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1. INTRODUCTION

“As we work on improving health care in America, we need to start where health starts, not where it ends. Only an estimated 10 to 15 percent of health care takes place in the medical care setting. We believe that it is important for the American public to understand and act on this information.”

Elijah Ellis was 83 years old and independently caring for his wife of 62 years in their home. His wife, Ruth, had been diagnosed with early-onset Alzheimer’s disease within the past year, and while her health was for the most part stable, his own was beginning to falter – a casualty of his denial of his own limitations and admirable commitment to take care of his wife “until death do us part.” Elijah’s mounting caregiver responsibilities and fatigue, increased bouts of interrupted sleep, and recent loss in appetite had made him prone to falls. After Elijah fell while getting out of bed, he was taken by ambulance to the Emergency Department (ED). Following the diagnosis of a fractured forearm, Elijah – his arm immobilized in a sling – was discharged to home with pain medication and orders to follow up with an orthopedic specialist in three days. While Elijah was content to be home with his wife, he found that his strength and mobility were not what they had been prior to his fall. He worried about his ability to prepare meals, provide care to his wife, and keep his follow-up medical appointment with the orthopedic specialist. Compounding Elijah’s worries, the medicine prescribed to help manage his pain made him lightheaded and nauseated. Three weeks later, Elijah fell a second time at home. This time, he was admitted to the hospital for a hip fracture, a more serious and life-threatening complication. Elijah’s experiences point to the need for and challenges of integrating health and community-based support services. During Elijah’s first visit to the ED, emphasis was focused intensely on his medical diagnosis and treatment. Missing from Elijah’s post-discharge strategy was a holistic, person-centered care plan to get him back home, living as independently and safely as possible.

A VEXING PROBLEM AND AN EMERGING SOLUTION

All too often, doctors and other hospital staff overlook the other aspects of caring for patients outside of the medical setting, pointing to the need for organizational models designed to create greater connectivity, alignment and collaboration within and between care environments. A growing body of research suggests that social determinants of health (SDOH) – environmental, social, functional, economic, cultural and psychological factors – influence health and wellness. In Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity, Harry J. Heiman and Samantha Artiga say, “Though health care is critical to health, research demonstrates that it is a relatively weak health determinant.” While efforts to address social determinants of health are evolving, our fragmented health system is woefully underequipped to address and remediate these needs.

Understanding the experiences of patients after discharge can assist clinical teams in designing more person-centered care transitions. Lack of communication, consultation and coordination can be a common occurrence experienced by patients having more than one health provider. As individuals move from one provider to another, the lack of care coordination between them can place persons at increased risk of disorganized transitions with negative consequences.
In *Transforming Care for Medicare Beneficiaries*, Harriet L. Komisar and Judy Feder say, “Fragmentation and lack of coordination in health care services are increasingly regarded as not only a source of frustration for patients, but also as both impediments to quality care and drivers for health care costs.” Indeed, research increasingly shows that fragmented care combined with poor coordination compromises the quality of care patients receive and increases the likelihood for negative outcomes, such as medication errors and preventable hospitalizations and emergency department visits. It is estimated that inadequate care coordination contributed to $25 billion to $45 billion in wasteful spending in 2011 due to avoidable complications and unnecessary hospital readmissions. Every year, roughly one out of five Medicare patients discharged from a hospital – nearly 2.6 million seniors – are readmitted within 30 days, at a cost of over $26 billion.

Compounding the systemic challenges of inadequate care coordination and unsustainable growth in healthcare spending is the steadily increasing number of people with chronic conditions. In 2000, 125 million people were living with at least one chronic illness; this number is expected to grow to 157 million by 2020. It is projected that half the population will have one or more chronic conditions by 2030.

Medicare beneficiaries – whose chronic conditions trigger complex medical needs and high costs – while an important focal point for transforming healthcare delivery, are neither the highest utilizers of services nor the Medicare population having the highest expenditures. The population for whom better care has the greatest potential to generate significant savings are those beneficiaries who have chronic conditions and multiple functional limitations that require long-term services and supports. In *Transforming Care for Medicare Beneficiaries*, Komisar and Feder make a compelling case that “effective health reform requires explicit initiatives to improve the care for people with chronic illness and functional limitations.”

Komisar and Feder say, “Less well recognized is that for many people with chronic conditions, complex medical needs are accompanied by the need for assistance from others with the routine activities of life – that is, by the need for long-term services and supports.” Many of these services and supports are based in the community, outside the confines of traditional healthcare settings. It is here, within the home and community environment, that great opportunities exist for healthcare and community-based organizations to evolve their business models to better serve the health and socioeconomic needs of individuals and deliver more effective population health management programs.

Organizations across the healthcare system have implemented quality improvement efforts to address shortfalls in care coordination so as to improve patient outcomes while also reigning in healthcare costs. The Affordable Care Act (ACA) has expedited incentivizing value-based initiatives in place of fee-for-service models by rewarding new models of care delivery that improve health outcomes, enhance patients’ experience and curb healthcare spending. In 2015, several health systems, health plans, consumer groups and policy experts established the Health Care Transformation Task Force, an industry consortium that has committed to shifting 75 percent of their business to a value-based model by 2020. In addition, it is expected that by 2018, half of all Medicare payments will be performance-based.

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1 David Jones, an assistant professor of health law, policy and management at Boston's School of Public Health, has suggested that "the shift from fee-for-service to value-based care is a movement that's happening independent of the ACA, or parallel to it." See Elizabeth Whitman, Will Value-Based Payment Initiatives Continue Under Trump? (Modern Healthcare, November 11, 2016).
2. DEMYSTIFYING CARE COORDINATION

As health systems of all sizes are looking for strategies to enhance the quality of patient care, cut costs and promote prevention (or prevent escalation of health conditions), care coordination has increasingly been recognized as a critical facet of high-quality healthcare delivery, and a national priority area for enhancing patient care across the lifespan. Care coordination represents a promising and effectual approach for integrating and optimizing care, especially among high-risk populations such as seniors whose complex and often multiple chronic conditions involve costly treatments and repeated hospitalizations.

The SCAN Foundation, an independent public charity that seeks to transform care for older adults, pinpoints older adults with both functional limitations and chronic conditions as the ideal target population for the ideation and testing of a care coordination model. Older adults are among the highest utilizers of medical care and supportive services, incur the highest healthcare costs, and frequently have poor health outcomes. A value-based care delivery approach represents an opportunity to build new and formidable partnerships centered on improving the health and quality of life of America’s homebound older adults, most of whom wish to age in place safely in their homes and communities of choice for as long as possible.

The first step to building a system of coordinated care is to fully understand the current state with respect to care coordination across all levels of healthcare and community support. In particular, it will be helpful to describe the current state of care coordination as it relates to both transition care (clinical to non-clinical) and among community-based service providers. This paper will examine definitions of care coordination; delineate the goals, principles and key elements of a care coordination strategy; and highlight care coordination models serving high-risk populations. Finally, this paper will glean insights from findings related to care coordination that may be instructive to shaping a care coordination model that can be scaled across populations and programs, and trigger innovative partnerships between community-based organizations and healthcare payers to provide quality care and services.

WHAT IS CARE COORDINATION?

Before highlighting the featured models of care, it may be useful to clarify key terms associated with care coordination. Regarding the use of terms, care coordination has often been used interchangeably with the terms care management and case management. However, the differences between these terms are now being looked at more closely as the health industry and information technology (IT) world consider opportunities for designing new value-based care offerings, as differences will affect or shape reimbursement implications:

CARE MANAGEMENT is defined as a set of activities designed to engage patients and their families in a collaborative process to assist them with more effectively managing medical conditions and psychosocial problems with the goal of improving the patient’s health status and reducing the need for future medical services. Care management – clinical in nature – takes place in the hospital or inpatient setting. It encompasses a more episodic and tactical approach to patient management. Care managers are generally nurses or social workers who work closely with patients and caregivers to assess health risks and needs, collaboratively develop care plans, and coach patients in self-care. Primary care physicians typically retain most control over managing the care of their patients. Because care management programs are not regulated or standardized, they can vary widely in scope and design. Comprehensive, well-structured care management programs are integral to achieving comprehensive care coordination.
**CASE MANAGEMENT**, as defined by the Case Management Society of America, is “a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual’s and family’s comprehensive health needs through communication and available resources to promote quality, cost-effective outcomes.” Case management focuses on an episode of care; less focus is placed on assessing the patient’s holistic needs across care settings. Like care management, case management programs can vary widely in scope and design due to lack of regulation or standardization.

**CARE COORDINATION** is not a new term. It has only become a high-priority strategy for optimizing healthcare systems within the past decade as it has gradually begun to show great potential to reduce costs and improve outcomes for patients in multiple healthcare settings. Capturing a concise and agreed upon definition of care coordination has been elusive. In their seminal and widely-published research, Ellen M. Schultz and Kathryn M. McDonald reviewed published definitions of care coordination and identified 57 unique definitions. The identified definitions ranged widely in scope with respect to persons served, included care processes, and settings. Their findings and synthesized themes validated the term’s evolving stature as a conceptual model for improving the effectiveness and efficiency of the healthcare system.

An assessment of the term *care coordination* for this paper yielded three definitions that currently appear to be more commonly referenced and used:

- The Agency for Healthcare Research and Quality (AHRQ) defines care coordination as “the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient’s care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care.” This definition appears to be most frequently cited as the current consensus definition.

- The National Coalition on Care Coordination (N3C) defines care coordination as a “person-centered, assessment-based interdisciplinary approach to integrating health and social support services in which a care coordinator manages and monitors an individual’s needs, goals, and preferences based on a comprehensive plan.”

- The National Quality Forum (NQF) defines care coordination as an information-rich, patient-centric “function that helps ensure that the patient’s needs and preferences for health services and information sharing across people, functions, and sites are met over time to achieve improved outcomes.”

There are many different definitions of care coordination. Most – like the definitions highlighted here – have at their core the same intent: the delivery of healthcare through teams of healthcare professionals working together to ensure that their patients’ health needs are being met, and that the right care is being delivered in the right place, at the right time and by the right person. It is important to highlight that care coordination, unlike care management, is associated with a longitudinal approach to providing holistic care to the patient in myriad settings and is contingent on multiple social determinants of health. Care coordination represents a broad strategy for enhancing the delivery of coordinated care that includes care management, case management and transitional care as complementary tools or tactics.
GOALS OF CARE COORDINATION

The AHRQ says the primary goal of care coordination is “to meet patients’ needs and preferences in the delivery of high-quality, high-value health care. This means that the patient’s needs and preferences are known and communicated at the right time to the right people, and that this information is used to guide the delivery of safe, appropriate, and effective care.”

Our healthcare system has multiple attributes that induce fragmentation of care. Failures in communication and care coordination facilitated by multiple care providers, limited use of electronic records, fee-for-service models that do not incent efforts to improve quality of care, and gaps in providing supports for community-based resources have perpetuated a healthcare system defined by fragmentation which can have tragic consequences for patients and their families.

The Institute of Medicine (IOM) regards care coordination as an instrumental strategy for optimizing healthcare, recognizing its potential to improve outcomes for all populations in all healthcare settings and to reduce cost. Building upon this guidance, in 2010, the Affordable Care Act (ACA) created the Center for Medicare and Medicaid Innovation and the Medicare-Medicaid Coordination Office to test new care delivery models with the goal of improving healthcare and reducing costs. For this reason, care coordination is a mandated element of the Patient-Centered Medical Home (PCMH) model to ensure that comprehensive care is organized across all elements of the healthcare system, including hospitals, home healthcare, specialty care and community services and supports. High-risk populations, as noted earlier, have been squarely identified as a critical locus for affecting the most striking or impactful outcomes through care coordination efforts.

A cornerstone of care coordination that shows much promise for mitigating fragmentation is the emphasis by care systems on achieving high-quality referrals and transitions. A referral takes place when a physician determines a patient requires additional care by a medical specialist or a community agency. A transition is when a patient’s overall care is transferred between healthcare entities – such as from an inpatient setting (e.g., a hospital) to an outpatient setting (e.g., a primary care physician) – or transitions between ambulatory care settings (e.g., primary care to specialty clinics).

Improving health outcomes when utilizing an inclusive care coordination approach requires seamlessly coordinating with all of the divergent service providers necessary to facilitate the patient’s interactions with the healthcare delivery system. This requires the establishment of an interdisciplinary team (IDT) and a designated “care coordinator.”

HALLMARKS OF CARE COORDINATION

Two important hallmarks, or organizing principles, of care coordination are its dual emphases on team-based and patient-centered strategies for improving quality of care. A review of care coordination literature related to these principles generated rich information:

TEAM-BASED APPROACH TO CARE. Care coordination programs have an interdisciplinary team (IDT) comprised of physicians, nursing staff, behavioral health specialists, social workers, pharmacists, insurance plans and community-based organizations pertinent to the unique healthcare conditions and needs of the patient. The combined expertise of the team augments the potential to deliver improved health outcomes for the patient.

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The anchor of each care coordination team is the designated “care coordinator.” The care coordinator, as detailed in *Medicare Spending by Functional Impairments and Chronic Conditions, Data Brief No. 22*, is “the single person accountable to the individual’s needs” whose critical role is to build a relationship with the individual that creates continuity over time and across providers.”

The appropriate person to coordinate care may vary from patient to patient. However, literature reviewed for this paper suggests that in most care coordination models, a nurse practitioner or other mid-level healthcare practitioner typically fulfills the care coordinator role.

In general, the care coordinator is often responsible for the following tasks:  
- Comprehensively screening and assessing the needs and preferences of the individual
- Engaging patients and their caregivers in the creation of a personal care plan that mirrors his or her healthcare needs and priorities
- Ensuring that patients and their caregivers understand their role(s) defined in the care plan and feel prepared to fulfill their responsibilities
- Identifying all of the challenges – psychological, social, financial and environmental – that affect the patients’ ability to follow treatments or maintain their health
- Assembling the appropriate team of healthcare professionals to respond to the patients’ needs
- Assisting patients in navigating an often complicated network of providers and insurance claims processes
- Ensuring patients’ electronic health records (EHR) include the most up-to-date information and are easily attainable to care team members and patients
- Facilitating timely communication between care team members
- Following up with patients periodically to ensure that their needs are being met and that their conditions and primary concerns have not changed

Care Coordination Central – a nonprofit organization providing community-wide integration of healthcare delivery across southwest Colorado through care coordination – identified and published the qualifications, work domains and tasks of all providers (skill-based, professional and leadership) involved in its care coordination system. There, the care coordinator job title is identified as a competency-based (professional) position. The required qualifications are a Baccalaureate or Master’s degree and being licensed as a registered nurse, social worker, psychologist or counselor.

Tasks associated with the care coordinator position at Care Coordination Central include:
- Assessing patient needs and goals
- Facilitating transitions in care
- Creating and managing a collaborative care plan
- Monitoring and following up with patients, including responding to changes in patients’ needs
- Alerting providers and other team members of changing client conditions and service needs
- Supporting patients’ self-management goals
• Linking patients to community resources
• Educating and counseling patients/families on medications, disease process and links between the social environment and health/well-being
• Managing risk-stratified patient panels and disease registries

Nurses are also integral to advancing care coordination outcomes – a stance noted in the American Nurses Association position statement, *The Nurse’s Essential Role in Care Coordination* – due to their role in facilitating communication and care delivery efforts between healthcare team members and with patients across diverse healthcare settings and populations. This viewpoint is also shared in a National Coalition on Care Coordination white paper, which credits the roles and benefits of nursing in the care coordination process and “provides evidence of the centrality of registered nurses to healthcare that is patient-centered, high-quality, and cost-effective.”

**PATIENT-CENTERED APPROACH TO CARE.** A second hallmark of care coordination is putting the patient at the center of their care and engaging them and their caregivers as partners in their care. This includes listening to, informing and involving patients in their care. Researchers from Harvard Medical School, the Picker Institute and the Commonwealth Fund identified eight principles of patient-centered care.

These principles include:  
• Respect for patients’ preferences  
• Coordination and integration of care  
• Information and education  
• Physical comfort  
• Emotional support  
• Involvement of family and friends  
• Continuity of transition  
• Access to care

The premise that patients’ views and experiences are integral to improving their health outcomes is underscored by the care coordinator’s role to elicit the voice of patients in their respective care plans. The care coordinator, working with the patient and the patient’s medical and community-based service providers, creates a comprehensive care plan customized to the patient’s healthcare needs and priorities. Throughout this process, providers strive to engage patients in the decisions that affect their health and allow patients’ voices to be the driving force behind the care they receive. In addition, when the patient’s needs change, the care plan is updated, and the care coordinator ensures that the patient feels that he or she can fulfill the responsibilities in the process and in the care plan.
3. PROMISING MODELS OF INTEGRATED CARE

Between 2011 and 2030, nearly 10,000 older adults in America will become eligible for Medicare every day. Delivering high-quality and appropriate care across different healthcare settings requires that planned and undertaken models be responsive to the myriad needs of targeted patient populations, the relationships and agreements between participating healthcare providers and organizations, and attributes of the environments in which they operate. There are multiple ways that care delivery programs can be organized, and variable components that can be assimilated into them to facilitate efforts to improve outcomes and reduce costs for patients with complex needs.

The demand for efficacious healthcare services that deliver quality and reduce costs has prompted a growing number of healthcare providers in traditional settings to forge innovative partnerships with community-based organizations. Value-based healthcare delivery programs that use evidence-based initiatives to deliver coordinated care, disease management, and other beneficial, prevention-based interventions in the home have been enabled through Medicare Advantage (MA). MA is a care coordination delivery model that is demonstrating success in making healthcare services more accessible to disabled and older beneficiaries covered by Medicare.

MA plans deliver Medicare Part A (hospital), Part B (physician) and Part D (outpatient drug) benefits to Medicare beneficiaries, and are paid by the Centers for Medicare & Medicaid Services (CMS) under a risk-adjusted monthly capitated payment. Enrollment in MA continues to grow. In 2018, over one-third of the 59 million Medicare beneficiaries received their benefits through MA, a trend that the Congressional Budget Office (CBO) projects will continue. By 2028, it is expected that 41 percent of Medicare beneficiaries – 32 million – will be enrolled in MA plans. Unlike Medicare fee-for service (FFS), MA plans have the flexibility to offer supplemental benefits such as vision, hearing, dental and wellness benefits.

In a regulatory change by CMS in April of 2018, CMS released a final rule revising the Medicare Part C and Part D regulations and reinterpreting Medicare’s uniform benefit requirement. Under this new interpretation, MA plans have more flexibility in benefit design and may: reduce cost sharing for certain covered benefits; offer specific tailored supplemental benefits; and offer lower deductibles for enrollees that meet specific medical criteria, provided that similarly situated enrollees – enrollees who meet the medical criteria identified by the MA plan for the benefits – are treated the same. Beginning in 2020, as a result of the Bipartisan Budget Act (BBA) of 2018, CMS may waive the uniformity requirement with respect to supplemental benefits provided to chronically ill enrollees. Under the BBA, CMS is required to determine the definition of supplemental benefits with respect to chronically ill patients that “have a reasonable expectation of improving or maintaining the health or overall function of the chronically ill enrollee and may not be limited to being primarily health related benefits.”

In a subsequent Memo outlining more details describing what would now be permitted as a supplemental benefit, CMS indicated that it would allow items and services such as adult day care services, in-home support services, home and bathroom safety devices and modifications, and non-emergent transportation to and from a physician’s office. These additions represent a changing landscape about how CMS views addressing beneficiaries’ overall healthcare needs, beyond traditional medical services. As CMS moves forward with defining what is allowable under the BBA, stakeholders should expect that MA plans will be able to provide more services, now that the law indicates the supplemental benefits “may not be limited to being primarily health related benefits.”
As outlined in Chapter 4 of the CMS Medicare Managed Care Manual, MA plans may provide meals for a period of up to two weeks either post-hospital discharge or for a chronic condition, such as cardiovascular disorders, chronic obstructive pulmonary disease (COPD) or diabetes.\textsuperscript{46} CMS will also allow plans to make value-based insurance design more widely available, so plans can waive cost sharing for individuals with chronic disease. These changes are significant and will provide opportunities to innovate and improve care for chronically ill persons in the years to come. As this broader array of care options becomes available, care coordination to efficiently and effectively manage that care – and all of the players involved – will become even more important.

Because care coordination has been embraced as a promising strategy to improve healthcare outcomes, enhance patient experience and reduce costs, care coordination efforts are generally focused on people who have or who are going to have significant contact with the healthcare system.\textsuperscript{47} For the purpose of this paper, care models developed and implemented to address the healthcare needs of high-risk, older adults are highlighted. Where possible, demonstration programs representative of the highlighted models of care are described, and their related research findings summarized. Insights and lessons gleaned from these care delivery programs can help inform the future work of organizations and healthcare systems that seek to improve the health and well-being of high-risk, older adults.

**THE BRIDGE MODEL**

For many patients, the transition out of the hospital and back to the community is fraught with numerous barriers. As a result, CMS has been focused on reducing hospital readmissions. Patients regularly incur challenges that thwart their ability to get and adhere to medications, obtain answers to their questions, follow up on medical appointments, and access services recommended by their providers. For this at-risk population, enhanced services are needed to facilitate and ensure patient stability in the post-discharge, community setting. The Bridge Model (Bridge) is a person-centered, social work-led, interdisciplinary model of care created to help older adults’ transition safely from hospital to home through intensive care coordination.

Bridge emphasizes collaboration among hospitals, community-based providers and the Aging Network to ensure a seamless continuum of health and community care across settings. The model “envisions a community where older adults, their caregivers, and other vulnerable populations experience seamless transitions across care settings.”\textsuperscript{48}

In 2006, three Chicago-based organizations engaged in the field of aging formed the Illinois Transitional Care Consortium (ITCC) and launched Bridge to support vulnerable, post-discharged Medicare beneficiaries – including the high-utilizer population that comprises nearly half of all readmissions – who had earlier shared their experiences as being confused, anxious and depressed after returning to their community post-discharge. The pioneering cross-sector agencies that launched Bridge included Rush University Medical Center’s Health and Aging Department, Aging Care Connections (a community-based organization in suburban Chicago) and the Health and Medicine Policy Research Group.\textsuperscript{49}

ITCC developed Bridge to facilitate and achieve better transitional support through care coordination, case management and patient engagement. Bridge is the only widely-replicated model of transitional care that is explicitly led by master’s educated social workers fulfilling a care coordinator role. Bridge Care Coordinators work closely with patients during and after their hospital stay, identifying issues of most concern to the individual and ensuring that essential services are arranged. Care Coordinators also perform “whole person” assessments in the hospital, in the individual’s home setting immediately following their discharge from the hospital, and a third time four weeks after discharge.\textsuperscript{50}
The Bridge model emphasizes care continuity and interdisciplinary teamwork, and consists of three essential parts. The components and their respective activities include:

1. **PRE-DISCHARGE PHASE.** Bridge social workers conduct a medical review for each referral; a database creates a daily list of at-risk patients who could benefit from Bridge. An interdisciplinary team (IDT) is engaged to connect an inpatient clinician, such as a hospitalist (physician whose primary focus is caring for hospitalized patients) or a resident with an outpatient provider like a primary care specialist. A case manager connects with a Bridge Care Coordinator via phone to identify the needs of the patient. A social worker meets with the patient to discuss the patient’s goals, ambitions, interests and family situation. This information is used by the social worker to craft a care plan that includes non-medical, personal motivators (or coaches) to incent the patient to change their behavior and activities to improve their health.

2. **POST-DISCHARGE PHASE.** The first post-discharge visit is completed by a social worker in person or by phone to conduct a bio-psychosocial assessment. The assessment identifies factors that may prevent the patient from transitioning successfully into their home and community. The care team continues to monitor the patient, learning what motivates them and solving for unmet needs for the next 30 days.

3. **TERMINATION PHASE.** Before the transitional care program ends, any remaining long-term services and supports are arranged, and patients are coached on accessing community resources and prepared for disengaging (being terminated) from Bridge.

By solving for both health and social-environmental needs, Bridge has triggered several beneficial outcomes, including dramatically lower readmission rates, increased patient attendance at post-discharge physician appointments, and decreased patient and caregiver stress. In addition, patients demonstrated a better understanding of medication management and had lower mortality rates.

Findings released by CMS showed that Bridge decreased readmissions by 24.7 percent in 1,390 patients served at Rush Medical Center from May 2012 through July 2013, resulting in $245,000 in CMS savings per Bridge Care Coordinator per year.

Bridge was recognized in 2010 as an evidence-based model of transitional care by the Administration on Community Living (ACL) and AHRQ. In 2012, ITCC joined with AgeOptions – the suburban Cook County Area Agency on Aging – and secured funding to initiate the Bridge Model through the Community-Based Care Transitions Program. In 2013, ITCC renamed itself the Bridge Model National Office (BMNO) to reflect the expanding scope of its partners. Thereafter, BNMO launched the Bridge Model Collaborative (BMC) to connect replication sites and provide administrators and clinicians a platform to promulgate best practices and learn from each other’s experiences.

Due to the model’s success and adaptability, Bridge has been replicated in more than 50 urban, suburban and rural sites in Illinois and other states. A health provider who collaborated with the Bridge Model team in 2012 said, “The Bridge program is promoting great collaborative work among professionals across the social service and healthcare delivery system, creating opportunities to identify cracks in the system one patient at a time.”
CARE MANAGEMENT PLUS (CM+)

Care Management Plus (CM+) is a healthcare delivery model designed to reduce mortality and hospital admissions for older adults with multiple chronic conditions. Created in 2001 by David M. Dorr, M.D., and his colleagues at Intermountain Healthcare – an integrated care delivery system serving patients in Idaho and Utah – CM+ was launched to improve the quality and coordination of care for high-need, high-cost patients and reduce healthcare costs. The program’s target population is comprised of Medicare patients and other populations with multiple chronic conditions. The model utilizes “continuum care managers” to improve patients’ diabetes management with the goal of reducing hospitalizations, unnecessary primary care use and healthcare expenses.

Between 2002 and 2005, the program was tested in seven primary clinics within Intermountain. Findings revealed that patients enrolled in the program, especially those with diabetes, had far fewer hospitalizations and lower mortality rates. The potential savings to Medicare from decreased hospitalizations were approximately $70,349 per clinic, per year for diabetic patients. The findings resulted in Dorr and Cherie P. Bunker, M.D., chief of geriatrics at Intermountain, receiving financial support from the Hartford Foundation in 2006 to replicate the program nationally. Branded as Care Management Plus, or CM+, the program has since been replicated in 420 primary care clinics throughout the country and covers three million patients.

Patients are identified for the CM+ program using disease identification, risk stratification and algorithms. Referral to the program within Intermountain and Oregon Health and Science University (OHSU) – a university partner of Intermountain’s – is inclusive and flexible by design.

CM+ care managers are generally nurses or social workers. Their training consists of a one-day, in-person workshop covering core competencies of care management, followed by eight weeks of online instruction, hosted by OHSU. The training curriculum covers: patient assessments, quality improvement, motivational interviewing, protocols and patient education for specific chronic diseases, care for seniors and caregiver support, connecting patients with community resources, etc. Each care manager within OHSU’s general internal medicine clinic has a caseload of approximately 200 patients. Care managers at Intermountain are affiliated with a primary care practice and have a caseload of approximately 250 patients. The estimated salary and training cost for a senior-level nurse care manager is $90,000 to $100,000 per year.

Care managers develop trust with patients and assess the patients’ needs, elicit their goals and priorities, and identify any barriers that may hold them back from achieving their goals. They also educate patients about their conditions and medications. Nearly half (47 percent) of interactions between care managers and patients involve developing connections to community-based programs.

CHENMED

ChenMed is a physician-led, primary care medical practice that delivers better health to MA beneficiaries. Focused on delivering affordable high quality service, detecting and managing high-risk diseases, and reducing hospital sick days, every ChenMed center resembles a “boutique” primary care practice with concierge-level customer service. Such concierge-style models of care are a rarity among the population served by ChedMed – low- to moderate-income older adults with multiple and major health challenges who often belong to diverse racial and ethnic groups.

Based in Miami, Florida, ChenMed operates over 50 practices in seven states (Florida, Georgia, Illinois, Kentucky, Louisiana, Pennsylvania and Virginia). It serves tens of thousands of older adults. Many ChenMed patients are dually eligible for Medicare and Medicaid. In addition, the vast majority of ChenMed’s patients are affected by five or more major and chronic conditions. For this reason, ChenMed’s delivery model focuses on increasing patient access to coordinated and preventative care, and addressing social determinants of health.
Integrated care teams are fully engaged in encouraging a high degree of interaction among providers and patients. The care team is comprised of three types of care managers: care coordinators who work outside of the practice; care facilitators who work with patients; and care promoters (Medical Assistants or Licensed Practical Nurses) who work with ChenMed clinicians on treatment adherence. The primary care physician fosters close ties with and directs the care of patients. Patients can communicate directly with their primary care physician by mobile phone during after-hours and can be seen by their primary care physician on-site as a walk-in at any time. This increased face-to-face time between ChenMed physicians and patients enables preventive care by facilitating earlier diagnoses and interventions. The smaller caseload of 450 patients per ChenMed physician means more face time with patients, on average 189 minutes per year (nine times longer than the national average of 21 minutes a year).

ChenMed provides door-to-door transportation for patients who otherwise would find it difficult to keep appointments. And, for patients who have limited functional ability and hazards in their living environment, ChenMed established a Mobile Integrated Healthcare (MIH) company in 2015 called Transitional Health Solutions (THS). THS paramedics, certified in critical and wound care, serve as a liaison between the patient at home and their ChenMed physician. Paramedics assess patients' health, nutrition and living conditions; conduct fall risk evaluations; and administer and deliver prescribed medications. The successful THS model is now moving toward offering remote monitoring and chronic disease management in patients' homes. In addition, ChenMed is piloting a meal delivery service in New Orleans to assist patients with accessing meals.

According to data released by ChenMed in 2017, ChenMed rates of Emergency Department visits were 33.6 percent lower than the average among Medicare beneficiaries in the counties where it serves older adults. ChenMed patients averaged 28 percent fewer hospital admissions than the average for county-relevant Medicare beneficiaries – a reduction of 25.7 percent (1,246 beneficiaries as compared to 1,677). In 2013, patients served by Chen Neighborhood Medical Center in Miami-Dade County had 1,234 fewer total hospital days per 1,000 than the CMS average of 2,420 per 1,000. In addition, patients served by Chen Neighborhood Medical Center in Broward County had 700 fewer hospital days per 1,000 than the CMS average of 1,961 per 1,000 persons.

Through novel payment arrangements with MA plans, ChenMed takes on 100 percent of the financial risk for its patients' total healthcare costs through value-based contracts. Since 2011, ChenMed has partnered with insurance providers like Humana and Independence Blue Cross to scale this model in markets across seven states. It has also received venture capital funding to support and expand its growth.

**GUIDED CARE**

Guided Care is a model of comprehensive healthcare provided by nurse-physician teams for individuals with multiple chronic conditions. Created by Johns Hopkins University researchers in 2001 and licensed to approximately 18 US healthcare delivery systems, the ongoing model features specially trained nurses who create care plans, educate and support patients and their caregivers, and coordinate care among providers using formal assessments and planning tools. The program’s target population is comprised of adults at risk of complications from multiple chronic conditions. The creators of Guided Care sought to improve upon telephone-supported care management programs, which are relatively inexpensive but have often been shown to be inadequate for patients with multiple major and chronic conditions. The Guided Care model is described by its founders and users as “relatively simple and systematized.”

The model entails a structured process for nurses to assess patients’ needs, create care plans, and instruct patients and their caregivers on how to manage health conditions. Nurses complete a six-week, online certified training course and work with patients identified through primary care practices. Nurses monitor the progress of patients, direct transitions among care settings and provide referrals to community resources.
The Guided Care program license provides program sites with tools that can be customized to meet the needs of different organizations. Resources include: an assessment form and health history questionnaire; guides for creating patient-friendly action plans and detailed plans for providers; a caregiver interview form to assess how caregivers manage their own needs; and a survey instrument for patients and clinicians to evaluate the program’s effectiveness.

The Guided Care licensed program is offered through Johns Hopkins. Program sites with ten or fewer participating nurses pay $3,000 for three years; sites with ten to 49 Guided Care nurses pay approximately $10,000 for three years. Each nurse has a caseload of approximately 50 to 60 patients.

Findings from a control trial conducted between 2006 to 2009, with 904 patients at eight primary care practices in the Baltimore-Washington, DC area, suggested that the approach improved the quality of care and reduced the use of home healthcare. However, it did not reduce the use of other high-cost services. A subset of patients (365) did have a significant reduction in admissions to skilled nursing facilities and days spent there. The model’s emphasis on promoting team care, preventative care and early intervention is credited with driving the reduction in admissions.63

HEALTH QUALITY PARTNERS (HQP)

Health Quality Partners (HQP), founded in 2001, is a patient-centered, quality improvement program in Doylestown, PA, committed to enhancing the experience of healthcare for patients, their families, and providers via a community-based model of advanced care management. HQP identifies high-risk Medicare patients who have at least one chronic illness and have had one hospitalization within the past year. To help prevent the onset and progression of chronic disease, identified individuals are enrolled into a community-based nurse care management program that utilizes evidence-based interventions designed to reduce cardiovascular risks for persons with chronic health conditions.

HQP sends a trained nurse to visit program participants on a regular basis (generally weekly) whether the individual is in need of care or not, a rare feature in most healthcare delivery programs. Nurses conduct comprehensive in-home assessments, make frequent in-person visits, instruct group education and behavior change classes, and facilitate coordination of care between providers.

In 2002, HQP participated in the Medicare Coordinated Care Demonstration, a project sponsored by CMS. Of the 15 programs involved in the demonstration project, four improved patient outcomes without increasing costs. Only HQP improved patient outcomes while cutting costs.

Following the end of the CMS demonstration, HQP initiated a similar program for Aetna MA enrollees. Benefits for participants enrolled in the program include consultations with a nurse care manager, customized health assessments, access to healthy living workshops and support with managing health conditions. Participants are identified for the program by referrals from physicians’ offices treating Aetna MA members. HQP identifies plan members in need of additional services due to chronic illness and prioritizes outreach to those members with the highest risk. Nurses coordinate with Aetna care managers to discuss patient care options. Through the HQP community partnership with Aetna, hospitalizations have been lowered 17-20 percent and costs have been decreased 16-18 percent.64

According to an independent analysis by Mathematica, an independent consulting firm, HQP has reduced hospitalizations by 33 percent and cut Medicare expenses by 22 percent.65 HQP’s emphasis on continuous nurse-to-patient contact is credited for achieving these significant outcomes.66
IORA HEALTH

Iora Primary Care is a primary care doctor's office for adults on Medicare. Launched in Boston, MA in 2011, Iora Primary Care has practices in seven states and expects to double the number of patients served in 2018.

Iora Primary Care partners with insurers that agree that primary care is the key to improving health; most partnerships are through MA plans. These partners pay a fee for each patient which is a higher rate than primary care's typical cost and allows Iora to have smaller panel sizes, give patients more time with their provider and care team, and offer more personalized care. This way of care enables team members to help patients stay healthy through care coordination that manages conditions, slows disease progression and incentivizes behavior change for better health outcomes.

The Iora Primary Care model principles, as outlined by the Better Medicare Alliance, are “a supportive care team, a capitated payment model, and technology that supports the model.” The company’s proprietary electronic health record (EHR) platform, Chirp, was custom-built and is constantly being refined.

Fully integrated teams comprised of physicians and nurse practitioners, nurses, health coaches, operations assistants and behavioral health specialists, provide care coordination to patients before, during and after a sick visit or episode. A typical Iora doctor cares for around 600-900 patients, half the number of patients seen by most primary care doctors. Health coaches manage a few hundred patients. The team focuses on enhancing the patient experience by leveraging the model’s unique corps of health coaches who engage with patients inside and outside of medical offices, sometimes conducting “walking visits” with patients in parks or nearby markets. Health coaches build relationships with patients, which enable patients to discuss their medical conditions, health goals, challenges and fears that are, in turn, addressed in their individual plan of care. Care team members engage with patients and their family caregivers via email, texting and video.

Iora Primary Care is the consumer brand of Iora Health. In 2016, Iora Health was awarded the John Q. Sherman Award for Excellence in Patient Engagement at the National Patient Safety Foundation's annual congress. Patients overall see a 40 percent decrease in hospitalizations and a 20 percent decrease in ER visits while also reporting high rates of satisfaction; Iora Health patients report an average 90 Net Promoter Score.

Many hospital systems that are experimenting with new models of care delivery are nonprofit in nature and have obtained funding from the federal government and large health care foundations. Iora is predominantly a venture-backed company, an approach that offers a redesigned care and payment model.

PROGRAM OF ALL-INCLUSIVE CARE FOR THE ELDERLY (PACE)

The Program of All-Inclusive Care for the Elderly (PACE) is a Medicare and Medicaid state option that provides community-based care and services to people 55 years of age and older. PACE participants must be certified by the state in which they live to be in need of nursing home-level care. The program offers a comprehensive suite of services to persons with functional limitations who require long-term services and support in order to live independently at home. The majority of PACE participants are low income and dual-eligible (enrolled in both Medicare and Medicaid) with disabilities and/or limitations with activities of daily living (ADLs).

PACE provides adult day care, meals, nutritional counseling, social services, transportation, social work counseling, primary care services, hospital care, prescription drugs, home care, physical therapy and caregiver respite, among other services. PACE participants have a team of healthcare professionals; nurses generally administer assessment forms and health history questionnaires, create patient-driven care plans, educate patients and their caregivers about managing health conditions and refer persons to care providers and specialists in the community.

Net Promoter Score is a management tool used to gauge a customer's overall satisfaction with a company's provided service or product and the customer's loyalty to the brand.
PACE has been evaluated in several cross-sectional time series and cohort studies over multi-year periods. Findings from research studies revealed that PACE participants had fewer hospital admissions, and fewer total and preventable emergency department visits, compared with a community-based comparison group in which medical care was provided by independent primary care physicians.

In addition, PACE participants had reportedly fewer unmet needs for assistance in bathing, dressing and with mobility. Interestingly, PACE participants had more nursing home admissions, a factor thought to be attributed to PACE’s use of nursing homes for sub-acute, post-acute and respite care.

**OTHER PROMISING COMMUNITY-BASED MODELS**

Recognizing the importance of addressing social determinants of health, healthcare organizations (HCOs) are beginning to explore developing partnerships with community-based organizations. One such example is the evolving relationship between Meals on Wheels America and Aetna.

Meals on Wheels is a key provider of home- and community-based services, delivering meals and nutrition education, as well as other services, to approximately 2.4 million older adults on an annual basis. Meals on Wheels services, delivered through 5,000 community-based senior nutrition sites across the country, promote food security, social inclusion, a safe living environment, and the physical health and well-being of high-risk, homebound older adults.

The Meals on Wheels network is perfectly positioned to partner with healthcare to serve high-risk individuals in their homes and communities. Meals on Wheels can be distinguished from other community service programs by the unique and trusted relationship its local programs have built with clients and the regular access they have to the home, as well as the relationships they have developed with other community service providers. Meals on Wheels programs provide more than nutrition services; they also provide regular safety checks, social companionship and the ability to identify changes in condition warranting attention, as well as access to myriad other community-based services that may be essential to the overall health and well-being of at-risk older adults. Meals on Wheels providers cross the threshold into these older adults’ homes every day and provide the regular “eyes and ears” on the senior, identify and follow up on any changes of condition, and remediate safety hazards in the home.

Meals on Wheels America and Aetna are collaborating to design and test an approach to care coordination for Aetna members and, if successful, to replicate and scale the approach across the country. Fran Soistman, Aetna Executive Vice President and Head of Government Services, said, “More than three quarters of older adults have at least two chronic conditions. Having a reliable support system in place to observe their health on a regular basis can be just as important as the care they receive at the doctor’s office. Our work with Meals on Wheels America will make us better connected with seniors in their homes and communities, and enable us to establish truly meaningful relationships that can improve the lives of this vulnerable population.”

The Meals on Wheels America and Aetna collaborative care coordination project entails a technology-enabled approach to fully integrate care coordination. The project was tested in three pilot sites – Meals on Wheels for Greater Houston (TX), Meals on Wheels of Wake County (NC) and Neighborly Care Network (FL).

The Meals on Wheels America and Aetna patient-centered and locally-based approach to coordinating care for Aetna members relies on a strong partnership between Aetna care managers and Meals on Wheels programs. Sherrie McNutt, Head of Case Management Operations at Aetna, sees equipping Aetna members with a person-centered, transitional care plan following their discharge from the hospital to be an essential tool to staying off readmission patterns that she has observed among the Medicare population, as well as preventing the onset of other health complications.

In this project, Meals on Wheels providers deliver a nutritious meal five days per week to Aetna members.
referred by Aetna care managers. Each visit includes socialization and a safety check. An initial in-home assessment provides basic information about the overall status and needs of the Aetna member. At each meal delivery, the Meals on Wheels volunteer or staff person uses a mobile application to document any changes in condition and concerns they may have about the Aetna member and/or their environment. These alerts are triaged by a Care Coordinator at the local Meals on Wheels provider who follows up with the Aetna member, evaluates the root cause of the alert and makes referrals to additional services as needed. This information is shared with Aetna care managers to ensure they are able to manage the overall care of members.

The program will be evaluated to assess the effectiveness of the referral process, client satisfaction, provider satisfaction and change of condition monitoring and issue remediation. The frequency of emergency room visits and hospitalizations among those receiving this service will also be tracked. The learnings from this pilot will inform the scaling of this program. If effective, this person-centered model of care will provide a holistic approach to delivering care to Aetna members that can be scaled across Aetna member populations and a range of Meals on Wheels providers over time.

The care delivery models described in this paper – designed to improve outcomes and reduce costs for high-risk
4. LEARNINGS - KEY ELEMENTS OF CARE COORDINATION

patients with complex needs – share several key attributes worth highlighting. These include: risk stratification, an interdisciplinary team-based approach, coordination and person-centered care.

RISK STRATIFICATION

Older adults with chronic conditions and multiple functional limitations have difficulty adhering to treatment recommendations and coordinating care among specialists. As a result, this at-risk population has a higher share of preventable inpatient admissions and emergency department visits. Models highlighted in this paper target individuals most likely to benefit from intervention. Stratifying services based on patients' need and investing in post-hospital enhanced services or community-based supports that facilitate and ensure stability in the community setting can be far less costly than recurrent emergency department visits and hospitalizations. Establishing an algorithm to stratify patients according to risk is critical to the success of care models. Care coordination is typically built in response to an event – an individual's fall, heart attack or stroke, for example. Risk stratification provides a powerful tool to identify persons at risk for negative outcomes and engage them preemptively in their community-based environment to avert use of avoidable medical services, and maintain and maximize function.

Risk stratification should be iterative; care coordination provided to an individual should correspond to their changing needs. Both upstream and downstream risks can be addressed through a care coordination approach that addresses both the needs of older adults who have multiple chronic conditions and a history of hospitalization, as well as the needs of persons who may have an early diagnosis and have fewer needs, but who should be monitored to prevent the onset of more serious health complications.
INTERDISCIPLINARY, TEAM-BASED APPROACH

The interrelated parts of healthcare and connections among healthcare providers and patients are growing and becoming more complicated. Patient “handoffs” between clinicians and across different care settings are associated with preventable adverse events due in part to inadequacy of communication among clinicians. A high-performing, interdisciplinary team is widely recognized as instrumental to accelerating a more patient-centered, coordinated and effective healthcare delivery system.

Care delivery models featured in this paper employ responsive, multidisciplinary teams that deliver a wide scope of services to patients with complex needs. Team composition most commonly includes physicians, care managers (nurse practitioners or physician assistants), case managers (registered nurses) and social workers. Team members have defined roles and scopes of work. Involving social workers as members of the collaborative care team is an essential feature of the reviewed care delivery models. Team members receive ongoing training in required competency areas that include strategies and tactics to effectively care for patients living with chronic conditions and functional limitations. Strong clinical and organizational support established by the interdisciplinary teams helps deliver effective coordination of care.

COORDINATION

Many of the models of care delivery described in this paper designate a care coordinator or care manager to serve as the main point of contact between the care team and patient. As an essential member of the interdisciplinary team, the care coordinator (or care manager) fosters a trusting relationship with the individual and creates a bridge between medical providers and community support services. The care coordinator (or care manager) orchestrates care among the patient and their provider(s) to ensure that the transfer of care plan information is timely and secure, and that transitions from the hospital to the community setting (home) is seamless. The care coordinator (or care manager) organizes patient care – both information and activities – with the patient, family and all care providers, placing the patient’s care wishes at the center of their care plan.

The use of health information technology among care coordinators (or care managers) is essential to ensuring that quality care is driven by data measuring day-to-day engagements with and interventions for patients. Electronic health record systems (EHRS) enable care coordinators (or care managers) and clinicians to eliminate gaps in services and prevent duplicative services to provide quality, evidence-based care to their patients. Health information software is evolving to help “providers identify problems, respond to trends, and decide how to optimize available resources to effectively manage multiple care processes.”

The care coordinator (or care manager), a knowledgeable facilitator familiar with a healthcare organization’s systems and community support services, connects the patient and their caregivers to appropriate providers. The care coordinator (or care manager) engages all necessary providers and assists the individual with navigating the healthcare system to ensure continuity in their care plan implementation. Care coordination can occur in hospitals, primary care physician offices (the base for most outpatient care), and in the home. A preferred approach by many programs is combining office-based care with home- or community-based care.

Effective models of care coordination are relationship-driven; the quality and frequency of interactions between care providers (nurses, care coordinators, care managers, physicians and patients are likely strong influencers on or predictors of program success.
A growing body of evidence suggests that addressing social determinants of health can improve outcomes for all populations in all healthcare settings, especially those who need a full spectrum of medical care and social services. Placing the patient front and center of their care plan ensures that the care planning process reflects the goals and preferences of the person over a continuum of care in multiple settings. This person-centered approach entails conducting a comprehensive assessment of a patient’s health risks and needs, engaging the patient and family members in creating a personalized and standardized plan of care, fostering ongoing, in-person engagement with the patient, and coaching the patient in self-management techniques (e.g., self-care, medication management, etc.). Advocating “upstream” prevention and health promotion is a means of helping the individual avoid or delay “downstream” illness and utilization of healthcare services.
Several structural principles deemed instrumental to establishing a successful care coordination model by the SCAN Foundation that were not clearly evident or observable in the models reviewed here include integration of services, alignment of financial incentives, the existence of compatible infrastructures, and the ability to measure outcomes and cost savings.\textsuperscript{72}

ALIGNING FINANCING AND PAYMENT METHODS [SUSTAINABILITY]

The SCAN Foundation suggests that care coordination is optimized in systems that align financial incentives through a single payment stream to cover all needed services and resources and is flexibly allocated based on patients’ individual needs.\textsuperscript{73} Financial alignment in this context represents the degree to which financial payment incentives of collaborating organizations are aligned to achieve the Triple Aim.

Identifying effective financing methods and payment models that buttress integrated care delivery partnership would be an important contribution to this evolving field of work. In addition, identifying and sharing promising ways for providers to move from fee-for-service to value-based systems would be beneficial.

With respect to identifying funding approaches to more rigorously expand strong, sizeable and effective care coordination models, investigating the bundling of funding streams across state, CMS and health plans for the development and implementation of “top-tier,” evidence-based programs could be instructive.

COMPATIBLE INFRASTRUCTURE/INTEGRATED INFORMATION TECHNOLOGY

Compatible infrastructures – such as information technology (IT) systems to support broad information sharing, seamless financing and billing, and integration of electronic health records (EHRs)\textsuperscript{74} – can optimize efficiencies and prevent duplication of services, which help reduce costs. Data- and information-sharing, as well as metrics reporting, is compromised when organizations have incompatible technical platforms and incur challenges integrating data from different sources. Programs highlighted in this paper and other care coordination models reported having various levels of difficulty establishing IT interoperability across inpatient and outpatient settings. EHR systems (to assess patients’ health risks, reduce duplication, facilitate communication and provide feedback to providers) and IT interoperability are essential to supporting integrated care across the care continuum. Examples of effective strategies and practices for establishing compatible infrastructures in successful care models would help foster the sustainability and replication of promising care models.

According to HealthITAnalytics.com, “Healthcare organizations are exhibiting a growing appetite for patient management tools to support population health management and outcomes-based care strategies.”\textsuperscript{75} As a result, healthcare organizations are looking more closely at how to identify the differences between care
management and care coordination as each requires its own health IT functionalities. Care management tools, for example, “depend more heavily on having access to clinical data to ensure that providers can make informed, proactive decisions about an individual’s acute needs.” Care coordination tools are dependent on access to data about a patient’s clinical status and their social determinants of health. In addition, care coordination tools must also communicate with external members of the care team (behavioral health, home care, long-term care and mental health providers) to ensure that patients’ concerns are addressed holistically.

Software functionalities affiliated with care management include:

- Patient program enrollment (based on risk scores)
- Care team administration (shows how many patients are assigned to each team, status of patients’ preventive care progress and disease management, care managers handling high-risk populations, etc.)
- Provider alerts and notifications (tied to specific events, interventions or tasks)
- Patient engagement and self-management tools
- Transition support and discharge planning (the weak link in the current generation of care management tools, limiting providers’ abilities to coordinate care across a continuum of settings)

Software functionalities affiliated with care coordination include:

- Patient cohort management (e.g., risk stratification and disease categories)
- Evidence-based content libraries (curated clinical content and decision support tools)
- Referral management
- Support for community-based resources (few software tools permit users to access information about social programs and services)

Interoperability among care management and care coordination software functionalities is greatly needed to help providers bridge the gaps between the clinical care environment and the home- and community-based environments to improve patients’ health and well-being.

**QUANTITATIVE EVIDENCE**

While many of the profiled programs have had success with improving quality of care, not all achieved cost savings. Although the primary goal of care delivery should be to improve the health of patients, further research into barriers to and opportunities for achieving cost savings would be valuable. Quantitative evidence on program outcomes would provide a foundation for assessing the return on investment for integrating services. Replicating and scaling promising care models could be favorably advanced where quantitative evidence on the efficacy of program interventions is demonstrated and more widely disseminated.
6. CONCLUSION

Designing and implementing a care coordination strategy that facilitates and ensures stability in the post-hospital setting has the potential to improve health outcomes for patients and increase patient satisfaction. It also has the potential to decrease the number of emergency room visits, reduce hospitalizations and diminish unnecessary tests.

Reorienting our care delivery system from fee-for-service to value-based will require a significant cultural shift toward patient-centered, team-based care. Essential to driving this shift is the realization that relationships (patient-centered and team-based) propel coordination, and collaboration between community-based organizations and healthcare organizations can accelerate their capacity to align with market changes focused on the Triple Aim.

As organizations like Meals on Wheels America and Aetna invest in ways to improve care coordination for high-risk individuals, we are likely to learn more about approaches that hold the greatest promise for improving health outcomes and reducing healthcare costs that can be scaled through existing networks.
Players in the care coordination delivery system and those poised to have instrumental touch points within a care coordination model include, but are not limited to, the following organizations and programs:

**ACCOUNTABLE CARE ORGANIZATIONS (ACO).** Accountable Care Organizations (ACO) are defined by the Centers for Medicare and Medicaid Services (CMS) as “groups of doctors, hospitals, and other health care providers who come together voluntarily to give coordinated, high-quality care to their Medicare patients.” ACOs develop financial incentives to coordinate a patient’s care across settings such as an emergency department or hospital, a physician’s office, nursing home or rehabilitation facility. If a patient’s healthcare quality is maintained or improved and healthcare costs are below what would otherwise be expected, providers that have met the standards are able to retain a share of that savings.

**AREA AGENCIES ON AGING (AAA).** The National Association of Area Agencies on Aging (n4a) is comprised of 622 Area Agencies on Aging (AAA) and 256 Title VI Native American aging programs. AAAs and their Native American aging program counterparts create, coordinate and deliver services to more than 8 million older Americans and their caregivers each year. Established under the Older Americans Act (OAA) in 1973, AAAs respond to the needs of older Americans 60 years of age and older in every local community, providing a range of services that help older adults age in place in their homes and communities of choice. AAAs offer several programs to assist older adults with living independently and safely in their homes and communities. Nurses and social workers provide evaluations of individual needs and circumstances, conduct comprehensive health assessments, and help older adults and their caregivers develop individual care plans which may include personal care, nutrition, and caregiver respite. Monitoring of individual care and periodic reassessment of care plans is also provided.

**HOME- AND COMMUNITY-BASED SERVICES (HCBS).** Home- and community-based services (HCBS) provide opportunities for Medicaid beneficiaries to receive services in their home and communities to delay or prevent institutionalization. HCBS provides older adults and caregivers resources on wellness programs, nutritional support, health and aging education programs, counseling services, and assistance with housing and home safety and finances. Approximately 20 percent of older adults aged 60 and above receive community-based services.

**MEALS ON WHEELS – A POTENTIAL MODEL FOR COORDINATING CARE.** Meals on Wheels is a key component and provider of home- and community-based services, delivering meals and nutrition education to approximately 2.4 million older adults on an annual basis. Meals on Wheels services – delivered through 5,000 community-based senior nutrition programs across the country – promote food security, social inclusion and the physical health and well-being of high-risk, homebound older adults.

The Meals on Wheels network, as a principle provider of HCBS, is perfectly positioned as a conduit for providing a continuum of care. Meals on Wheels can be distinguished from other community service programs by the unique and trusted relationship its local programs have built with clients and the regular access they have to the home, as well as the relationships they have developed with other community service providers. Meals on Wheels programs provide more than nutrition services; they also provide regular safety checks, social
companionship and the ability to identify changes in condition warranting attention, as well as access to myriad other community-based services that may be essential to the overall health and well-being of at-risk older adults. Meals on Wheels providers cross the threshold into these older adults’ homes every day and provide the regular “eyes and ears” on the senior, identify and follow up on any changes of condition, and remediate safety hazards in the home.

For coordination of care that is not considered a part of the formal case management for Meals on Wheels clients, care coordination is a loosely defined service dependent on the local Meal on Wheels program resources and capacity. For programs that conduct an in-home assessment, eligibility for meals and the need for other possible supportive community services is determined with a maintained client data file. However, several states have elected to strengthen a single point of service entry, focused on the Area Agency on Aging (AAA)/Aging and Disability Resource Center (ADRC). For these states, the Meals on Wheels program may only have access to client delivery information, and all coordination of care is provided to clients through the AAA/ADRC.

**HOSPITAL DISCHARGE PLANNERS.** Discharge planning entails creating a customized discharge plan for the patient prior to his or her leaving the hospital. Discharge planners assess patient needs and work with individuals to develop a plan that can help them manage their illness or health condition, and promote their overall health to improve patient outcomes and contain costs. Most discharge planners are nurses or social workers, according to the Family Caregiver Alliance.

**HOME HEALTH AGENCIES.** Home healthcare provides a wide range of healthcare services in the home to treat illness or injury. A physician’s referral is typically required to initiate home health services. According to the Medicare Payment Advisory Commission (MedPAC), there are approximately 12,350 home health agencies in the US, more than double the number of hospitals. Home-based care is positioned to serve three essential roles in a redesigned (value-based) healthcare delivery system: partnering with primary care, providing post-acute and acute care at home, and partnering with home- and community-based long-term care providers.

**MEDICAID HEALTH HOME.** The Medicaid Health Home program coordinates healthcare and social services for Medicaid and Medicare-Medicaid dual eligible individuals with two or more chronic conditions, including mental and behavioral health. This program was created by the Affordable Care Act (ACA) to allow states to use Medicaid funds to enhance coordination of care for high-need, high-risk populations. This model integrates primary, acute and behavioral health services, and links patients and families to non-medical services. This model seeks to lower emergency department use, hospital admissions and reliance on long-term care facilities.

Key components of the model are:

- Comprehensive care management
- Care coordination
- Health promotion
- Comprehensive transitional care, including follow-up from inpatient and other settings
- Patient and family support
- Referral to community and support services
PATIENT-CENTERED MEDICAL HOME (PCMH). The Patient-Centered Medical Home (PCMH) is a provider-based model for providing patient care that is comprehensive, patient-centered, coordinated, accessible and high quality. In this model, care coordination can be implemented within a primary care practice. Characteristics of the PCMH model are:

- A strong relationship between each primary care physician and patient
- Coordination between the physician and the practice team of clinicians
- Coordination of the patient’s care across different healthcare settings

MANAGED LONG TERM SERVICES AND SUPPORTS (MLTSS). Managed Long Term Services and Supports (MLTSS) encompasses the delivery of long term services and supports through capitated Medicaid managed care programs. States are increasingly using MLTSS for augmenting home- and community-based services. MLTSS provides states with a broad and flexible range of program design options to promote community inclusion and optimize quality of provided services. The ACA has generated great interest among states desiring to explore how the ACA and MLTSS intersect and catalyze new opportunities to deliver MTSS in communities.

TRANSITIONAL CARE PROGRAMS. Patients undergoing care transitions, especially when receiving care in multiple settings following an illness, are more apt to be vulnerable and could benefit from care coordination interventions. If plans are not implemented to assist patients and their families with navigating these transitions, duplication of service, inappropriate or conflicting care recommendations, medication errors, and higher costs of care can result.

Medicare Innovation Models for alternative payment programs rely heavily on managing care transitions. Building a high-quality, post-acute network supportive of these models can improve care continuity and coordination. Transitional care programs manage the process in which a patient’s care shifts from one setting of care to another. In most cases, these programs focus on the transition from hospital-based care to community-based care with the goal of preventing readmission to the hospital. Patients work alongside care providers to create a comprehensive discharge plan. Upon being discharged from the hospital, care providers follow the progress of patients for four to six weeks.

VISITING NURSE ASSOCIATIONS OF AMERICA (VNAA). The Visiting Nurse Associations of America (VNAA) is a national organization dedicated to advancing the quality and value of home-based care. VNAA’s services include advocacy, education and collaboration. In April of 2017, VNAA launched ElevatingHOME, a 501(c)6 organization that bridges America’s home-based care providers (nonprofit and for-profit) to advocate for high-quality, affordable home care. ElevatingHOME aims to:

- Demonstrate the role of home-based care in meeting patients’ healthcare needs at home
- Create and disseminating best practices for home-based care
- Establish a high standard of operational integrity
- Elevate the level of support for patients and families served through public-private, foundation, academic and legislative support
- Advance financial models to support a strong home-based care industry while simultaneously delivering value along the broader healthcare continuum
VISITING NURSE ASSOCIATION (VNA). The Visiting Nurse Association is a nonprofit home health agency that offers a wide range of services to help older adults live in their homes and communities of choice. Nurses have, on average, ten years of experience, with three to five years in home health. Provided services include:

- Home health aide
- Intravenous (IV) therapy
- Medical social work
- Mental health
- Nutrition
- Rehabilitation therapies
- Skilled nursing
- Telehealth home monitoring
- Wound care
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