



# Developing Care Management Programs to Serve High-Need, High-Cost Populations

**INSIGHTS FROM THE  
HEALTH CARE TRANSFORMATION TASK FORCE**



# Who We Are

The **Health Care Transformation Task Force** is an industry consortium that brings together patients, payers, providers, and purchasers to align private and public sector efforts to clear the way for a sweeping transformation of the U.S. health care system. We are committed to rapid, measurable change, both for ourselves and our country. We aspire to have 75% of our respective businesses operating under value-based payment arrangements by 2020.

## Our High Cost Patient Work

The **Improving Care for High-Cost Patient Work Group** identifies and evaluates key areas that drive costs for patients in health care systems. We address risk stratification of high-need, high-cost patients and describe best practice initiatives that perfect handoffs and improve care coordination, assuring person/family-centered care, better outcomes, and lower costs. This includes patients near the end of life, patients who undergo high-cost events, and patients with multiple chronic illnesses including behavioral health issues that challenge traditional disease and case management. The High-Cost Patient Work Group’s guiding principles are as follows:

1	Health care costs are highly concentrated in a very small patient subpopulation. Identifying and managing care for this group of patients is an important step towards improving health outcomes and reducing total costs for the entire population.
2	Effective care management programs will utilize both qualitative (physician- or patient-reported information) and quantitative (claims, electronic data) resources to identify high-need, high-cost patients. These patients may include those nearing the end of life, patients with multiple chronic illnesses, and patients with behavioral health issues or complex social needs.
3	Best practice models of care management will take a holistic, person-focused and family-centered approach to health including its behavioral, social, and physical aspects.
4	Best practice models of care management will emphasize care coordination across providers and have robust primary care capabilities at their center.
5	Common accountability targets, metrics, and incentives across systems will allow for meaningful comparability of care coordination models and true best practice identification. Transparency of these metrics will foster provider accountability.
6	Reimbursement across all payers should encourage value in delivery models and should be both scalable and sustainable across diverse provider settings and patient populations.

To further these principles, the Work Group is authoring three papers: Proactively Identifying the High Cost Population (available [here](#)); Developing Care Management Programs to Serve High-Need, High-Cost Populations (the subject of this paper); and Payment to Promote Sustainability of Care Models for High-Need, High-Cost Patients (available in the coming weeks).

1 “Proactively Identifying the High Cost Population,” Insights from the Health Care Transformation Task Force, Accessed at: <https://static1.squarespace.com/static/548b623fe4b0991231a05ff0/t/55ca2d24e4b0d196f157ebf4/1439313188533/Proactively+Identifying+the+Hi+gh+Cost+Population+White+Paper+-+Updated+August+5th.pdf>



# Executive Summary

The care management continuum refers to a suite of services and interventions designed to improve care for high-need, high-cost patient populations. Overall, the goal of care management is to help improve and coordinate care for the most complex patients, often those who are often facing multiple chronic conditions. From the initial identification of patients in need, to coordination of care and communication across settings and providers, to evaluation of patient outcomes, care management provides whole-person and patient-oriented care to help high-need patients and their families and caregivers effectively manage their conditions.

As the health care system shifts from a fee-for-service structure to value-based payment programs, appropriate provision of services across the care management continuum can increase value and improve outcomes for patients, while effectively reducing unnecessary care and acute care episodes requiring high-cost interventions.

Unlike traditional, condition-specific disease management programs, complex care management incorporates multidisciplinary teams to provide care across a continuum, linking patients with multiple chronic conditions, advanced illnesses, and/or other medically complex issues to appropriate provider teams and a wide variety of resources. Successful care management programs include many components, or building blocks, that ensure comprehensive, effective, patient-centered services.

The care management process begins by identifying the patients with the highest need and engaging them in the care management process. Once a provider assesses a patient's needs and complete health situation, a personalized care team of various physicians, caregivers, and medical professionals, is formed. This care team must coordinate efforts across settings, enabled by infrastructure for sharing clinical health information. At the heart of these programs, though, is the patient, and patients and their families and caregivers should be involved in managing the patients' own health. Patients with specific chronic illnesses who can benefit from traditional disease management receive those services as one part of the care management continuum.

As patients move through health care system, and specifically in the event of an acute care episode, transitional care is key to preserving high quality care and preventing lapses in care management. Finally, the goal of care management is to improve the quality of care for patients. In order to assess whether this goal is being met, effective care management programs employ a common quality measurement and evaluation framework that can be used to both assess individual care management programs, and to compare outcomes between different programs.

Health Care Transformation Task Force Members operate a variety of care management programs that include most of the care management building blocks. The Appendix to this paper provides detailed examples of case studies led by patient, payer, and purchaser member organizations. Together, the case studies demonstrate that: (1) Properly addressing the patient-centric nature of care management is critical to a program's success; and (2) Effective care management reduces the need for inpatient hospital services.



Through the experiences from their care management programs, Task Force members have identified several lessons learned and opportunities for improvement:

- ***Ensuring Meaningful Patient and Caregiver Engagement*** – Engaging patients and informal caregivers, including family, at all levels of care delivery is integral to the success of care management programs. Forming meaningful partnerships with patients and family caregivers occurs not just at the point of care, but also at the system design/redesign level, and at the community level. At the point of care, treating the patient as the center of the care as well as a member of the care team, and utilizing techniques such as motivational interviewing and face-to-face communication can go a long way to engage a patient and will help the care team to better understand the needs of the patient. At the system level, patients and caregivers can offer important feedback and perspective on care procedures and tools such as patient portals, and should therefore be included in governance discussions and on leadership committees. At the community level, patients and caregivers can help bridge a potential gap between acute care and community-based care management resources.
- ***Performance Measurement: Evaluation of Care Management*** – The Task Force recommends that care management programs include processes for evaluating patient-reported outcomes (PROs) and low- or no-value care. PROs provide information that is important to providing whole person care: health status and behavior, severity of pain, physical functioning, quality of life, etc. This information is most important to patients and may not be available anywhere else. While PROs have been widely used in clinical trials and research, the measures are just beginning to gain traction in public and private value-based purchasing programs. Furthermore, current measurement tools are imperfect. Improving PRO measurement tools and incorporating them into a care management structure can build patient engagement and hold practices accountable for patient health improvements. In addition, care management programs should incorporate a system for evaluating low- or no-value care (i.e., higher intensity treatments that do not yield better outcomes). Care management programs are designed to eliminate care that is either not desired by patients or does not serve to improve clinical outcomes. To effectively evaluate success, these programs should collect information on incidences low- and no-value care in order to reduce waste, improve care, and lower costs.
- ***Context Matters: Defining the Scope of Care Management Programs*** – There is no one-size-fits-all approach for care management. Each program serves its own patient population, reflective of local demographics. In addition, practice size, setting, and program sponsorship and governance impact the resources that a program has at its disposal. Successful care management programs will leverage their resources in the best way for their patient population, while coordinating care between providers and programs.
- ***Designing for Success: Tailoring Care Management Programs to Individual Patients*** – Successful care management programs respond to the specific needs of the patient. This is made possible through the establishment of a trusting relationship at the outset of care. Considerations for the high-need, high-cost population include the patient’s health insurance provider, access to community resources, language preferences, socioeconomic status, and culture. Care management programs and plans should be continuously assessed and adapting to the ever-changing needs of the patient.



- **Overcoming Resistance to Services** – Both providers and patients can exhibit resistance to care management, partially because advancing the Triple Aim involves changing the status quo. Providers who are philosophically aligned with the program, have a track record in improvement, and who are financially invested in the program’s success may provide the strongest leadership for an effective program. For patients, education, patience, empathy, and peer support are critical in overcoming the fear, anxiety, shame, distrust, or other factors that may influence patient resistance to services.

In conclusion, effective care management programs take various forms, yet successful programs incorporate certain foundational building blocks that highlight patient need and a patient-centered approach to care. Care management programs should be structured in a way that best suits the patient demographics and available resources of the provider organization, and care managers should work to engage patients and caregivers in creating the care plan and managing a patient’s health. These care plans should be individualized and respond to changing patient needs. Finally, care management programs should be continuously evaluated using patient reported outcome measures in order to evaluate the quality of care and to ensure that care management programs are successfully improving outcomes while reducing costly care that is either not desired or not clinically beneficial to patients.



# Introduction

Discussions of high-need, high-cost populations often reference the concept that 20% of patients drive 80% of health care costs. Leveraging clinical data, provider relationships, and patient self-referrals to effectively shine a light on the 20% is a significant lift, but insufficient in its own right to improve health care outcomes, enhance patient experience, and drive down unnecessary costs. The first paper of the Health Care Transformation Task Force’s (HCTTF) High Cost Patient Work Group details strategies that provider systems and health plans can use to identify complex patient populations and stratify the complex cohort. Building on that work, this paper shares strategies for developing a suite of services and interventions—collectively referred to here as a care management continuum — for these patients.

The central focus of health care delivery is serving patients in the very best way possible by furnishing high quality care that results in beneficial outcomes. The goal of effective care management programs is no different, yet they face different challenges for high-need, high-cost patients because this population often requires care management across a continuum. This can require coordination among multiple programs, especially when a patient experiences an acute health care episode, recognition of socioeconomic factors, and integration of community-based support. Thus, effective care management requires a comprehensive patient assessment and a shared action plan with mutually agreed upon goals, including directives on care management coordination, to ensure a seamless patient experience.

While the current efforts of this Work Group are focused on a small subset of patients, effective care management typically requires infrastructure that benefits a broader population of patients, helping to address those in most acute need, but also to avert the progression of disease among those at risk of worsening health. In other words, 20% of patients may drive 80% of costs, but robust care management programs, with the ability to use their resources optimally, should ideally be at the ready to meet the needs of 100% of patients, with acute, chronic, or preventive care needs.

This paper relies upon an emerging definition of care management programs as those that “apply systems, science, incentives, and information to improve medical practice and help patients manage medical conditions more effectively. The goal of care management is to improve patient health status and reduce the need for expensive medical services.”<sup>2</sup> Traditional disease management programs, which often focus on individual, often chronic, diseases are often not sufficient for patients with complex needs. Team-based care with patient and caregiver engagement, along with care coordination activities, are critical in helping patients navigate care across settings and managing care transitions. Notably, in the framing of this paper, these concepts are treated as component parts of care management programs rather than standalone activities. Thus, these programs are part of the broader care management continuum.

As value-based payment programs like the Medicare Shared Savings Program (MSSP), Pioneer ACOs, Bundled Payments for Care Improvement, and Value-Based Insurance Design proliferate in the public and commercial health care sectors, it will be critical for providers, payers, and policymakers to support intensive care

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2 Mechanic, Robert. “Will Care Management Improve the Value of U.S. Health Care?,” The Health Industry Forum, 2004. Accessed at <http://healthforum.brandeis.edu/research/pdfs/CareManagementPrincetonConference.pdf>



management and coordination for high-need/high-cost patients, as they can improve care quality and patient experience, while offering an opportunity to avert potentially avoidable health care costs. While various papers have discussed how to develop care management programs in general, or component pieces of such efforts, this paper is written with a mind toward developing such programs in the context of value-based payment initiatives that tie health care reimbursements to meeting defined quality and cost outcomes. It is intended to a) help health systems, payers, and policymakers enhance care management strategies, drawing from evidence and experience of clinically and financially successful programs across the country, b) highlight key opportunities for alignment, and c) help researchers identify areas where more evidence may be needed to understand the cost and quality impact of care coordination.

To help illustrate how to develop care management programs, this paper offers:

- I. Building blocks of care management
- II. Case studies of Task Force member care management programs
- III. Lessons learned and important areas for improvement



# I. Building Blocks of Care Management

Successful care coordination programs employ a variety of tools to improve quality of care and reduce costs. To be effective, these programs must be flexible in design, implementation, and evaluation, rely on robust data sharing, incorporate patient engagement, and adapt to local needs.<sup>3</sup> In addition, they must rely on patient goals, experiences, and feedback. If care coordination is properly targeted, and uses a well-designed intervention and fee structure, it can diminish undesirable outcomes such as re-hospitalization or avoidable emergency department visits.<sup>4</sup>

An important distinction between traditional condition-specific disease management programs and complex care management is the use of specially trained, multidisciplinary teams who coordinate closely with primary care teams to meet the needs of patients with multiple chronic conditions, advanced illness, or other medically complex issues.<sup>5,6</sup> We consider the following components to be necessary building blocks that help guide a successful care management program and address some of the elements that pertain to high risk populations:

- **Identifying the Target Population:** Health care costs are highly concentrated in a very small patient subpopulation. However, not all high-need, high-cost patients are the same. In using predictive modeling tools, it is important to look at prospective risk scores, along with monitoring individuals whose risk scores are trending up over time. The first paper in this series defines the different types of high-need, high-cost patients, outlines their clinical characteristics, and describes both quantitative and qualitative methods that may be used to identify and stratify these patients for care management.
- **Patient and Family Caregiver Engagement:** Patient and family caregiver engagement involves forming meaningful partnerships and building trust at all levels of care delivery. Examples include shared care planning, patient involvement in system design, representation of patients on governing boards, and the establishment of relationships with community-based organizations. Motivational interviewing is an important technique to elicit a patient's goals and desires that in turn supports more effective engagement and participation. In addition, patients should be afforded the opportunity to provide feedback on their care and understand how that feedback is being utilized.
- **Health Assessments and Screening Tools:** A Health Assessment (HA) is a tool that provides the care team with insight on the quality of life and health care condition of its patient. The assessment should include the physical and behavioral health of a patient, especially conditions that are often comorbid (e.g., chronic pain and depression). Standard tools include the SF-12 (or VR-12) health status survey and the PHQ-9 for depression screening. Other tools such as the Patient Activation Measure help assess patient self-efficacy and assist care managers in tailoring their communications to the readiness and understanding of the patient. In order to provide a comprehensive assessment of the patient's health environment, the initial intake should address safety, functional status, social and vocational needs, socioeconomic factors, personal preferences,

3 Krakauer, R., Agostini, J., & Dougherty, J. "Successful Payer-Provider Collaboration: Key Factors Contributing to Success." *Bottom Line Impact*. (2014).

4 Randall S. Brown1, Deborah Peikes, Greg Peterson, et al. . "Six Features of Medicare Coordinated Care Demonstration Programs that Cut Hospital Admissions of High-Risk Patients." *Health Affairs* 31, no. 6 (2012), 1156-1166.

5 Clemens S. Hong, Allison L. Siegel, and Timothy G. Ferris, "Caring for High-Need, High-Cost Patients: What Makes for a Successful Care Management Program?" The Commonwealth Fund, pub. 1764, Vol. 19, August 2014. Accessed at [http://www.commonwealthfund.org/~media/files/publications/issue-brief/2014/aug/1764\\_hong\\_caring\\_for\\_high\\_need\\_high\\_cost\\_patients\\_ccm\\_ib.pdf](http://www.commonwealthfund.org/~media/files/publications/issue-brief/2014/aug/1764_hong_caring_for_high_need_high_cost_patients_ccm_ib.pdf)

6 McCarthy, Jamie Ryan and Sarah Klein, "Models of Care for High-Need, High-Cost Patients: An Evidence Synthesis," The Commonwealth Fund, pub. 1843, Vol 31. October 2015. Accessed at: [http://www.commonwealthfund.org/~media/files/publications/issue-brief/2015/oct/1843\\_mccarthy\\_models\\_care\\_high\\_need\\_high\\_cost\\_patients\\_ib.pdf](http://www.commonwealthfund.org/~media/files/publications/issue-brief/2015/oct/1843_mccarthy_models_care_high_need_high_cost_patients_ib.pdf)





and the ability of the patient to obtain necessary services. HAs also frequently ask questions regarding tobacco use, physical activity, nutrition, and other factors as recommended in the CDC’s policy framework.<sup>7</sup>

- **Team-Based Care:** Care managers are responsible for developing care plans in partnership with patients, monitoring ongoing symptoms, building continuity of care, reviewing patients’ claims data, laboratory reports, and prescriptions, engaging with patients to manage their own health, and working with patients and providers to set treat-to-target goals. In some arrangements, care managers are employed by an insurer, but are “embedded” in physician practices, or even emergency departments, in order to better coordinate care by interacting directly with patients and providers. A care manager may often be a nurse, with support from social workers, behavioral health specialists, pharmacists, or community health workers. Pharmacists are especially important in reducing readmissions by assisting with medication adherence and optimization for patients. Pharmacists employ strategies for providing and transporting medications to patients, working with patients to resolve medication-related issues, polypharmacy review, and educating patients and family caregivers on the patient’s medication regime and the importance of medication adherence.
- **Care Coordination and Infrastructure:** “Care coordination involves deliberately organizing patient care activities and sharing information among all of the participants concerned with a patient’s care to achieve safer and more effective patient-centered care.”<sup>8</sup> This requires effective communication between providers, patients, and family caregivers, utilizing the patient’s language and other communications preferences, and an interoperable infrastructure to enable the transfer of clinical information between care providers. Health information technology is an important enabler in supporting team-based care and can be an important patient engagement tool as remote monitoring and other functionality evolves.
- **Patient-Centered Care:** Appropriate care is care that is both medically appropriate, as well as in line with a patient’s own health goals and priorities. This care is patient-centered and patient-influenced, requiring a collaborative approach between patients and their providers. Treatment option decision support, including the use of formal shared decision making tools, should be offered to patients considering preference-sensitive procedures. Patients should receive no less than the care they need and no more than the care they want, in a timely manner.
- **Health and Disease Management Programs:** Disease management programs are designed to improve the health of persons with specific chronic conditions and to reduce health care service utilization and costs associated with avoidable complications, such as emergency room visits and hospitalizations. Patients are commonly stratified into three or four levels based on risk. Those identified to be at the highest risk level are often appropriate candidates for complex care management, while those patients at moderate risk or low risk may not require as intensive intervention. Programs for diabetes, asthma, and congestive heart failure are the most common.<sup>9</sup>

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7 Ron Z Goetzal, Paula Staley, Lydia Ogden, et al. A framework for patient-centered health risk assessments – providing health promotion and disease prevention services to Medicare beneficiaries. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2011. Accessed at: <http://www.cdc.gov/policy/hst/hra/>, <http://www.cdc.gov/policy/hst/hra/FrameworkForHRA.pdf>

8 <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/index.html>

9 “Disease Management Programs: Improving Health While Reducing Costs?,” Georgetown University, Health Policy Institute. Issue Brief No. 4, January 2004. Accessed at: <https://hpi.georgetown.edu/agingsociety/pubhtml/management/management.html>



- **Transitional Care:** Transitional care encompasses a broad range of “time-limited services designed to ensure health care continuity, avoid preventable poor outcomes among at-risk populations, and promote the safe and timely transfer of patients from one level of care to another.”<sup>10</sup> Education of patients and family caregivers is critical to the success of transitional care.
- **Quality Measurement and Evaluation Framework:** Common metrics and monitoring processes for those metrics, both quantitative and qualitative, are critical to meaningful and effective evaluation of the success of a care management program. Beyond traditional HEDIS clinical quality measures, it is important to incorporate health outcomes measures such as changes in-patient health status and function, as well as patient experience. Utilization measures such as avoidable emergency department visits or primary care sensitive admissions can also be important indicators of program impact and potential cost savings.

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<sup>10</sup> Mary D. Naylor, Linda H. Aiken, Ellen T. Kurtzman et al. “The Importance of Transitional Care in Achieving Health Reform,” *Health Affairs*, 30, no. 4 (2011), pp. 746-754.

## II. Case Studies of Task Force Member Care Management Programs



Health Care Transformation Task Force members operate a variety of care management programs that include most of the care management building blocks. The Appendix to this paper provides detailed case studies which reflect provider-, payer-, and purchaser-led care management programs in different care settings, including acute, outpatient, and remote/telephonic settings. The elements of each program are summarized in the following chart:

Building Blocks of Care Management	Montefiore's Care Management	WakeMed Key Community Care's Complex Care Program	Greenville Health System Care Coordination Program	Aetna's Compassionate Care Program for Advanced Illness	Blue Shield of California's Innovative Care Model	PBGH's Intensive Outpatient Care Programs
Identifying the Target Population	X	X	X	X	X	X
Patient & Family Caregiver Engagement	X	X	X	X	X	X
Health Assessments and Screening Tools	X		X	X		X
Team-Based Care	X	X	X	X	X	X
Care Coordination and Infrastructure	X	X	X	X	X	X
Patient-Centered Care	X	X	X	X	X	X
Health and Disease Management Programs	X		X	X		X
Transitional Care	X	X	X	X	X	X
Quality Measurement and Evaluation Framework	X	X			X	X

The results of these case studies lead to a set of common findings and conclusions. Properly addressing the patient-centric nature of care management is critical to a program's success. The critical element is finding the right match between care manager and patient. The trust between the two that must exist for effective care management is of paramount importance to the patient engaging in a way most beneficial to them.



That relationship also leads to an effective patient assessment, via detailed questionnaires and interviews with patients and families, which forms the foundation of a comprehensive care plan.

Another finding is that effective care management reduces the need for inpatient hospital services, whether that is due to better preventive care that helps avoid acute episodes or the fact that appropriate care management may allow episodes to be better managed through other care delivery options. While the trend toward increasing outpatient hospital care has been evident for some time, effective care management programs for high-need, high-cost patients are helping that trend reach this population.

Also, it may be more desirable for patients with advanced illness to experience the dignity and comfort of hospice care instead of pursuing additional medical interventions where there is little hope of reversing the progression of disease.



## III. Lessons Learned and Opportunities for Improvement

Patients and families are benefitting from innovative care coordination models adopted by payers, providers, and purchasers, yet there are significant opportunities for improvement. As programs were developed and tested, important lessons were learned and areas for improvement were identified. Below, we highlight lessons that are critical to the success of care management programs, and describe a few areas where adopters of care management models should give careful thought and consideration as to what aspects of care management are best suited for their operations and patient populations.

### Ensuring Meaningful Patient and Caregiver Engagement

To comprehensively care for high-need, high-cost patients and improve health outcomes for these populations, it is critical that patients and family caregivers are considered partners in all levels of care delivery. Engagement of informal caregivers, including family, can be extremely helpful, as they are often the ones helping patients manage their illnesses. Caregivers have unique perspectives on how a delivery system is working for their family members and how it could be improved to meet patient needs more effectively. Patient and family caregiver engagement is critical across all patient populations, but can offer particular benefits for the high-risk populations given the expansiveness of their health care needs. Additionally, patients who are empowered to actively participate in the process of their own care typically have better health care outcomes.<sup>11</sup>

Developing robust patient and family caregiver engagement strategies is even more critical in the context of value-based payment initiatives that hold providers and payers accountable for particular quality metrics, including measures of patient experience. Additionally, health care facilities that have adopted a model of collaborative consumer engagement and partnerships with patients and families have demonstrated improved safety/reduction of errors and infections; improved patient, staff, and clinician experience; reduced hospital readmissions; and improved health outcomes.<sup>12</sup>

Patient and family caregiver engagement means meaningful partnership with patients and family caregivers at all following levels of care delivery:

- **Point-of-care:** Shared care planning inclusive of shared decision-making, joint goal-setting, collaborative care, and treatment planning;
- **System design level:** Care coordination, improving patient experience, involving patients in delivery system reforms/care process redesign including the design of patient portals, signage, work flows, governance discussions, and care evaluation; and
- **Community level:** Advising on community resources, establishing relationships with community-based organizations, and serving on governing bodies of community collaboratives.

11 Jeremy Laurance, Sarah Henderson, Peter J. Howitt, Mariam Matar, Hana Al Kuwari, Susan Edgeman-Levitan and Ara Darzi, "Patient Engagement: Four Case Studies that Highlight the Potential for Improved Health Outcomes and Reduced Costs," *Health Affairs*, 33, no. 9 (2014).

12 American Hospital Association, "Engaging Health Care Users: A Framework for Healthy Individuals and Communities," January 2013, American Hospital Association, 2012 Committee on Research, Benjamin K. Chu and John G. O'Brien, co-chairs.



## Point of care

For high-need patients, it is essential to build trust between patients, family caregivers, and the care teams in the clinical setting. Specific examples of engagement which address the needs of high-need, high-cost patients at the point of care include:

- Engaging in shared care planning, including shared decision-making, that reflects the priorities and preferences of patients and their family caregivers.
- Enabling face-to-face engagement where feasible, particularly at the initial referral or intake visit.
- Communicating with patients and family caregivers in culturally and linguistically appropriate ways.
- Considering the patient’s life situation, including family and caregiver circumstances, his or her values and preferences, age, and home environment when making recommendations about the patient’s health care and treatment plan.
- Using patient engagement techniques such as motivational interviewing to elicit patient wants, needs, and desires.
- Providing direct recommendations or “warm handoffs” from the primary care physicians to care managers, if a care manager is utilized. Some care managers accompany patients to their primary care visits.
- Approaching patients during times of high need (e.g., during hospitalization) and addressing language and cultural barriers with concordant and approachable staff.
- Utilizing patient assessments that take into account gaps in care as well as functional status, behavioral health and social service needs, and barriers to care.
- Making electronic information accessible, including on mobile devices, and useful to patients and caregivers. All patient-facing information and communication platforms are displayed in plain language (rather than medical jargon), in patient’s preferred languages, with links to explanatory, contextual information as needed, and accessible to those with visual, hearing, cognitive, and communication impairments.
- Treating the patient as both the center of the care team and a member of the care team. Patients are asked who they want involved in their care, with respect to family caregivers, and define who is considered family. Practices may actively encourage family caregiver involvement, but respect patient choices.
- Forming multidisciplinary care teams that are centered on one or more primary care managers. This is usually a nurse, although social workers and community health workers may be a better fit for patients with major psychosocial barriers to care. Care teams may also include community resource specialist, behavioral health provider, pharmacist, and health coach/community health worker, other clinician specialists (e.g., geriatrician/psychiatrist), and administrative and analytic support staff.
- Providing assistance to help the patient access other needed providers or health services, including community resources.<sup>13</sup>

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13 Op. cit. Hong.



## System design/redesign level

Engaging patients and families at the level of system design/redesign delivery of care can be particularly impactful and can help improve both care coordination efforts and patient experience. If system redesign is taking place in order to specifically better serve high-need, high-cost patients, it is essential to the success of redesign that patients are involved in the process. Specific examples relevant for this population include:

- Patient participation in care design and redesign through patient and family advisory councils, design of electronic patient portal, and/or quality improvement initiatives.
- Care team processes that effectively monitor and manage all tests, referrals, procedures, follow-up care.
- A clear and established feedback loop so that patients, families, and communities can offer feedback and then understand what happens with that feedback.
- Consumer participation on governing boards, leadership committees, and oversight committees, and patient empowerment during governance discussions.

## Community level

Finally, because high-need, high-cost patients may have significant nonclinical needs that are contributing to their health, partnerships at the community level – through collaboration with community-based organizations, facilitating access to community resources and social services, and supporting patients' transitions from acute care settings into the community/back home – are particularly critical for meeting their needs. Further, patient and family advisors, as well as consumer advocates, should be involved in planning, implementing, evaluating, and governing community-wide/community-based programs and collaborations.

This point cannot be overstated. While certain types of care management programs are utilized when a patient is experiencing an acute medical episode, patients with multiple chronic conditions – especially those who are aged – often continue to need broader, multi-disciplinary care management services beyond their acute episode. Community-based care management programs are often critical partners for primary care medical practices to ensure that patients are able to obtain their needed care. These community-based care management programs help, among other things, to mitigate the risk of another acute, costly episode by coordinating appropriate follow up care, facilitating medication management, and addressing other psychosocial and behavioral needs that may contribute to the need for medical services.



# Performance Measurement: Evaluation of Care Management

The proliferation of value-based payment models requires various actors in the health care delivery ecosystem to ensure that health care services yield desired results across the health care continuum. The quality frameworks built into programs such as the Medicare Shared Savings Program, Pioneer ACOs, Bundled Payments for Care Improvement programs, etc. create a feedback loop between providers of care and payers on how such initiatives are faring along several evidence-based process and outcome metrics.

Any system embarking on a value-based payment initiative should certainly be mindful of the quality frameworks to which they will be held accountable for reimbursement purposes, and should establish internal processes to monitor progress on those defined metrics. Typically value-based payment programs include a relatively limited measure set to permit evaluation of outcomes across programs in disparate settings and manage administrative burden for reporting entities.

Yet, the Task Force urges health care stakeholders to go a step further when establishing care management programs – to establish nimble and flexible evaluation frameworks that provide decision-makers with information not necessarily required by value-based payment initiatives today, but that promote the very best care and optimal patient outcomes and experiences among the complex cohort and advance the field of thinking on how to measure quality. Specifically, we recommend that care management programs include processes for evaluating patient-reported outcomes, “low- or no-value care,” and quality, and that federal policymakers eventually consider the incorporation of these elements into quality frameworks.

The evaluation framework discussed herein is essential for managing total patient populations, but it is especially important for assessing care delivered to high-need, high-cost populations as, by definition, this population uses more health care services and because studies have demonstrated that high-need, high-cost populations tend to experience more unnecessary care. In particular, using patient experience reports as a tool to influence effective and efficient care delivery practices, and managing high-need, high-cost patients in a way that reduces or even eliminates low or no value care as a means to reduce health care spending, are two key initiatives that play into evaluating care management programs.

## Patient reported outcomes/patient experience

Patient-generated health data is an emerging term that is used to describe the collection of information gathered by or from patients or family caregivers to help with their health and health care. It can include such things as a treatment history, biometric data, and responses to standardized surveys. This data is particularly important for high-cost, high-need patients as it can provide useful information regarding caring for patients that is not available anywhere else. It can also support providing whole person care – the coordination of addressing physical, emotional, and social needs in a patient-centered manner to improve outcomes and efficient use of resources.

Measures that rely on information from patients, including patient experience and patient reported outcomes, are obtained from the responses to standardized surveys. This information is key to understanding and evaluating the success of a care management process intended to meet the needs of high-need, high-cost patients.<sup>14</sup>

14 David Hopkins and Jennifer Eames Huff, “Patient-Reported Outcomes from the Consumer-Purchaser Alliance,” Consumer-Purchaser Alliance. Accessed at: [http://consumerpurchaser.org/files/CPA\\_Patient-ReportedOutcomesBrief\\_05.pdf](http://consumerpurchaser.org/files/CPA_Patient-ReportedOutcomesBrief_05.pdf)





Patient experience surveys capture patient (or family caregiver) perceptions of their care. The suite of CAHPS surveys (e.g., HCAHPS, CG-CAHPS, ACO CAHPS) measure care experience in a variety of settings. These surveys are incorporated in federal and private sector programs, and are widely used across the U.S. In fact, it is fair to say these are a staple in many payment and public reporting programs. Current federal value-based payment models, Medicare Shared Savings Program, and the newly proposed Comprehensive Care for Joint Replacement (CJR) Payment Model, incorporate CAHPS measures into their quality measure sets. In the recently proposed 2016 Physician Fee Schedule rule, the administration has proposed requiring CAHPS reporting at the individual clinician level. In these programs, patient experience of care is one of the few measures used to evaluate elements of care that patients and family caregivers identify as most important to improving their health outcomes and to their care experience. Gauging a patient's experience of care is especially important for those who have multiple conditions and for whom condition-specific quality measures cannot provide an adequate picture of the total quality of care received. Family caregiver experience data is also particularly helpful in assessing patient experience for those with cognitive impairments that may prevent them from talking about their own experience, or providing insights into areas patients themselves may be reticent to discuss.

Patient-Reported Outcomes (PROs) capture information from patients on their health status and behavior, including their ability to perform normal household functions and job duties. PROs address the issues that are most important to patients (e.g., severity of pain, physical functioning, and quality of life). PROs also address many issues that providers discuss with their patients that ultimately impact their clinical outcomes. When embedded in systematic care processes, PROs advance new opportunities for patient engagement with high-need, high-cost patients (e.g., care management, shared decision-making) and performance improvement. Additionally, PROs help patients select high quality providers. For example, many functionally-impaired patients are interested to know which doctor or care system is most successful at restoring function to someone with knee pain, difficulty with breathing, or back pain. PROs capture this information and public reporting of patient-reported outcomes measures makes this type of quality performance information accessible and useful to patients. This same information can be used to evaluate provider networks to ensure that patients are getting appropriate, high-quality care.

While these PROs are collected in clinical practice on a national scale in other countries, particularly the U.K., traditionally in the U.S. they have been used in clinical trials and research. However, PROs used in clinical practice is gaining momentum. Several large health systems and others have experience using these data on a broad scale, including Partners, Dartmouth, and Providence Health Systems as well as several registries aimed at improving joint care (e.g., California Joint Replacement Registry, MARCQI, and the AHRQ-sponsored FORCE registry).

PROs are also gaining traction in public and private value-based purchasing programs. Purchasers aspire to contract with or steer patients to providers who rapidly return patients to full functioning. They hope to use PROs measures to determine which providers are most successful and reward them either through favorable payment or preferred network position. To help increase the available PROs performance measures, BCBS of MA offers a financial incentive for PROs data collection as part of their alternative quality contract. CMS does the same for the new Comprehensive Care for Joint Replacement (CJR) model. Private and public purchasers in California recognize providers that use PROs as part of a joint replacement registry on their website and in other materials. Some Centers of Excellence benefit programs require the collection and use of PROs.



Moving forward, incorporating and using measures that address patient experience, health status, quality of life, and cross-cutting issues specific to high-need, high-cost patients (e.g., care coordination) is a good starting place that can happen immediately. As mentioned previously, CAHPS surveys are widely used. There are variety of health-related quality of life surveys that are in the public domain, such as the VR-12 (equivalent to SF-12) and Patient Reported Outcomes Measurement Information System (PROMIS) Global-10, or used in clinical practice.<sup>15</sup> Other instruments seek to address self-determination, empowerment and participation in meaningful activities.<sup>16</sup> For care coordination, the Care Transitions Measure (CTM)-3 is now included with the HCAHPS survey. Some condition-specific surveys based on the needs of the target population is the next logical place for short-term implementation. For example, asthma control for a pediatric population or total knee replacement for patients over 50 years old.

That being said, current measurement tools – including CAHPS surveys – are imperfect, and do not probe many of the areas that providers and clinicians need to know to about to better treat complex patients and ensure that new care management programs are meeting patients’ needs. Achieving the greatest possible independence, controlling one’s living environment, living pain-free, and engaging with the community are of central importance to patients (and to providers) and should all be considered when assessing the quality of care delivered to high risk populations. More specifically, new measurement/survey tools could address some of these issues by, for example, including questions that ask if patients feel gratified with aspects of their lives, have friends, are involved in their communities, and are able to live in the setting of their choice.<sup>17</sup>

The Comprehensive Primary Care (CPC) Initiative offers one example of innovative system for accounting for patient outcomes. CPC practices are required to meet certain milestones, including patient experience. The milestones approach – and specifically its inclusion of patient experience – offers a fairly holistic approach and includes mechanisms for reporting and accountability. The milestone directs practices to assess and improve patient experience of care through several options for patient engagement, including involving patients in practice redesign through Patient and Family Advisory Councils (PFAC) and/or other communication channels. Although this approach has its limitations, it moves practices towards a system that requires practices to build patient engagement into practice transformation and holds them accountable to ensure the milestones are met.

## Low-/no-value care

Care management programs are designed to promote efficiency in care delivery with an emphasis on providing patient-centered care through a process of communication and shared decision-making between providers and patients. Therefore, care management programs seek to improve patient outcomes and experience, while simultaneously reducing the cost of care. Often these efficiencies and improvements are achieved through elimination of care that is either not desired by patients or does not serve to improve clinical outcomes. Decades of

15 VR-36, VR-12 and VR-6D. Accessed at: <http://www.bu.edu/sph/research/research-landing-page/vr-36-vr-12-and-vr-6d/>; PROMIS® Dynamic tools to Measure Health Outcomes from the Patient Perspective. Accessed at: <http://www.nihpromis.org/default#3>

16 Participant Outcomes and Status Measures (POSM) Quality of Life Survey, Illinois Department of Aging. Licensed through <http://www.interrai.org/quality-of-life.html>

17 Alice Lind, “Quality Measurement in Integrated Care for Medicare-Medicaid Enrollees,” Technical Assistance Brief, Center for Health Care Strategies, January 2013. Accessed at: <http://www.chcs.org/resource/quality-measurement-in-integrated-care-for-medicare-medicoid-enrollees/>  
Sabiha Zainulbhai, Lee Goldberg, Weiwen Ng, et al. “Assessing Care Integration for Dual-Eligible Beneficiaries: A Review of Quality Measures Chosen by States in the Financial Alignment Initiative,” The Commonwealth Fund, pub. 1743, Vol 2. March 2014. Accessed at: [http://www.commonwealthfund.org/~media/files/publications/issue-brief/2014/mar/1724\\_zainulbhai\\_care\\_integration\\_dual\\_eligibles\\_ib.pdf](http://www.commonwealthfund.org/~media/files/publications/issue-brief/2014/mar/1724_zainulbhai_care_integration_dual_eligibles_ib.pdf)



research have shown the importance of unwarranted variation in health care costs and the magnitude of its impact not only on cost but also quality and experience (e.g., the Dartmouth Institute and Atlas).<sup>18</sup> Put simply, unwarranted variation means that certain areas of the country experience higher health care utilization and costs, but without attendant improvements in health care outcomes for patients. This low-/no- value care goes beyond preventable utilization such as primary-care sensitive admissions or avoidable emergency department visits.

At a more micro level, providers exercise clinical judgment to determine whether a particular course of action is appropriate given a patient’s presenting condition; for any condition or set of conditions, there are often a set of corresponding treatments, more or less interventional and costly. A body of research has found that for certain conditions, higher intensity treatments do not in fact yield better clinical outcomes. Back pain is a commonly cited example where, in many cases, patients who receive more intensive therapies, such as spinal fusion, do not experience improved health care outcomes and are no more satisfied with their care than patients who receive less intensive treatment regimens.

These practice patterns and prevalence of low- or no-value care (i.e., higher intensity treatments that do not yield better outcomes) tend to emerge within regions and are also impacted by the provider supply at the regional level.<sup>19</sup> In 2010, the IOM estimated no-value care accounted for \$750 billion in excess spending – larger than estimates of costs associated with fraud, waste, and abuse. Though care management can be used to decrease instances of low- and no-value care, examples of such care, while prevalent, are not often, or easily, identified.

Today, value-based payment arrangements may not capture the incidence of such low- or no-value care, as financial benchmarks incorporate use of higher intensity treatments and associated costs within a region. The Task Force recommends that CMS consider the addition of such information into baseline/benchmark calculations (to be discussed further in another paper). In the meantime, we suggest that entities structuring care management programs not only establish infrastructures to monitor performance on quality measures and compare utilization to best practice regions or national benchmarks, but also monitor the extent to which the participating providers are delivering low- or no-value care.

As a first step, entities developing care management programs could make use of publically available materials to understand and analyze low- and no-value care.<sup>20</sup> Additional resources include the procedures identified through the Choosing Wisely® campaign. In 2012 the ABIM Foundation launched Choosing Wisely® with a goal of advancing a national dialogue on avoiding wasteful or unnecessary medical tests, treatments and procedures. Choosing Wisely® centers on conversations between providers and patients informed by the evidence-based recommendations of “Things Providers and Patients Should Question.” More than 70 specialty society partners have released recommendations with the intention of facilitating wise decisions about the most appropriate care based on a patient’s individual situation.<sup>21</sup> Resources for measuring such services have been developed by various stakeholders.<sup>22</sup>

18 <http://www.dartmouthatlas.org/publications/reports.aspx>

19 Atul Gawande, “The Cost Conundrum,” The New Yorker, June 1, 2009. Accessed at: <http://www.newyorker.com/magazine/2009/06/01/the-cost-conundrum>

20 Regional variation: Public Dartmouth data [<http://www.dartmouthatlas.org/tools/downloads.aspx>].

Understanding the data and examples of translating it to program design against illness burden and using select metrics, see the following: Understanding Regional Variation in the Use of Surgery [Birkmeyer, Reames, McCulloch, Carr, Cambell, Wennberg] Newly released CMS data on Medicare performance

21 <http://www.choosingwisely.org/>

22 Washington Health Alliance: [http://wahealthalliance.org/wp-content/uploads.php?link-year=2013&link-month=11&link=Choosing\\_Wisely\\_Specifications\\_2014.pdf](http://wahealthalliance.org/wp-content/uploads.php?link-year=2013&link-month=11&link=Choosing_Wisely_Specifications_2014.pdf) and Anthem



## Context Matters: Defining the Scope of Care Management Programs

Successful care management programs take many forms, and there is no one-size-fits-all approach. Each model discussed in the Appendix was designed with specific goals and objectives in mind and the common attributes of care management are adapted accordingly.

It is critical for a care management program to first identify the patient population it intends to manage, and then set goals and objectives for managing that population. Many factors should be considered, including local demographics and profile, the availability and levels of expertise of care management professionals, the goals and values of the patients, and the availability of technology to support care management services. Within a patient population, care management programs should determine whether certain subpopulations require specialized training and customized care delivery –either by pairing of certain care management professionals or instituting of special care management delivery protocols.

Contextual factors such as practice size, an urban or rural setting, and program sponsorship and governance necessitate certain important considerations for care management programs. Larger practices may be able to imbed care managers in different key site such as emergency rooms, while smaller practices, particularly in rural settings, must consider transportation of care managers between care sites. These factors also dictate the resources available to care management programs. Care management programs with fewer internal resources should prioritize leveraging the aforementioned community resources.

Successful care management also requires effective coordination between different care management programs, whether they are related or not. A care management program responsible for overseeing an episodic treatment regime should ensure for an appropriate hand-off to other care management type programs, whether they relate to post-acute care facilities or community-based care, to ensure patients are properly care for across the continuum in a holistic way.

## Designing for Success: Tailoring Care Management Programs to Individual Patients

Understanding each patient’s profile is critical to defining an effective path to care management, and services should be furnished in a context that creates a comfort zone for the patient and family. Critically important is the ability to establish a trusted relationship at the outset, which often begins interacting with a work force that reflects the patient population being served, and by approaching the patient as a partner. Language barriers, patient capacity, socio-economic status, and cultural issues should be identified early on and factored into any tailored approach.

Whether the patient has insurance and, if so, the extent of its coverage is also an initial consideration. Different insurance products take different approaches to care management, which can produce different results. Community-based care management programs and social services networks may be able to fill a need of the



patient populations, yet the availability of those resources is community-specific, so effective case managers will need to know those resources to be able to make appropriate connections for patients.

The need for care management customization is particularly important when caring for high-need, high-cost patients. A patient's level and type of acuity, access to community-based support, and prognosis for changing needs will help define an appropriate care management program. As these patients' care needs increase, their level of care management services may also need to be adjusted. It is essential to periodically revisit a care management program to assess its continuing utility for particular patients, and whether the patient needs to be transferred to a different type of care management program and adjustments made to the existing program.

Given the diverse settings, resources, and patient profiles of care management programs, context-specific training of care managers is integral to success. Care management teams should be diverse, multi-disciplinary, and well-integrated to the care management setting.

## Overcoming Resistance to Services

Resistance to care management can occur at both the provider and patient level. This is, in part, due to the fact that working towards improving the Triple Aim requires changing the status quo. Given the intensity of such a substantial change in care delivery, it may be helpful to select participating providers who have philosophical alignment with the goals of the program, a track record in improvement, and the infrastructure to support changes. In addition, acceptance of care management models may be greater in environments that already have an element of financial risk. Successful implementation of the program is in large part driven by strong senior leadership support, a dedicated physician champion, staff that are the right fit for this model of care, and ailing patients whose outcomes can be improved through rigorous care coordination and collaborative self-management.

Patient resistance to services can occur for any number of reasons: fear, anxiety, and/or shame over a medical or social condition or situation, distrust of providers or the health care system generally, or even a diminished capacity to fully comprehend their situations or the care plan designed to help them. The potential for patient resistance to services is a reality and should not be perceived as negative reflection on patients. Patients and family caregivers who have successfully overcome their own resistance to services (or that of their loved ones) are an important group of individuals who can help organizations to gain a deeper understanding of the factors driving resistance, provide counsel on effective outreach strategies, and partner to co-design effective care management programs. Effective care management programs are designed to anticipate the possibility of patient resistance and proactively employ strategies that help overcome it so patients can receive the care they need and develop the relationship necessary for appropriate patient engagement.

To emphasize, education, patience, empathy, and peer support are often critical in overcoming patient resistance to care management services. Patients and their families should be educated by an appropriate care management professional who can develop a collaborative relationship with the patient and explain the specifics



of the program in detail, the benefits of such programs, and discuss how anticipated program outcomes align with patient and family goals. A patient's primary care provider may be an appropriate person to start the discussion, especially if there is a relationship of trust with the patient, yet may not be the best resource to fully explain the specifics of the care management program. Other affiliated professionals (including community health workers or peer/family support coordinators) may be a better resource for the patient and family over the course of the care management, and those professionals often can build a trusting relationship beginning with a referral from the trusted primary care provider.

For patients who resist care management or clinically necessary care, evidence-based collaborative self-management support programs (often lay- or peer-led) can help to activate patients and build the self-confidence necessary for program participation. An appropriate approach is case-specific and depends on the individual patient's or family's openness to assistance and capacity to understand what is being



## IV. Conclusion

Care management programs serve a vital role in today's health care environment. They help facilitate patient-centered, patient-directed care that can lead to a greater focus on higher quality services at lower costs. The foundation of care management programs are rooted in core building blocks, yet the most effective care management programs are those that build on the aforementioned core principles to tailor a program for a specific purpose and patient population.

Successful care management programs take many forms, yet all infuse effective patient involvement as bedrock principles. Engaged patients, families, and support networks are critical to effective coordination of care across the continuum, whether it's related to an acute episode, post-acute care, return to normal living situation, and community-based care – medical and psychosocial.

When care is properly managed across the continuum, patients are more likely to have appropriate preventive care, necessary follow up, and reduce the need for significant medical interventions. All of these outcomes have great potential to improve quality of care and reduce unnecessary medical expenses.

We must overcome a number of barriers and challenges in order for care management programs to succeed and become sustainable. Financial incentives must align, infrastructure must be interoperable, and there must be a willingness to transition to care management models.<sup>23</sup> The most significant barrier of these is the fee-for-service payment system that impedes broad adoption of complex care management programs. The third paper in this series will outline payer/provider partnerships that incentivize sustainable innovation and delivery re-engineering to improve care for high-need, high-cost patients.

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23 Op. cit., McCarthy.



# APPENDIX:

## Health Care Transformation Task Force Member Case Studies



# Provider-Led Care Management Programs



## Montefiore Health System's Care Management

Located in the Bronx and Hudson Valley, New York, Montefiore Health System (MHS) serves one of the poorest and most disproportionately disease-burdened counties in the nation with nearly 80% of the payer mix from Medicare and Medicaid. The integrated delivery system includes 10 hospitals and nearly 200 primary care, school-based, and other specialty care sites.

### Background

Montefiore has been a leader in payment and delivery reform pursuing value-based reimbursement in both the public and private sectors. Montefiore operates one of the most financially successful Pioneer ACOs in the nation, and provides population health and care management services to approximately 400,000 patients through full-risk and shared savings arrangements.

### Program Description

The Montefiore Integrated Provider Association (MIPA) is an organization of more than 3,900 MHS-employed and community-based providers. The Montefiore Care Management Organization (CMO) is a robust health care management company that delivers care management services to patients with complex illnesses, coordinating seamlessly with on-site care delivered in acute and post-acute settings. The CMO also supports its network by providing patient education, provider relations, credentialing services, community health programs, data analysis and reporting, financial and customer services.

### Care Management Strategies

The CMO identifies high-need, high-cost patients within the managed population through data mining, self-referral, and provider referral. Once identified, Montefiore staff contacts these individuals to arrange a comprehensive biopsychosocial assessment. An Accountable Care Manager (ACM), who is either a nurse or social worker, administers the assessment using motivational interviewing techniques. The assessment evaluates issues related to aging, cognitive and functional status, psychosocial stressors, caregiver supports, behavioral, and end of life planning needs.

Upon completion of the assessment, care managers compile a list of patient needs linked to specific interventions, which becomes the basis for a personalized care plan. The ACM reviews the personalized care plan with the patient and/or caregiver to obtain input and establish realistic goals. Interventions are then tracked within the CMO's automated care management system to ensure follow-through. The patient's primary care provider receives a summary of the issues identified upon completion of the assessment, along with a set of recommendations and actions to be taken by the ACM and patient or caregiver. There is regular communication between the care guidance team, patient/caregiver, and physician for as long as the patient requires care management.

Interventions and resources available to the ACM include:

- **Chronic care management programs for diabetes, heart failure, asthma/chronic obstructive pulmonary disease:** The CMO's comprehensive chronic care management programs use patient identification algorithms and



stratification criteria that permit targeting of interventions to individuals based on the severity of their disease. CMO physicians, ACMs, certified diabetic educators, and pharmacists work closely with providers to reinforce the use of evidence-based guidelines to create optimal treatment plans and promote patient adherence with the treatment plan. Interventions include regular telephonic contact with the care guidance team, tele-monitoring, educational mailings, and in-person individual and/or group education sessions.

- **Tele-monitoring:** The CMO utilizes tele-monitoring with individuals in its chronic care management programs for heart failure and diabetes and in other high-risk cohorts, including a small cohort of at-risk, frail, community-dwelling elderly.
- **Medication reconciliation, adherence and optimization:** The CMO employs pharmacists who work closely with ACMs, PCMH teams, inpatient and specialty providers, and patients/caregivers to review and resolve medication-related issues and provide patient education. Interventions include: assisting in attaining target dose levels of key medications for conditions such as heart failure and depression; recommending strategies to achieve better levels of medication adherence; reviewing regimens involving polypharmacy; and assisting patients facing financial barriers to adherence.
- **Linkage to community support services and entitlement programs:** Based on identified patient need, referrals are made for services/programs such as adult day care, Meals on Wheels, transportation, caregiver support, and senior centers. In addition, screening is conducted to determine eligibility for entitlement programs, such as Medicaid, and support is provided to facilitate the application process.
- **Behavioral health management:** The assessment process screens for depression, at-risk drinking, and history of other behavioral health disorders. ACMs work with PCPs to incorporate treatment of these issues into the patient's care plan, including assisting with the coordination of referrals for treatment and/or community-based services when appropriate.
- **Life care planning and advanced illness management:** The assessment process screens for the appropriateness of palliative care for pain and symptom management and/or hospice for end of life care. The majority of CMO clinical staff have received certification through the End of Life Nursing Education Consortium (ELNEC).
- **Inpatient care monitoring:** At Montefiore, hospital-based case managers are automatically alerted when a patient covered by a capitated or shared savings contract is admitted. The hospital-based case manager works closely with the interdisciplinary inpatient team to identify the root causes of admission and readmission, participate in patient and caregiver education, facilitate discharge planning, and communicate with the PCP and the CMO-based ACM.
- **Caregiver support:** In cases where the ACM is working with a caregiver, interventions to help reduce and avoid caregiver "burn-out" are enacted. This can include having a care manager interact with the caregiver on a regular basis, helping to arrange for respite services, and referring caregivers to support groups.



## Findings

Montefiore's Pioneer ACO is one of the most successful across the country. It has generated an average annual savings of approximately 6% from benchmark and was the most financially successful Pioneer ACO in Performance Years 1 and 2, saving 7% and 7.1%, respectively.

Montefiore has also been successful in managing complex patients who are commercially insured. For example, it reduced the diabetes admission rate for one commercial insurer from 343 per 1,000 to 299 per 1,000 from 2009 to 2014.



# WakeMed Key Community Care's Complex Care Program with Evolent Health

Located in the competitive health care market of Raleigh, North Carolina, WakeMed Key Community Care (WKCC) is an ACO formed by WakeMed Health & Hospitals and Key Physicians in 2013. With both commercial and Medicare contracts, WKCC is focused on enhancing the quality and coordination of care for patients, especially the chronically ill, in the Triangle area.

## Background

In addition to WakeMed Key Community Care's ACO network of more than 220 independent primary care physicians and a leading health system with another 500 providers, WKCC's efforts are supported by Evolent Health, a partner for providers transitioning to value-based care and a member of the HCTTF. Evolent Health is a key partner in the ACO and supports WKCC's clinical, operational, and financial accountable care efforts. In collaboration with Evolent, WKCC developed an initiative to achieve higher value for high-risk patients called the Complex Care Program, which is central to their ACO strategy.

## Program Description

WKCC's Complex Care Program is an initiative meant to identify and manage high-need, high-cost patients that require more extensive care coordination needs. The Complex Care Program is supported by the ACO's organizational and operational model. The model serves to align financial, clinical, and executive leadership both from strategic and operational perspectives to successfully deliver financial return and improved clinical outcomes under a value-based care paradigm. This model has demonstrated a high degree of replicability of its governance and its physician alignment approach in diverse environments among other partner health systems.

A critical component to the model's success is the information system's ability to assure that data from clinical (e.g. EMRs, lab, pharmacy) and administrative (e.g. claims) sources integrate across the care continuum. Integration initiatives that optimize multiple electronic medical records systems are the highest information systems development priority at WKCC.

## Care Management Strategies

WKCC's Complex Care Program uses an innovative approach for targeting high-risk patients with more extensive care coordination needs, including predictive modeling and advanced stratification methods to identify chronic patients (e.g., diabetes, coronary artery disease, congestive heart failure, COPD, asthma) with the highest likelihood of having an avoidable acute event in the 12 months following identification.

Central to the program is the care advisor who regularly engages with the primary care team on-site regarding services needed for the patients. Physician engagement, clinical guidance, and patient feedback are the keys to successfully managing chronic conditions, along with collaboration among the care advisor, the dietitian, the pharmacist, and behavioral health providers.



The program is focused on behavior change and motivation, engaging patients in setting their own goals and graduating them when they achieve their goals. A patient-centered, whole-person view is emphasized to address not only the diseases in question but also other drivers of poor outcomes such as behavioral health issues, psychosocial factors, finances, and living situation.

Patients participate in the Complex Care Program for less than six months on average. The program emphasizes a short timeframe, driving to measurable results quickly while tracking the process measures, including: (1) Initial care planning within 30 and 60 days of identification; (2) Care planning visits with the primary care physician; (3) Extended care visits which include those with a pharmacist, social worker, or nutrition educator; and (4) Engagement as measured by number of telephone or in-person contacts per month. WKCC considers continued tracking to be a high priority in order to further understand the relationship between the process measures and the outcomes measures of per member per month spend and inpatient utilization.

## Findings

A case-control study of WKCC's Complex Care Program for the ACO's MSSP beneficiaries showed a 35% reduction in acute inpatient days per thousand and a concurrent 25% reduction in acute inpatient spend ( $p < 0.05$ ), key indicators of improvement in quality of life for WKCC's patients. Outpatient utilization did not decrease in terms of emergency department (ED) visits, primary care visits, and specialist visits.

WKCC's organizational and operational model has had the broader impact of reinforcing the structure of the MSSP ACO model to benefit both Key Physicians and WakeMed through the sharing of technology, infrastructure, people, and processes. These structural configurations have resulted in the physician engagement, and the formation of information systems and best practices that have been crucial for the Complex Care Program to achieve favorable results.

In addition to a significant reduction in acute inpatient cost and utilization, a quantitative analysis shows favorable trends for graduates of the WKCC MSSP Chronic Care Program compared to a control group matched on age, gender, comorbidities, months of health plan eligibility, and a propensity score based on 12 months of historical health care costs and utilization.

These trends include:

- A 18% reduction in total (acute and sub-acute) inpatient admissions with a concurrent 22% reduction in total inpatient spend;
- A 11% increase in PCP visits paired with a 18% increase in PCP spend; and
- A 9% reduction in total medical spend.

*The qualitative case studies of patients in the Complex Care Program reinforce the successful cost and utilization outcomes. For example, a patient was identified for high ED utilization (nine visits 2014, seven in 2015 prior to May). The diagnoses were hypertension Irritable Bowel Syndrome (IBS), atrial fibrillation, dementia, and acid reflux. The PCP indicated this was one of his most challenging Medicare beneficiaries. The patient was compliant with every three month PCP visits; however, despite the counsel to call the PCP prior to going to the ED, the patient repeatedly used emergency services for non-urgent complaints. The care advisor met with the patient in the PCP office and helped schedule monthly PCP visits and frequent telephonic check-ins to reinforce the importance of consistent PCP services. After beginning this intervention, the patient called the PCP prior to seeking emergency care and he has not utilized the ED since May 2015. The care patterns in this case study are representative of the overall effectiveness of the Complex Care Program.*



## Greenville Health System Care Coordination Program

Greenville Health System is the largest multi-hospital health system in South Carolina. It is a nonprofit, patient-centered, teaching and research institution. The system has 1,268 licensed beds, 1,271 affiliated and employed medical staff, and 10,925 employees dispersed throughout five medical campuses and a variety of outpatient and specialty facilities. Its seven residency and seven fellowship programs provide training for physicians, and nursing and allied health students.

In December 2014 Greenville Health System (GHS) launched a nine-county, physician-led health care provider collaboration called My Health First Network. The affiliation of 1,850 providers from GHS, Baptist Easley, Self Regional Healthcare, Abbeville Regional, Newberry, and independent physicians enable optimal collaboration on best practices and consistency in health care delivery.

With Medicare, Medicaid, and commercial contracts, Greenville Health System (GHS) and My Health First Network (MyHFN) focus their efforts to help control escalating health care costs and improve quality of care for patients in the upstate region of South Carolina.

### Background

Greenville Health System's Care Coordination Program is based on a population health model of care that provides care coordination across the continuum of care. The goal of the program is to optimize the triple aim by improving the health and quality of care for populations, engaging patients to improve their quality of life and health care experience, and coordinating care to provide the right care at the right time in the right place, therefore reducing costs and avoidable utilization. The program has multiple levels and points of entry from complex care management, including transitions in care to disease and lifestyle management concentrating on the individual patient wherever they may be on the care continuum.

### Program Description

Greenville Health System uses an integrated and proactive approach to population health using a value based model that improves health and quality of care while managing costs. Care coordination and care management supported by integrated information technology enables seamless care throughout the continuum of health care from catastrophic and complex acute care management and disease management to lifestyle and wellness management. The overall goal of GHS care management is to foster health improvement in a patient-centered and clinically responsive environment.

The complex care management component utilizes predictive risk analysis tools to identify complex patients that have multiple chronic diseases and high utilization that require extensive care management and care coordination interventions. This risk analysis also allows GHS to identify those patients that are predicted to incur high costs and increasing utilization in the future to allow early intervention and care coordination to avoid unnecessary cost and health burden.



The transitional care component targets patients that are in acute care and are a high risk of readmission, poor outcomes, and increased utilization. Face-to-face contact with the acute patient and family/caregiver while hospitalized sets the stage for seamless hand-offs and continuity. These patients are managed across a thirty to ninety day intensive course to avoid re-hospitalization, improve outcomes, and coordinate care to the appropriate sub-acute, out-patient or community resource. Interventions targeted at the patients specific needs allow patients to transition through levels of care seamlessly and without complication.

The disease management component uses condition management registries to manage patients with at least one chronic disease. The program's goals are to educate patients about their condition, guide the patient through the health care system, and create a self-care plan that is patient centered and supported by the family, caregiver and physicians.

GHS utilizes key stakeholders and physicians in the development of best practice guidelines and clinical pathways for quality driven care. Seamless referral from one level of care to the next is a key element to guiding the patient through the complex health care environment.

## Care Management Strategies

The care coordination team approach comprised of various skill levels including Registered Nurses, social workers, health coaches, and community health workers is key to GHS's care management success. The care managers are located in physician practices and are strategically placed geographically with a team comprised of RNs, social workers, and disease managers / coaches to enable timely interventions and collaboration with the physicians and help promote point of care strategies. Using an innovative care management tool, the care managers are able to comprehensively assess and create a longitudinal plan of care that follows the patient throughout the health care continuum. This tool also promotes culturally appropriate assessments to maximize patient values, preferences and life situation. The care management platform allows the care manager to create a care team that includes multi-disciplinary roles such as family and caregivers, pharmacists, diabetic educators, disease specific navigators, social and behavioral services, and nutritionists allowing a whole patient approach for input, management, and continuity while avoiding duplication of care.

Patient engagement is managed through face-to-face visits at the physician office or in the home when appropriate and telephonically for follow-up. The care managers and disease management coaches use motivational interviewing techniques and teach-back methods for optimal engagement. The patient care plan is created with the patient, the family and caregiver, the physician, and care team to provide a holistic and patient-centered path to optimal health. Patients are encouraged to use the system-wide patient portal for shared input and decision making. This value-based model of care and the patient engagement strategies are shared throughout My Health First Network to promote integration of technology, best practices, critical pathways, and processes. This is accomplished through the network governance structure with regional steering committees and care management work groups reporting up through the network quality and care model committee and board. This enables key physician involvement and support for the care coordination program.



Other important care management program strategies and components at GHS include:

- Specialized training in palliative care, hospice needs and timely referrals
- Diabetes self-management programs
- Tele-monitoring programs for diabetes and heart failure
- Partnerships and close relationships with many community-based programs and services
- Care giver support through a Reach grant and TCARE initiatives
- Accountable community programs including paramedic outreach to under-served populations and the GHS mobile health clinic serving these neighborhoods
- Nurse triage services for after-hour calls to divert unnecessary emergency department visits and costs
- Collaborative pharmacy programs for medication reconciliation and “Med to Bed” program

## Findings

The value-based population programs at GHS continue to evolve with Medicare Shared Savings Program (MSSP) and commercial contracts. Data collection is on-going.

The longest running shared savings arrangement with a Medicaid Managed Care Program has shown significant improvements:

Results comparing the year prior to program implementation (2012-2014) include:

- Inpatient utilization/1000 decreased 25%
- Emergency department utilization/1000 decreased 33%
- 30-day all-cause readmissions decreased 20%
- Wellness/preventative visits per member increased 300%
- Prescriptions/member decreased 14%
- Percent generic utilization increased 8%
- Significant shared savings realized at 2013 and 2014 years end
- Discharge satisfaction increased from 83.9% to 93.9%
- Transitions of Care satisfaction increased from 52.2% to 62.3%



# Payer-Led Care Management Programs



## Aetna's Compassionate Care Program for Advanced Illness

Aetna is one of the nation's leading diversified health care benefits companies, serving an estimated 44 million people with information and resources to help them make better decisions about their health care. Aetna offers a broad range of traditional, voluntary and consumer-directed health insurance products and related services, including medical, pharmacy, dental, behavioral health, and group life and disability plans. Their goal is to build a simpler, more integrated health care system that makes the right care at the right time possible, with less duplication and hassle.

### Background

Aetna's long-standing Compassionate Care Program is designed to improve the quality of patient care for individuals with life-threatening illnesses by helping patients get access to palliative care and hospice benefits. Key to the success of this program is Aetna's highly trained case managers who work with patients and their families to make life better for patients with advanced illness.

### Program Description

Through this initiative, Aetna offers complex case management to members with serious illness who are enrolled in the Aetna Compassionate Care Program (ACCP). The ACCP focuses on helping people understand pain management and other palliative care options, and enables them to make more informed decisions about how to spend their final days, at no additional cost to members.

The foundation of the ACCP, which also provides a direct benefit to patients, is the liberalization, or relaxation of restrictions, of the hospice benefit. In 2004, Aetna liberalized its hospice benefit with a group of commercial plan sponsors, finding that liberalizing the hospice benefit, along with the use of case management did not increase costs. As a result, this construct is now standard for Aetna's commercial business, except for Medicare Advantage due to CMS' coverage and payment rules for hospice care.

Today, the ACCP removes barriers to accessing hospice care by eliminating the requirement that commercially-insured members stop curative treatment to be eligible for hospice benefits. Aetna offers concurrent hospice and disease-directed treatment in commercial plans for members with a prognosis of up to 12 months, in contrast to the standard Medicare hospice benefit requirements of a prognosis of six months.

### Care Management Strategies

Members are identified in several ways: (1) a predictive model developed by Aetna; (2) a concurrent review and precertification process; (3) member self-referrals from program information featured in member newsletters; and (4) physician referrals. Case managers complete a comprehensive assessment of the patient's needs by telephone, and consult with the patient, physician, and patient's family.

The success of the ACCP is due to the efforts of the dedicated and experienced case managers who are able to



develop trusting and meaningful relationships with Aetna members and their families at a time when they are most vulnerable and in need of assistance. Case managers serve as the liaison between the medical practices and Aetna's care management resources. Nurse case managers are trained to manage patients with multiple chronic conditions, depression, dementia, advanced illness, or palliative care needs. This training includes dealing with the unique and often difficult circumstances associated with advanced illness. Case managers provide education and support, give assistance with pain medications and psychosocial needs, and help ensure that advance directives are in place and followed. In addition, they can also coordinate home and community-based care services, help members monitor their health conditions, identify barriers to care, and address issues arising in care transitions.

Initially, Aetna relied on a telephonic system for care management, but it is gradually transitioning to a model where the case managers are embedded in the physicians' practices. This collaborative care model has proven to be more effective than remote case management alone, as clinicians and case managers work together to better identify and serve patients in need. Also, being embedded in the practices provide the case managers the ability to interact directly with the patients and physicians' staff.

## Findings

In Aetna's experience, a key ingredient to success is selecting, training, and mentoring good case managers. Case managers often develop a close relationship with members, and the depth of this connection is valued by members and their families. Additionally, these nurses find this important work highly rewarding.

For members enrolled in the ACCP, there is:

- Tripling of the hospice election rate;
- More than doubling of the average hospice length-of-stay;
- 82% reduction in acute inpatient days;
- 86% reduction in intensive care unit days;
- 77% reduction in emergency department visits; and
- A high level of satisfaction among members and families.



## Blue Shield of California’s Innovative Care Model

Blue Shield of California is a not-for-profit health insurance plan dedicated to providing Californians with access to high quality care at an affordable price.

### Background

As an insurer, Blue Shield (BSCA) of California sees value in deepening provider partnerships. The biggest opportunity to impact quality, member experience, and affordability of care is through the “Integrated Care Model”: “Extensivists” focusing on (1) advanced facility care, (2) home care, (3) high-risk clinics, and (4) care management and coordination across all settings. Top performing provider delivery systems have six essential elements of care—the Extensivists plus optimized primary and collaborative specialty care. BSCA seeks to consistently implement these components through its ACO partners across all lines of business.

### Program Description

When a patient requires medical care either at a hospital, a Skilled Nursing Facility (SNF), rehabilitation center, or the Emergency Department (ED), advanced facility care initiatives can help to decrease the length of time a patient spends in one of these facilities, make certain they receive optimal care delivery, coordinate their care, and further ensure they do not return to the inpatient setting again.

### Care Management Strategies

The following are the four key components of BCBA’s innovative integrated care model.

#### ***Advanced Facility Care***

Successful advanced facility care includes the following components:

- *Robust Hospitalist Program:* A physician dedicated to delivering comprehensive medical care exclusively in a hospital setting sees patients in the emergency room prior to their admission in order to assess if the admission is appropriate or can be handled at a lower level of care. In addition, hospitalists round daily with both an inpatient care manager specializing in care transition and intimate coordination with an outpatient care management team to coordinate the patients care while they remain in the hospital and to prepare for their discharge.
- *Readmission Prevention Program:* Evidence-based programs and daily review of readmissions are used to identify members who may be at a high risk for readmission and to determine cause and mitigate future risk of reoccurrence. These programs include comprehensive discharge planning and care transitions.
- *Inpatient Care Management Program:* Case managers, located in the hospital, are dedicated to managing a patient from pre-admission to discharge.
- *Skilled Nursing Facility (SNF) Program:* The SNF has full staffing and admits patients 24 hours per day and seven days per week. Together, a care manager and a SNF professional have significant family meetings and provide care coordination and palliative care as appropriate.



### **Home Care**

Home care programs focus on patients who otherwise come to their usual place of care. Patient populations include the palliative care patient, home bound patients, patients in long term care, patients who require chronic dialysis, care transitions, chronically and persistently mentally ill, and short term acute stabilization. This patient population often includes socioeconomically disadvantaged, the elderly, frail, or those who are too sick to regularly tolerate travel to a physician's office or even a high risk clinic for services/care. These programs are most often led by a physician with the majority of care delivered by teams of nurse practitioners and social workers.

### **High-Risk Clinics**

A health care delivery system designed to provide care to patients with comprehensive and complex needs.

Components of successful high-risk clinics are:

- *High-risk discharge follow-up visits:* Appointments available and scheduled within 24 hours of discharge. When appropriate, a patient can be seen for multiple visits.
- *Care of complex patients:* Specialized team of physicians, nurses, pharmacists, and social workers dedicated to providing care to medically complex patients with chronic conditions or long term needs. This includes group visits (diabetes, COPD, CHF), oncology program, and pain management for seniors and commercial patients, though the clinical teams are different for both.
- *Services requiring medical oversight:* These include wound care and IV infusion therapy.
- *Coumadin and other medication management clinic:* Coumadin is a medication that requires very close monitoring to ensure the levels in the blood remain in a therapeutic window. A Coumadin clinic can prevent hospitalizations and ensure patients have a place to go for close monitoring.
- *Annual wellness exams:* Yearly exams for seniors ensure proactive identification of conditions and gaps in care.
- *Care for the chronically and persistently mentally ill*
- *Cardiovascular and other disease management coordinated care clinics*

### **Care Management/Coordination**

Care management provides care to members while inpatient, outpatient, and as they transition in-between.

Care management can be short term or longer term. The longer term often transitions into a high risk clinic or a home care program. Care management under the integrated care model includes:

- *Disease Management:* Patients are generally in a disease management program for 3-12 months with the goal of stabilizing/improving the patient's condition and teaching them to self-manage.
- *Complex Case Management:* A patient is typically considered complex when they have multiple conditions, are on medications that require close monitoring or they have a condition that needs to be tightly monitored or may cause a significant adjustment to their daily living.
- *Transitions of Care:* As members move throughout the care delivery system and transition from one level of care to another (hospital to home, hospital to long-term care, etc.), care management can help coordinate the care and facilitate smooth transitions. This includes screenings and preparations for patients who will be undergoing procedures or surgeries.



## Findings

BSCA's ACO partner organizations have achieved a \$325 million cost savings over the initial five years of the program. This collaboration has also demonstrated a 13% reduction in admissions and 27% reduction in total hospital days during the same period. The patient population served by this program is about 325,000 people among approximately 20 ACO partner medical groups and IPA delivery systems.

Over the past year and over the next two years, BSCA is scaling this program to cover over 500,000 patients among 40 ACO medical groups and IPA's. BSCA anticipates that the new clinical design described will achieve an additional 25% reduction in hospital admissions and even greater reduction in total hospital days. This will also result in even a larger proportion of total cost of care savings throughout the multiple geographies served by the ACO medical group/ IPA collaboration.

# Purchaser-Led Care Management Programs



## Pacific Business Group on Health's Intensive Outpatient Care Programs

The Pacific Business Group on Health, a not-for-profit 501(c)(3), has led efforts to transform U.S. health care using the combined influence of some of the largest purchasers of health care services in the United States.

### Background

As one of its initiatives to drive health care improvements, the Pacific Business Group on Health (PBGH) established Intensive Outpatient Care Programs to serve high-need, high-cost Medicare patients within 23 delivery systems in five states (Arizona, California, Idaho, Nevada, and Washington) over a three-year period ending in 2015.

### Program Description

The Intensive Outpatient Care Programs (IOCP) established a dedicated multidisciplinary team closely linked to primary care to address medical, behavioral, and psychosocial needs of patients. Based on a successful pilot for commercial patients, PBGH won a grant from CMS's Innovation Center to expand the IOCP model to the Medicare population and test the scalability of a common care model across many clinical settings.

### Care Management Strategies

To identify high-need, high-cost patients for the program, IOCP recommended a combination of predictive risk scoring with clinical judgment. If the delivery system did not have predictive software, IOCP recommended a utilization-based algorithm:

- Two or more admissions, in last year, with one in last six months
- Six or more ED visits in last year

Other stratification criteria include:

- Five or more medications
- Three or more active specialists
- Behavioral health diagnosis
- Three or more chronic conditions

Best practices included sharing the algorithm-based patient list with the PCP and asking which patients from the list they would recommend for intensive care management.

The care model must have elements (referred to as "guardrails") implemented across the 23 delivery systems include:

- *Trained Care Coordinators*: These nurse or social worker-led teams, which can include community health workers and medical assistants, maintain a close, ongoing relationship with the patient, developing trust over time.
- *A face-to-face "supervisit"*: This visit, which must occur within one month of enrollment, enables information to be gathered with a motivational, open, and flexible approach.



- *Standardized longitudinal assessment:* The assessment includes tools for physical function, mental well-being, and patient engagement in care.
- *Monthly, bi-directional communication between the care coordinator and patient*
- *Shared Action Plan:* A plan created with the patient's own goals at its center.
- *Warm handoffs:* These connect relevant support services (e.g., home health, behavioral health, transportation, drug assistance programs, food banks, and other community services).
- *24/7 access:* Patients are offered a 24/7 access solution, with guaranteed communication to the care coordinator the next business day.

Participating delivery systems were encouraged to adapt implementation to their local environment as long as core requirements (i.e., guardrails) were met.

To participate in the IOCP, all care team members received training, but care coordinators participated in intensive training that helped them develop or sharpen skills in gaining patient trust, maintaining a close relationship, and coaching self-management support and behavior change. In addition, training sessions were directed at organizational leaders to build the organizational systems required for successful implementation such as patient identification, physician and patient engagement, and IT system support.

While the IOCP model has similarities to other new models of care, it is the unique combination of these elements that differentiated it from others.

## Findings

PBGH collected data on 15,000 Medicare patients enrolled by the 23 delivery systems over two years.

### ***Patient-Centered Measures***

37% of IOCP patients moved to a higher level of activation while in the program (e.g., patient moved from PAM level 3 to level 4). Forty-five percent remained at the same level of activation and 11% moved to a lower level of activation (with the highest level having the greatest decrease). Increased patient activation was associated with patients being more likely to successfully graduate from IOCP.

The Patient Health Questionnaire (PHQ) is a multi-purpose tool for screening, diagnosing, monitoring, and measuring the severity of depression that takes only a few minutes to complete. One-third of people with a serious medical illness experience symptoms of depression, making the IOCP patient population at a higher risk for this condition. On average, patient PHQ scores improved 31%.

The VR-12 is a health-related quality of life survey that summarizes both physical and mental health functioning. Patients in IOCP saw a 4.2% increase in mental functioning and 3.3% increase in physical functioning. Any increase in these scores are particularly noteworthy as they typically decline in senior populations with a high burden of chronic illnesses.



### ***Cost and Utilization***

A program-wide actuarial analysis of a sub-set of patients continuously enrolled for at least nine months showed a significant reduction in inpatient utilization and emergency department use as a result of the program intervention, although actuarial analysis cannot distinguish the proportion due to the intervention versus regression to the mean.

Many of the delivery systems performed their own internal analyses. Perhaps most telling, once the grant program ended, 90 percent of participating delivery systems continued the core elements of the program for Medicare patients and 15 of 23 expanded programs into their commercial populations by July 2015. Some program elements varied, most notably caseloads for care coordinators which averaged 80 – 120 for Medicare patients and 200 for commercial patients.

### ***Scalability***

The care model guardrails were successfully adapted across a wide variety of provider settings – from rural IPAs to urban medical centers. The location of care coordinators varied depending on setting, but in all cases, a close working relationship with primary care clinicians supported success of the program.

Patient engagement is crucial to success. The patient engagement rate (defined by completed initial assessments and face-to-face visit) averaged 76%, and varied across the delivery systems from 30% to 99%. Best practices include care coordinators establishing the face-to-face relationship in the hospital prior to discharge, or starting the face-to-face relationship in the office with the PCP.

Ultimately, the program had a lasting impact on changing the way the participating providers practice medicine, and the way patients care for themselves.