; improving the patient’s experience by providing education and addressing the various needs of the patient; and lastly reducing the cost per capital by eliminating avoidable readmissions, missed appointments and duplication in services. Care coordination teams in conjunction with other quality methodologies are a crucial means of achieving the triple aim of healthcare and one of the key solutions to our current healthcare crisis.
References


http://patientnavigatortraining.org/
### List of Illustrations

Table 1

**Care Management Framework**

<table>
<thead>
<tr>
<th>Care Management Components</th>
<th>Definition</th>
<th>Tools/Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identification</strong></td>
<td>Identification, stratification, and prioritization should be used to identify consumers at the highest risk who offer the greatest potential for improvements in health outcomes. Programs should incorporate clinical and non-clinical sources of information to identify consumers who will most benefit from care management.</td>
<td>• Health risk assessments&lt;br&gt;• Predictive models (algorithm-driven model that uses multiple inputs to predict high-risk opportunities for care management)&lt;br&gt;• Surveys (e.g., Patient Health Questionnaire 9, Short Form 12)&lt;br&gt;• Case finding (e.g., chart reviews, surveys)&lt;br&gt;• Referrals (from member, provider, community)</td>
</tr>
<tr>
<td><strong>Stratification</strong></td>
<td>Interventions should be tailored to meet individual consumer need, respecting the role of the consumer to be a decision maker in the care planning process. Interventions should be designed to best serve the consumer, be multi-faceted, improve quality and cost effectiveness, and ensure coordination of care.</td>
<td>• Evidence-based practices&lt;br&gt;• Interactive care plan, developed based on consumer-set priorities&lt;br&gt;• Multidisciplinary care teams&lt;br&gt;• “Go to” person&lt;br&gt;• Medical Home&lt;br&gt;• Physical/behavioral health integration&lt;br&gt;• Specialized patient engagement (e.g., self-management training)</td>
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<tr>
<td><strong>Prioritization</strong></td>
<td>Evaluation should include systematic measurement, testing, and analysis to ensure that tailored interventions improve quality, efficiency, and effectiveness. Careful and consistent evaluation will build the evidence base in terms of what works for complex and special need populations.</td>
<td>• Program evaluations&lt;br&gt;• Rapid-cycle micro experiments (e.g., continuous quality improvement, testing, and program adjustments)&lt;br&gt;• Representative measures of quality (e.g., HEDIS, CAHPS)&lt;br&gt;• Representative measures</td>
</tr>
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</table>
Payment/Financing

Payments/financing should be aligned to support improvements in care management by rewarding consumers and providers for participating in interventions/evaluations and establishing accountability for quality and cost

- Pay for performance at multiple levels (e.g., health plan, provider, and consumer level)
- Share in program savings (gain sharing)
- Case management/medical home payments


Table 2

*Hospital VBP Program Measures for FY 2016*

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure/Dimension Description</th>
<th>Domain</th>
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<tbody>
<tr>
<td>AMI-7a</td>
<td>Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>IMM-2</td>
<td>Influenza Immunization</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>PN-6</td>
<td>Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients</td>
<td>Clinical Process of Care</td>
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<tr>
<td>SCIP-Inf-2</td>
<td>Prophylactic Antibiotic Selection for Surgical Patients</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>SCIP-Inf-3</td>
<td>Prophylactic Antibiotics Discontinued Within 24 hours After Surgery End Time</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>SCIP-Inf-9</td>
<td>Urinary Catheter Removal on Postoperative Day 1 or Postoperative Day 2</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>SCIP-Card-2</td>
<td>Surgery Patients on Beta-Blocker Prior to Arrival Who Received a Beta-Blocker During the Perioperative Period</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>SCIP-VTE-2</td>
<td>Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to</td>
<td>Clinical Process of Care</td>
</tr>
<tr>
<td>Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey</td>
<td>Patient Experience of Care</td>
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</tr>
<tr>
<td>1. Communication with Nurses;</td>
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<tr>
<td>2. Communication with Doctors;</td>
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<td>3. Responsiveness of Hospital Staff;</td>
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<td>6. Cleanliness and Quietness of Hospital Environment;</td>
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<td>7. Discharge Information; and</td>
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<tr>
<td>8. Overall Rating of Hospital</td>
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</tr>
</tbody>
</table>

| CAUTI | Catheter-Associated Urinary Tract Infection | Outcome |
| CLABSI | Central Line-Associated Blood Stream Infection | Outcome |
| MORT-30-AMI | Acute Myocardial Infarction (AMI) 30-Day Mortality Rate | Outcome |
| MORT-30-HF | Heart Failure (HF) 30-Day Mortality Rate | Outcome |
| MORT-30-PN | Pneumonia (PN) 30-Day Mortality Rate | Outcome |
| AHRQ PSI-90 Composite | Complication/Patient Safety for Selected Indicators (composite) | Outcome |

| SSI | Surgical Site Infection: Colon Abdominal Hysterectomy | Outcome |

| MSPB-1 | Medicare Spending per Beneficiary (MSPB) | Efficiency |

Table 3
*Hospital VBP Program Measures for FY 2017*

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Description</th>
<th>Domain</th>
</tr>
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<tbody>
<tr>
<td>CAUTI</td>
<td>Catheter-Associated Urinary Tract Infection</td>
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<tr>
<td>CLABSI</td>
<td>Central Line-Associated Blood Stream Infection</td>
<td>Safety</td>
</tr>
<tr>
<td>CDI</td>
<td>Clostridium difficile Infection (C.difficile)</td>
<td>Safety</td>
</tr>
<tr>
<td>MRSA</td>
<td>Methicillin-Resistant Staphylococcus aureus Bacteremia</td>
<td>Safety</td>
</tr>
<tr>
<td>AHRQ PSI-90 Composite</td>
<td>Complication/Patient Safety for Selected Indicators (composite)</td>
<td>Safety</td>
</tr>
<tr>
<td>SSI</td>
<td>Surgical Site Infection</td>
<td>Safety</td>
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<tr>
<td></td>
<td>• Colon</td>
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<tr>
<td></td>
<td>• Abdominal Hysterectomy</td>
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</tr>
<tr>
<td>MORT-30-AMI</td>
<td>Acute Myocardial Infarction (AMI) 30-Day Mortality Rate</td>
<td>Clinical Care-Outcomes</td>
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<tr>
<td>MORT-30-HF</td>
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</tr>
<tr>
<td>MORT-30-PN</td>
<td>Pneumonia (PN) 30-Day Mortality Rate</td>
<td>Clinical Care-Outcomes</td>
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<tr>
<td>AMI-7a</td>
<td>Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival</td>
<td>Clinical Care-Processes</td>
</tr>
<tr>
<td>IMM-2</td>
<td>Influenza Immunization</td>
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<tr>
<td>PC-01</td>
<td>Elective Delivery Prior to 39 Completed Weeks Gestation</td>
<td>Clinical Care-Processes</td>
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<tr>
<td>MSPB-1</td>
<td>Medicare Spending Per Beneficiary (MSPB)</td>
<td>Efficiency and Cost Reduction</td>
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<tr>
<td>HCAHPS Survey</td>
<td>1. Communication with Nurses;</td>
<td>Patient and Caregiver-Centered Experience of Care/Care Coordination</td>
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<td>2. Communication with Doctors;</td>
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Table 4

*Hospital VBP Program Measures for FY 2018*

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Hospital Staff;  
4. Pain Management;  
5. Communication about Medicines;  
6. Cleanliness and Quietness of Hospital Environment;  
7. Discharge Information;  
8. Care Transition; and  
9. Overall Rating of Hospital


Appendix A

Case Study 1: “One State’s Approach to Care Coordination: Vermont’s Blueprint for Health”

“Blueprint for Health” is a statewide, public-private partnership in Vermont that provides physician practices with insurer-funded community health teams and access to real-time electronic information. “Originally authorized by the Vermont legislature in 2007, the program is designed to give existing primary care practices the support, infrastructure, and motivation needed to deliver coordinated, high-quality care in their current practice environment. Participating practices have access to community health teams that typically include nurse coordinators, behavioral health specialists, and social workers, but may also include health educators, nutritionists, exercise psychologists, and others” (Traver et al., 2013). Practices partner with these teams to identify high risk patients and to manage the care provided to these patients. Incentives are given to participating practices to meet quality initiatives set by the National Committee for Quality Assurance (NCQA). Initial examination of this system has shown positive effects on “improving health, patient experiences and bending the cost curve” (Traver et al., 2013).

This case study is available to view in its entirety at


Case Study 2: “Leading the Transition in Transitions”

Meritage ACO is the first healthcare organization in the North Bay Area of California to be designated a Medicare Shared Savings Program ACO by CMS. The Shared Savings Program was created to facilitate coordination and cooperation among providers to improve the quality of care for Medicare fee-for-service beneficiaries and reduce unnecessary costs. (Kmetz, 2015)
This 250 physician owned and run organization cares for 21,000 beneficiaries, with its service area covering 2,600 square-miles. Within this ACO, Meritage created care transition programs to stay competitive with other services in the area. These programs are comprised of all 250 physicians, both primary and specialists, Marin General Hospital, Novato Healthcare Center, San Rafael Healthcare & Wellness Center and Hospice by the Bay. To assist with these care transition programs an internal care management team was created, which included a medical director, primary care physician consultants, a care management director, nurse managers and patient care coordinators. This team focused on identifying high risk patients, and following those patients through the healthcare spectrum to increase quality of care during clinical setting transitions (Kmetz, 2015).

Throughout the process of development, the care team focuses on standardizing protocols and procedures and increasing communication while adjusting the culture to focus on quality and the continuum of care. Three fundamentals were embedded to aid in the success of this program: “care transitions coaching, complex care management and care coordination between settings” (Kmetz, 2015). Nurse care managers play the role of care transition coaches, providing discharge instructions, education and plans between settings to the patient to increase the coordination of care during transitions. The main objective is to always have a patient centered approach; to support this goal, the patient will always have the same transition coach regardless of time or setting. Meritage ACO instituted a care management program that encompasses a variety of different tools and techniques, including: the Coleman care transitions intervention, a patient activation management tool, motivational interviewing, brief action planning, the teach back method and utilization of evidence-based guidelines for treatment. Lastly, increased importance has been placed on the care coordination program to reduce duplications between settings to decrease inefficiencies in the system.

A number of methods were utilized to determine higher risk patients who were eligible for this program. Some were enrolled through the John Hopkins Predictive Model or outpatient or
self-referrals, but most were identified and referred by transition coaches during the patient’s inpatient stay.

Author of this case study, Andrea Kmetz (2015), states,

In the nearly two years since it was launched, the care transitions program has produced outstanding results. For Meritage ACO, the application of skilled nurse care management and mobile technology has resulted in a readmission rate of just 10.2% for its highest-risk patients—considerably below the national average. This improvement has placed Meritage ACO just shy of the 90th percentile for chronic heart failure, asthma, chronic obstructive pulmonary disease, and all-cause 30-day readmission avoidance.... Through a combination of skilled nurse care managers, a well-designed evidence-based program, and the use of a mobile care navigation network to enable patient-centric, team-based communications, Meritage ACO has succeeded in improving patient outcomes, lowering risk, reducing costs, and increasing patient satisfaction.

This case study is available to view in its entirety at http://psqh.com/january-february-2015/aco-care-transitions-coaching-management-and-coordination