Complex Puzzle:
How Payers Are Managing Complex and Chronic Care

California HealthCare Foundation

ISSUE BRIEF

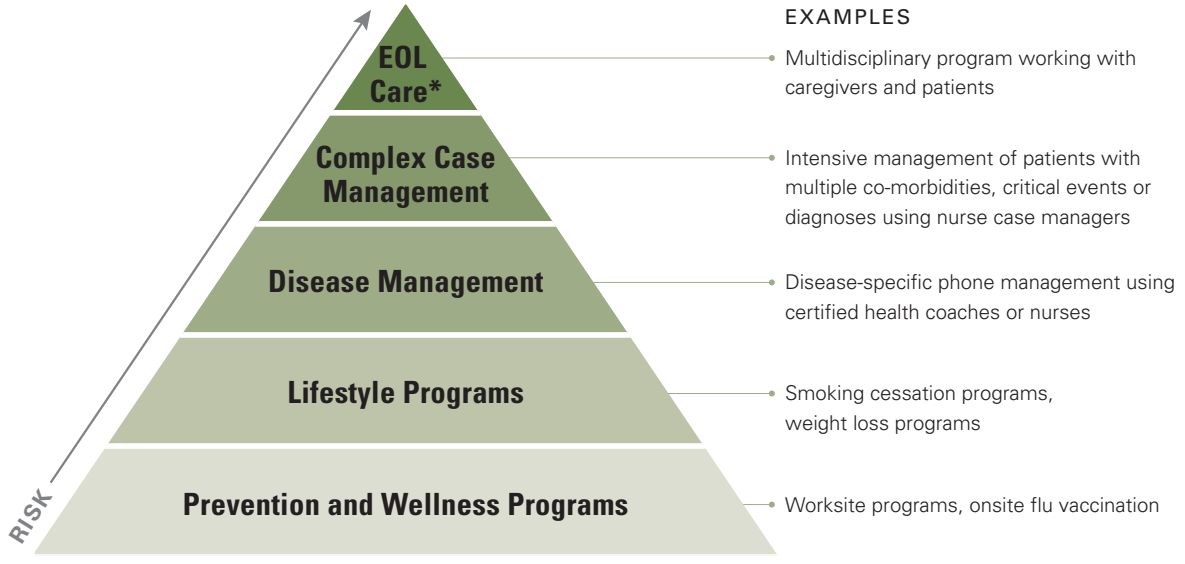
Introduction

As the prevalence and associated cost of chronic diseases continue to grow in the United States, stakeholders in health care, including payers, are grappling with how to better manage the care of patients with these conditions. Payers have designed disease management (DM) programs for members with common chronic diseases, and complex case management (CCM) programs for patients who experience a critical or traumatic health event, or who have highly complex and high-acuity diagnoses.

To better target and engage appropriate patient populations, and to adapt to the market and regulatory changes resulting from the Affordable Care Act (ACA), these programs are currently being reevaluated, and redesigned. In addition, payers have increasingly moved toward offering a suite of total population management programs — including wellness and prevention programs, lifestyle programs, and end-of-life care. DM and CCM are part of this suite of programs (see Figure 1).

In light of these trends, representatives from commercial payers and Medi-Cal managed care plans were surveyed to examine how payers arrange for DM and CCM programs, design programs to target patients and engage them in the management of their own health, and conduct program evaluations. This report summarizes the study findings and considers how health reform is affecting these programs.

Figure 1. Examples of Care Management Programs



*End-of-life care may be considered part of CCM or may be a separate program.

Source: Booz Allen Hamilton, 2012

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Background

The prevalence of chronic diseases in California and in the nation, and the associated costs of caring for patients with chronic conditions, are on the rise. For example, the percentage of Californians diagnosed with diabetes has climbed steadily over the past decade, rising from 6.4% in 1990 to 8.9% in 2010.[1] Forty percent of Californians have one or more chronic conditions, and approximately 20% (about 7.5 million) have two or more.[2] In California, individuals with two or more chronic conditions account for 60% of public and private health care expenditures.[3]

Disease management and complex case management programs are not new concepts in care delivery. Providers and payers have been experimenting with ways to help patients monitor and manage diabetes since the 1980s. By the mid-2000s, new disease management organizations (DMOs) were established and worked actively with payers and purchasers to design programs that analyzed data, identified populations that could be targeted for care management programs such as DM or CCM, assisted with member outreach and enrollment, and delivered a range of services, such as condition-specific educational materials and phone-based health coaching. In 2005, approximately 95% of all payers offered some form of disease management program to purchasers.[4]

Though DM programs are widely implemented, their success in managing conditions and controlling costs has been inconsistent. As purchasers, payers, and researchers have evaluated these programs, they have found that a program's success is highly dependent on who is targeted, how the program is designed, and how success is measured.[5] Medicare's DM and care coordination demonstrations showed that on average, such programs yielded no effect on hospital admissions.[6] However, programs in which care managers had in-person interactions with patients and coordinated closely with physicians were more likely to reduce hospital admissions.[7] Analyses of other programs showed that certain DM and CCM programs targeting populations at high risk for hospitalization were successful in reducing hospitalizations and were cost-effective.[8] Despite these mixed results, in 2012, over half of employers believed that the use of DM programs was an effective strategy to contain costs.[9]

Health reform and the changing landscape of health care financing and delivery promise to have a major impact on DM and CCM programs. Payment reforms, which include financial incentives to providers for population management, are intended to better align payments with health care outcomes — including for those patients with chronic conditions.

Definitions

While there are multiple definitions of disease management and complex case management, all current definitions reflect a shift from programs that manage a patient's singular condition or episode, to those that manage the whole person. The study team used the National Committee for Quality Assurance's (NCQA) definitions of these terms.[10,11]

Disease management. A system of coordinated health care interventions and communications to help patients address chronic disease and other health conditions.

Complex case management. The systematic coordination and assessment of care and services provided to members who have experienced a critical event or diagnosis that requires the extensive use of resources and who need help navigating the system to facilitate appropriate delivery of care and services. (Diagnosis may mean diagnosis of multiple comorbidities or progression of a condition to a point of severity that would require extensive use of resources.)

While most payers agreed that the NCQA definition of complex case management was consistent with their use of the term, certain payers stated that they use the terms "complex case" or "specialty case" management only for highly specialized or catastrophic cases such as transplant patients, newborns in a neonatal intensive care unit, and patients with traumatic brain injury. However, even these payers have programs that address the needs of individuals who fall into the highest-risk categories, who have multiple comorbidities, and who need a more holistic approach for addressing their complex health care needs. In general, payers agreed that CCM is considered a more intensive type of intervention than DM, involves a high-touch relationship between case managers and the patient, and requires increased care coordination among multiple providers.

From a Commercial Payer Perspective

Payers use various methods to arrange for and design their DM and CCM services and programs. "Arrangement" refers to how the payer makes DM and CCM programs available to members; for example, payers may contract with an external vendor or they may conduct the program in-house. "Design" refers to the features of the programs themselves, including member identification and stratification, member outreach and engagement, and provider engagement.

Because Kaiser Permanente's care delivery model is substantially different from that of other payers, and their care management programs are inextricable from their integrated delivery model, Kaiser Permanente is not discussed in this paper (see sidebar).

Kaiser Permanente

Kaiser Permanente (KP) is an integrated care delivery system covering approximately 7 million people in California. KP's DM and CCM programs are unique in that they are integrated at the delivery level and are considered a part of KP's overall care management philosophy, which emphasizes patient empowerment, prevention, and evidence-based practice.

KP accesses claims and clinical data through their electronic health record called KP HealthConnect. KP HealthConnect also integrates clinical decision support and evidence-based clinical care guidelines. Kaiser's Care Management Institute conducts research to determine evidence-based practices for care delivery and disseminates these guidelines to providers.

KP identifies patients by using risk scores from predictive modeling, queries of its registry database, and physician referrals. All members are included in KP's approximately 20 registries that are refreshed weekly. The registries track patients who receive preventive health services like the flu shot and those who have specific diseases. Algorithms are used to query the registries to identify gaps in care. Predictive modeling tools examine data, such as the number of emergency department visits and the number of hospitalizations, to predict use patterns, such as readmission. Also, care managers access a physician's panel of patients to identify members who may be missing needed care and to target those with specific conditions, such as heart failure.

KP attributes its success in outreach to the trusting relationship that members develop with their doctors. KP tailors outreach to each patient. Those outreach methods include telephone, text, secure messaging via email, and mail. Electronic health record access is provided by secure website and mobile application platforms. Patients can access a personalized care plan that includes condition- and age-specific recommendations for self-monitoring and management, including educational information and videos. KP's CCM programs vary by region but are led by the patient's physician and generally executed by a registered nurse and augmented by other team members such as social workers, with the goal of helping patients learn self-management skills.

DM and CCM Program Arrangements

Two-thirds of the California payers surveyed provide their DM and CCM program in-house, while the remaining contract with DMOs. This marks a change since 2005, when 47% of national payers conducted their DM internally and 49% contracted with DMOs.[12] The reasons for the shift to in-house programming are twofold: Some payers have purchased mature DMOs to bring their functions in-house, while other payers have developed their own internal capacity. All see in-house programming as a more direct and cost-effective means of providing DM and CCM services.

Most California payers reported that they had recently made significant changes to their DM and CCM arrangements either by taking these functions in-house, changing their DMO vendor, or by making contractual changes with their DMO. Payers interviewed cited different reasons for these changes:

- **Ease of administration.** One payer stated that it made more sense to use a single vendor for both DM and CCM to more easily track patients across programs and to reduce the potential for patients to "fall through the cracks" due to system differences among vendors and the payer.
- **Transparency of tools and processes used by the DMO.** Several payers stated that they were not comfortable when the algorithms used by a DMO to identify and stratify their population were not transparent to them. Payers wanted to understand the DMO's methods of stratification, for evaluation purposes.
- **Flexibility to customize programs for self-insured members.** Several payers stated that large self-insured purchasers often had specific demands and that it was important for payers to be able to develop programs tailored for these clients (for example, targeted workplace wellness programs).
- **Access to technology.** Two payers stated that they made changes to their DMO arrangement to take advantage of a DMO's unique remote telemonitoring capabilities (for example, blood glucose monitors, cuffs to measure blood pressure, and scales to monitor weight change).

Identifying Patients

To determine where to focus DM and CCM efforts, payers must first effectively identify target populations and then match them to the appropriate programs.

Patients can enter into DM or CCM programs through several methods: a recent diagnosis of a chronic condition; or referrals by primary care or treating providers, discharge planners, family members, caregivers, or for self-insured payers, the human resources department. Patients can also enter programs through identification of a gap in care, such as a failure to schedule or a missed follow-up appointment following discharge, a missed prescription refill, or a missed preventive screening or diagnostic test.

Payers also typically employ predictive modeling tools to identify and stratify patients who could potentially benefit from DM or CCM. Risk stratification through predictive modeling is a statistical technique of analyzing data to predict which members may be at greater risk for high-cost care, especially hospitalization. Payers (or their DMOs) participating in this study either used modified, off-the-shelf products or developed their own tools. Payers emphasized the importance of using these tools to find "the right patient at the right time" to take action to improve care outcomes. Evaluations reveal, however, that predictive modeling tools are unable to predict the majority of cases that lead to high resource use or cost.[13] The payers interviewed said that the ability of the modeling tools to accurately identify high-risk patients ranged from 4% to 23%.[14] There are multiple predictive modeling systems and tools available in the market (see sidebar on page 5).

Predictive Modeling Tools

Predictive modeling tools are statistical software packages that use algorithms to analyze patients' risk factors to predict their future need for care. Some algorithms used by the tools are proprietary. Four commonly used predictive modeling tools are described below:

Johns Hopkins Adjusted Clinical Groups System is diagnostic-based and primarily relies on diagnostic and pharmaceutical code data and demographic data in claims to measure the morbidity burden of patient populations. It was built using commercial and state Medicaid data and is mainly used for the commercial population.

Verisk Health's DxCG Predictive Modeling Tools are primarily diagnostic-based and evaluate all coded diagnoses to create a hierarchy of classifications of diagnostics to predict cases at higher morbidity risk. For example, a patient with Type 2 diabetes but no symptoms will be ranked lower on the hierarchy than a patient with Type 2 diabetes and renal manifestations.

Charlson Comorbidity Index-Based Tools are diagnostic-based tools containing about 20 categories primarily using diagnoses codes. Each category is assigned a weight, and the weight is adjusted based on other conditions (e.g., complications). The overall comorbidity score reflects the cumulative increased likelihood of one-year mortality.

Optum Impact Pro is an episode-based predictive modeling tool that forecasts future risks and costs, assigning members to risk groupings. Impact Pro draws from available sources such as enrollment, medical and pharmacy claims, and lab data to predict risk.

Claims Data

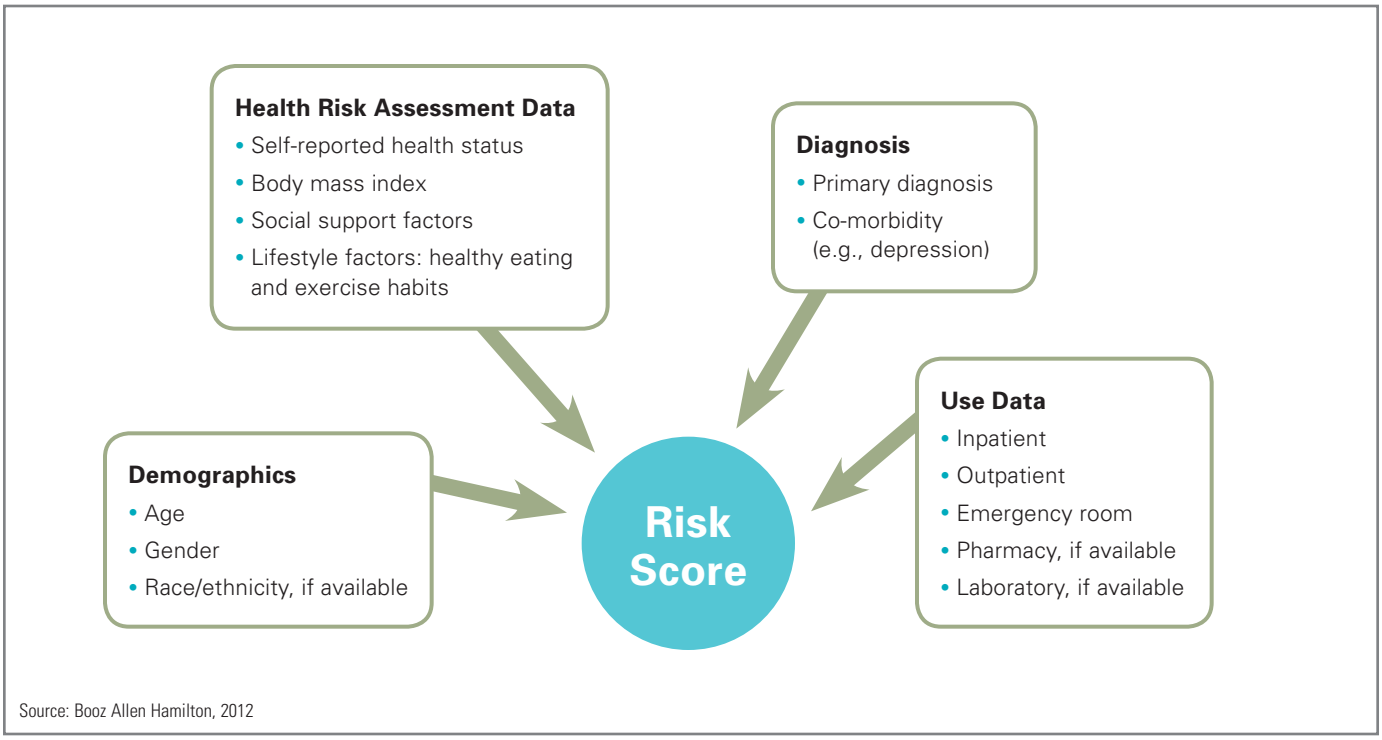
For DM programs, almost all payers relied on claims data as the primary source of input data. The predictive modeling tools typically use inpatient and outpatient claims, emergency department visits, pharmacy claims, and lab claims (if available), to generate a risk score for every member. For subpopulations, such as employees of large self-insured employers, payers augment claims data with information from health risk assessments. Payers typically run claims data through the tools frequently, usually weekly or monthly. (See Figure 2 on page 6.)

Real-Time Hospitalization Data

For CCM programs, timely identification of patients during an acute care event is critical. One payer stated that they obtain daily electronic feeds from all hospitals in their California-wide network; the data collected include inpatient admissions, discharges, and lengths of stay for patients remaining in the hospital. Daily feeds allow the payer to run a specific predictive model to determine the risk of a particular patient being readmitted. The frequent feeds provide payers with a rich data set to use to predict risk.

For patients who are hospitalized and who may be candidates for CCM, initial outreach is usually conducted either while they are still in the hospital, upon discharge, or immediately after discharge. Doing so increases the chances of patient enrollment into the CCM program and engagement throughout the program. One payer engages the top 1% identified as highest risk when the patients are still hospitalized, contacting patients at their bedside.

Figure 2. Potential Inputs to Generate a Risk Score



Source: Booz Allen Hamilton, 2012

Health Risk Assessments

Payers work with their large self-insured employers to provide annual health risk assessments (HRAs) to their employee populations to better understand the health risk of these populations and to provide data that claims sources cannot capture. HRAs gather information about comorbidities (e.g., cancer, heart health, diabetes, depression), lifestyle factors and physical activity (e.g., stress and coping, nutrition, fitness), safety and patient environment (e.g., domestic violence), and weight. One payer reported that they strongly encourage their purchasers to offer employee incentives for completing HRAs so the payer has the data necessary not only to model risk scores for their total population but so they can offer customized services and help create a culture where employees and members are aware of factors impacting their health status.

Program Design

Once patients have been identified, payers deliver their DM and CCM services by engaging both patients and providers in care management programs. Programs generally involve a case manager who works with the patient to develop and attain health-related goals.

Patients with Specific Chronic Conditions

All of the commercial payers interviewed have DM programs to address the "big five" chronic conditions: congestive heart failure (CHF), diabetes, chronic obstructive pulmonary disease (COPD), asthma, and coronary artery disease (CAD).

Payers also offered specific programs for other conditions, including muscular skeletal disorders (e.g., lower back pain, osteoarthritis), metabolic syndrome, mental health conditions (e.g., bipolar disorder, major depression), and renal disease.

All payers agreed that unlike DM programs of the 1990s and early 2000s, their current programs are not intended to operate in silos where each disease is managed separately and case managers do not coordinate. Rather, payers' current DM programs are intended to be holistic and integrative, addressing the care needs of the entire person rather than just their primary chronic condition.

Last year, one payer launched a new version of their DM offering in response to feedback that under the previous program, services were separated, and members with multiple chronic conditions received calls from multiple programs. Their new program is integrated and uses a single coaching model.

Enrolling Patients

While all payers relied primarily on phone outreach to enroll targeted patients into their programs, they also identified the challenges of this method: outdated or disconnected phone numbers, system input errors, the decline of landline phone use, and the initial unwillingness to converse with a plan representative because of assumed financial motives.

Success of patient enrollment varied among payers. One payer stated that while 30% of their population may be targeted for DM, fewer than 20% of those targeted are actually enrolled in the DM program. Another payer representative estimated that their enrollment rates were closer to 10%.

Engaging Patients

Once a patient is enrolled, a DM or CCM program staff member — a trained coach or advocate — works with that patient to understand the behaviors, health status, and other risk factors that act as barriers to the patient's self-care. Detailed health assessments are taken upon enrollment into a DM or CCM program (which are different than the HRA provided to a population upon enrollment into the health plan) and are customized based on the patient's condition. The assessments help the coach or advocate determine the patient's baseline understanding of his or her condition and also help in setting care plan goals, which is the next step to ensuring engagement and empowering patients to be actively involved in their health care.

The coach or advocate works with the patient to establish goals, which can include:

- Improving knowledge and ability to manage conditions
- Improving medication adherence
- Achieving stable lab values
- Completing appropriate screenings
- Modifying eating behaviors
- Modifying exercise patterns

For example, goals for a newly diagnosed 50-year-old patient with Type 2 diabetes might include establishing an understanding of the disease and its progression, having well-managed HbA1c levels, and learning how to use diabetes testing and monitoring equipment. An engagement plan would include a specific number and frequency of coach or advocate calls and the mailing of additional educational materials.

Payers are seeking new and innovative ways to improve overall patient engagement, which is one of the most challenging aspects of DM programs. As a core offering of their DM programs, two payers remotely monitor members with devices, such as blood pressure cuffs and scales. The data collected by the devices are followed closely, and if there is a change that warrants a clinical intervention, such as an increase in weight for a CHF patient or a high blood pressure reading for a CAD patient, a nurse calls the patient to verify the reading and to discuss care management steps. Two payers are testing small pilot programs using telemonitoring devices coupled with text messaging and mobile applications. In one pilot,

participants can both receive and respond to text messages from the mobile application so compliance with the care plan can be tracked.

All of the payers interviewed reported that they use motivational coaching as a key strategy to maintain patient engagement. A one-on-one relationship is developed between a coach and a patient, who work together on goals and an engagement plan. Coaches give members the tools they need to be confident about their own self-management and work with patients to improve their health literacy. They present patients with realistic, incremental steps to modify behavior and develop healthier habits; and recognize intermediate achievements. Coaches work with family members and other caregivers if additional support is needed and "graduate" members when they meet their goals.

Payers also use traditional low-touch methods of outreach, such as mailing their members newsletters and condition-specific packets of information. Payers use these methods upon patient identification and also for lower-risk patients and patients who have not responded to phone outreach. Also, all payers reported having a 24-hour inbound nurse phone line available to members in DM or CCM programs; a subset of payers has a line dedicated specifically for patients in the DM and CCM programs.

Engaging Patients in CCM Programs

Patients in a CCM program typically experience greater frequency and intensity of contact from their care managers. One payer conducts an in-person assessment at the patient's home. This practice allows care managers to not only meet patients and caretakers face-to-face, but also to identify environmental factors such as fall risk and household conditions. This payer emphasized the importance of the in-person assessment in understanding nonmedical barriers a patient may be facing. Another payer reported using video conferencing through a secure line, which allows nurses to see patients in their environment and fosters trust. To ensure appropriate engagement during the crucial time of care transitions, case managers contact patients to confirm they have been supplied with discharge instructions.

Patients tend to spend less time in CCM programs than in DM programs. Upon completion of a CCM program, patients may, for example, be transferred to a DM program to help with management of a chronic condition or to hospice for end-of-life care. One payer reported that up to 15% of members die while in the program, and another payer reported that the average duration of enrollment in a CCM program was about 70 to 90 days. A patient's progress is typically evaluated after 90 days. While graduation criteria for both CCM and DM programs are similar, CCM graduation criteria may also include documentation of advance care directives and obtaining appropriate durable medical equipment.

Engaging Providers

All payers agreed that they could do better at provider engagement, which is especially important in CCM programs that often have coordination needs across settings and provider types (e.g., inpatient and rehabilitation). Primary methods of provider engagement include:

- **Identifying eligible patients.** Payers create reports for the treating provider or primary care physician that lists patients in their panel who have chronic conditions and/or risk scores indicating eligibility for DM or CCM. Payers may request that the provider call the patient directly or ask the patient about these programs during their next visit. Payers speculated that if patients received encouragement from their treating physicians, they might respond to the payer's attempts to enroll them.
- **Alerting providers about clinical gaps.** All payers reported having mechanisms — primarily through faxes — to alert physicians about significant gaps in care. These alerts are also intended as provider support tools, to help providers understand the

reasons for gaps in care and to ensure that these gaps are ultimately closed.

- **Establishing provider portals.** Most payers have established electronic portals where providers can log on and view a patient's clinical activity, such as prescription refills and lab results. Providers can view the patient's assessment with the health coach or nurse and also look at the care plan and goals. Providers may also input information for coaches or nurses to view.

The level of provider engagement depends on the provider-payer relationship, the sophistication of health information technology and communications systems at the provider's disposal, and perceived or real duplication of services. In general, except for billing and administrative data flowing from the provider to the payer, communication regarding disease management activities flowed in one direction: from the payer to the provider. Payers, however, did report receiving referrals from providers.

All payers agreed that provider engagement and activation is an area ripe for improvement. Payers recognized that most providers are not financially compensated for time spent on activities other than direct patient care, such as care coordination and management. These barriers may diminish under health reform, as payment becomes tied to outcomes, and as payers and providers are provided with better incentives to collaborate through new delivery models such as accountable care organizations (ACOs).

Some payers suggested that making care support functions part of the workflow for providers would maximize efficiency and effectiveness at the point of care delivery. For example, providers could use decision support tools with built-in, evidence-based resources and patient-specific data. Providers, however, may experience fatigue when faced with yet another program that aims to cut costs and improve outcomes. Furthermore, fundamental changes to support this kind of care delivery will require process and IT system (re)engineering.

Key Differences for Medicare and Medi-Cal Programs

Both Medicare and Medi-Cal populations would benefit from improved chronic disease care. A study from the Chronic Condition Data Warehouse, which contains Medicare fee-for-service data, found that 50% of beneficiaries have one or more chronic conditions, and a quarter of beneficiaries in the cohort suffered from diabetes.[15] Also, recent studies show that chronic conditions account for much of the growth in Medicare spending from 1987 to 2006.[16] Nationwide, more than half of all adult Medicaid enrollees have a chronic or disabling condition.[17] In addition to the high prevalence of chronic conditions, nonelderly Medicaid adults often have comorbid conditions and complex care needs.[18] States adopt care management programs such as DM and CCM to both improve quality and reduce costs for Medicaid enrollees.[19]

Many aspects of Medicare and Medi-Cal DM and CCM programs are similar to those in commercial programs. There are a few key differences, however, stemming from the makeup of the patient populations and the administration of the programs.

Medicare

This discussion focuses on payers with Medicare Advantage contracts.[20] Some Medicare payers use an external vendor such as Alere, while other payers conduct their DM and CCM in-house (see Appendix C). One payer stated that the reason for conducting their DM and CCM functions internally was that it was fundamental to their mission as a social HMO to provide high-level "customer intimacy."

Identification and Stratification Processes

One payer described the process they use to identify and stratify Medicare members. They examine the disease stage to determine which program would be most helpful: Newly diagnosed CHF patients may not yet need a DM program to manage their care, and patients with end-stage disease may benefit more from palliative care than from DM. This payer also uses senior-specific information that could impact health status for CCM eligibility, such as loss of a caregiver or spouse or an unstable living situation. The payer also considers the member's ability to participate in a program: Can the member communicate via phone? Is the member able to use a bathroom scale?

Targeted Conditions

Medicare DM programs target slightly different conditions compared to the "big five" conditions addressed by commercial programs. One payer reported that asthma management was not offered as part of their Medicare programs since asthma does not affect a large majority of seniors (i.e., it is either well-managed or a patient manifests a higher-acuity pulmonary condition that requires management). Another Medicare payer indicated that they do not operate a diabetes management program under DM, since an elderly person with diabetes that is not well-managed would likely qualify for the CCM program that is not condition-specific. This payer said that given their frail elderly population, their DM programs tend to be more intensive — more frequent contact by case managers, more time spent on the phone with case managers, greater use of devices such as telemonitoring devices — than traditional DM programs.

Health Assessments

Two payers viewed health assessments as particularly important for their Medicare populations and require that all seniors receive one. One of these payers reported that 70% of seniors who were asked to complete the health assessment did so. These payers include a discussion of end-of-life care and advance care planning in their health assessments, and members are asked to consider their end-of-life goals and plans. One payer noted that doctors' reticence to discuss this topic is a barrier to effective and appropriate care for their Medicare population. All Medicare payers involved in this study reported that they discuss palliative and hospice care with patients, since hospice is a benefit covered under Medicare for terminally ill patients.

Outreach and Engagement Strategies

There are important differences in outreach to and engagement of the Medicare population. These frail and elderly patients often have more intensive needs than the non-Medicare population; however, they may be easier to reach via phone. One payer uses Master's degree–level social workers or gerontologists, in addition to nurses, to conduct an initial health assessment upon enrollment. This payer reported that all members receive phone calls from a nurse, and the frequency of this outreach is tailored to the patient's care management plan.

In general, payers reported that Medicare patients were more likely to engage with their case managers over the phone compared to commercial members. Payers speculated that compared to the commercial population, Medicare members may have more time to speak on the phone, may be more accustomed to phone conversations than their younger counterparts, and may have a more positive view of health plans. Several payers provided anecdotes of the bonds that Medicare patients developed with their care managers, especially in CCM programs. While this relationship-building could result in the patient being enrolled in the program longer than necessary, it also helps to ensure that the patient stays on track in meeting care goals.

In addition to traditional, low-tech outreach methods, one payer talked about wanting to integrate social media into the case management programs of their Medicare members. They are developing a strategy to expand their phone services to include newer technology-driven interfaces with members.

Medi-Cal

The majority of Medi-Cal managed care plans included in this survey reported using an internal group to deliver their DM and CCM programs. Health Net is the only Medi-Cal managed care plan to use a DMO, McKesson (see Appendix C).

Targeted Conditions

Major differences in Medi-Cal DM and CCM program design and delivery stem from differences in disease prevalence and demographics. Studies indicate that asthma disproportionately affects low-income individuals; as a result, Medi-Cal spends $400 million treating this one condition.[21] One payer identified asthma as the most common condition in their Medi-Cal DM programs.

Under the Medi-Cal program, mental health is administered separately, or carved out. While CCM and DM programs usually do not comprehensively address mental health needs, payers reported that their care outreach teams have talking points around depression and can help refer patients to appropriate services. They said that care coordination with the county for mental health care is a challenge as the contracting mental health providers do not have any obligation or mechanism to provide health information back to the Medi-Cal managed care plan.

Patient Engagement

Medi-Cal managed care plans face particular challenges in patient engagement. Medi-Cal patients often move frequently, lack phones, or have outdated and incomplete information in their records.[22] Additionally, despite efforts by counties to minimize the rate at which individuals lose and regain coverage over short time periods, many enrollees do lose their Medi-Cal coverage, which leads to associated gaps in care.[23] This complicates patient engagement, as patients may not spend enough time in a plan to connect with and trust their case managers.

In addition to the traditional patient engagement tools, payers use specialized engagement methods to reach their Medi-Cal populations. One payer conducts outreach through community resource centers in the larger counties, such as Los Angeles and Fresno. Nonlicensed staff members contact patients and inform them that outreach is underway and that they should expect a phone call from a health coach. Another payer encourages patients to remain engaged in their health by sending them newsletters and educational pamphlets even after their graduation from programs.

Program Metrics and Evaluation

Payers regularly evaluate their DM and CCM programs to help improve their understanding of the factors that might increase engagement rates, improve integration with providers, improve performance, and demonstrate to public programs and private purchasers the value of DM and CCM programs. Payers reported evaluating their programs every 12 to 18 months. They use a range of evaluation tools:

- **HEDIS measures.** All payers use the Healthcare Effectiveness Data and Information Set (HEDIS) performance measures established by NCQA. Payers use these scores to measure performance internally and to report to commercial purchasers and public programs such as Medicare and Medi-Cal. HEDIS measures cover a variety of chronic and acute conditions.
- **Surveys.** Payers conduct their own evaluations, such as plan-administered patient satisfaction surveys, to assess a program's patient engagement rates. One payer representative stated that her plan asks its CCM graduates to evaluate their case managers. This evaluation helps assess case managers' abilities to deliver holistic care, empower the patient with the necessary tools for self-management, and provide care that is culturally competent.

- **Financial analysis.** Self-insured employers and purchasers ask payers to validate that DM programs help control costs — for example, by requesting a return on investment analysis or a rate of return per dollar spent. Payers conduct financial calculations of the program cost and the cost offsets that result in reduced use, such as avoided emergency department visits or reduced inpatient admissions.

Evaluation metrics provide a basis for payers to select a DMO and to develop contract provisions. For example, contracts may include performance guarantees that are tied to HEDIS scores. DMOs that cannot demonstrate improvement or consistently high thresholds of performance may not receive incentives available from the payer, and consistently low performance may lead to contract termination. Payers have become more sophisticated at using outcome measures as part of their performance guarantees. For example, instead of rewarding the volume of calls placed or the number of patients reached, the focus has shifted to patient engagement rates and improved quality as demonstrated by HEDIS scores.

The Centers for Medicare and Medicaid Services (CMS) and the California Department of Health Care Services, under Medicare and Medicaid rules and regulations, require payers to conduct chronic condition management for Medicare Advantage and Medi-Cal managed care plan members. Payers are therefore required to demonstrate compliance during the contracting phase and during audits. Medi-Cal managed care plans are evaluated based on HEDIS scores, and contract renewal depends not only on the program design but also on high HEDIS scores.

Effects of Health Reform

The ACA includes several provisions to improve population health and health outcomes, and to lower costs. Several ACA provisions pertain specifically to chronic condition care and management:

- Alignment of financial incentives to promote primary care and chronic condition management through enhanced reimbursements and grantmaking. Under the Medicaid Incentives for Prevention of Chronic Diseases program, California applied for and received a grant to encourage Medi-Cal members to quit smoking and to better manage their diabetes through phone counseling.[24]

- Specific reporting requirements for payers "with respect to payer or coverage benefits and health care provider reimbursement structures that improve health outcomes through the implementation of activities such as quality reporting, effective case management, care coordination, chronic disease management, and medication and care compliance initiatives."[25]

- Coverage standards under essential health benefits (EHBs), which are specific categories of benefits to be covered by qualified health plans sold in the exchange and by plans in the small group and nongroup insurance markets outside the exchange beginning in 2014. EHBs include coverage of "prevention and wellness services and chronic disease management."[26]

New Federal Programs

The ACA also includes incentives to improve health care delivery and care coordination and to reform payment by focusing on the value of services (including outcomes and quality) rather than the volume of services. Medicare providers can be eligible to receive financial rewards or face financial penalties under several federal programs created by the ACA: the Pioneer Accountable Care Organization initiative, Medicare Shared Savings Program, and the Hospital Readmission Reduction

Program. These programs are driving the market to create formalized relationships between providers and payers to collectively account for the consequences of mismanaged care. Medicare Advantage payers also have additional incentives to improve population health management, such as bonus payments tied to new quality indicators, including smoking cessation, medication adherence, and body mass index management.

Increased scrutiny on a payer's medical loss ratio (MLR), or the proportion of premium dollars they spend on medical claims or quality improvement activities, has also placed pressure on payers to demonstrate that DM and CCM programs are not administrative programs but are programs essential for health care delivery and management. Payers argue that robust DM and CCM programs are essential to comply with the ACA's MLR requirements.[27]

Payers generally agreed that the current environment under health care reform creates additional motivation and pressures to evaluate, restructure, and redesign their DM and CCM programs. Two payers that recently changed their DM strategy from separate, condition-specific programs to holistic approaches were motivated in part because of the ACA's incentives to improve care coordination and management.

Accountable Care at the Delivery Level

The current environment under health reform provides further motivation to consider mechanisms to better integrate disease management and complex case management at the care delivery level. Payers developing ACO strategies stated that the new risk-based or shared-savings arrangements with providers help to address the issue that providers are typically not financially compensated for time spent on care coordination and management. Thus providers in ACO arrangements have the incentive to be activated and engaged partners. In addition, providers that choose to enter an ACO relationship will typically have the health information technology infrastructure, patient engagement expertise, and analytic capabilities to conduct care management directly.

Payers in ACO arrangements were asked if they delegate their DM or CCM functions to the provider. These payers were reluctant to completely delegate and have a hands-off approach to these functions. One payer representative stated that he would characterize the payer's relationship with the ACO provider partner as "coordinating DM and CCM functions rather than delegating them." He described their payer's care coordinators as being embedded with the provider group to conduct case management as an integrated member of the physician's team.

Payers stated repeatedly that they were reluctant to delegate these functions because they are still responsible for meeting NCQA standards, and very few providers have the scale and capability to conduct the data analysis and predictive modeling activities necessary to reliably identify patients eligible for DM and CCM. In addition, few providers have large-scale outreach and enrollment capabilities, such as the ability to conduct mass telephone outreach. Payers believe they can constructively partner with providers to give them the tools needed to better understand their panel, risk-mix, and use trends, and to identify patients who are at high risk for condition deterioration. The drive toward better integration with the physician and the movement to provide care management closer to the point of care is the future direction of DM and CCM.

Key Considerations

To better meet the needs of the growing population of Californians with multiple chronic conditions, payers might consider fine-tuning their care management programs to:

- Use analytic tools to better identify the population that would most benefit from these programmatic interventions.
- Adjust the program design to engage and activate the patient by experimenting with a wide range of tools — including low-touch technological solutions, such as mobile applications and text messaging, and high-touch, in-person coaching or case management.
- Leverage changes in the market resulting from health reform activities to better integrate DM and CCM programs with the treating provider or primary care provider. This would include using contracting arrangements to better align financial incentives and outcome measurement, and experimenting with a wide range of provider engagement tools such as operational health information exchanges, provider portals, and the embedding of care managers.

DM and CCM program development and delivery continues to be dynamic. Despite mixed success in the ability of these programs to bend the cost curve and to improve outcomes, payers and public and private purchasers agree that fragmented and uncoordinated care is not an option.

About the Authors

Susan Philip, MPP, and Sophie Miller, MPH, are health care and management consultants with Booz Allen Hamilton. Booz Allen Hamilton, founded in 1915, has 96 years of experience in strategy, management, and technology consulting for the public and private sectors.

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About the Foundation

The California HealthCare Foundation works as a catalyst to fulfill the promise of better health care for all Californians. We support ideas and innovations that improve quality, increase efficiency, and lower the costs of care. For more information, visit us online at www.chcf.org.

Appendix A: Contributors

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Appendix B: Methods and Approach

To conduct this analysis, Booz Allen used a key informant interview method. Data gaps were augmented by literature review and publicly available, reliable sources. Figure 3 illustrates the six steps undertaken for this project.

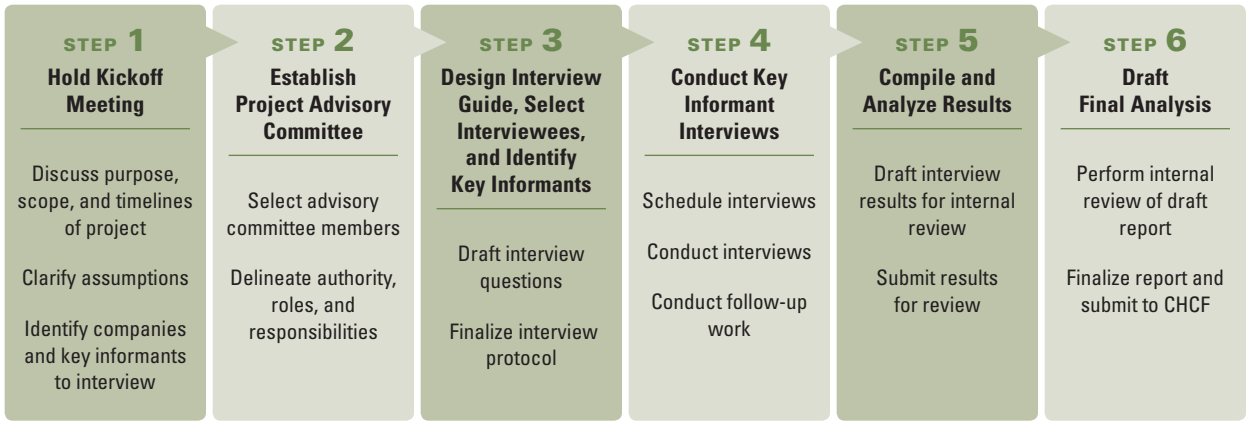
Steps 2–4 are explained in detail in this section.

An advisory committee (Step 2) was established to provide input on the methodology and content of the interview guide and to assist the project team in contacting alternative interviewees if a selected interviewee was unavailable. Individuals on the advisory committee represented payers, purchasers, providers, and Medi-Cal. The advisory committee was not a governance body but rather was formed to help ensure that the questions in the interview guide were appropriate for the audience and would help the project team obtain the information necessary for analysis.

The interview guide (Step 3) was designed to capture the following qualitative elements:

- Perceived trends in DM and CCM, especially in the context of health care reform. Key insights about their own reform-readiness roadmap and strategy. Focus on patient-centered models of health care delivery transformation.
- Methods for population stratification and program design. Probes program design, including eligibility, program delivery structure, and methods.
- Key insights on how evaluations feed into business decisions on program structure (e.g., in-house DM or contracting with DM vendor).
- Differences in Medicare, Medi-Cal, and commercial programs.

Figure 3. Summary of Research and Analytic Approach



Source: Booz Allen Hamilton, 2012

In addition, the data request was designed to capture quantitative data, such as total population enrolled in a DM and CCM program. The informants provided rough estimates in response to data requests (e.g., rounded to the nearest percentages). Few were able to provide detailed responses to the data request due to time, data, and other resource limitations.

Selection of interviewees (Step 3) was based on the payers' market share. Key informants were defined as those who were both knowledgeable and authorized to speak on behalf of the organization. The top seven commercial payers and the top five Medi-Cal managed care plans were initially targeted for participation in this study. Final participating payers represent approximately 75% of the commercial market, 50% of the Medi-Cal managed care market, and 50% of the Medicare Advantage market. In addition, this study included the perspective of CalPERS and a disease management organization to further represent the purchaser perspective.

Key informant interviews (Step 4) were conducted. Information obtained during interviews prompted the team to adjust the interview guide based on informants' areas of expertise and the population or program being discussed. Informants were knowledgeable about their area of focus and appropriately deferred to other colleagues for discussion of business lines or markets outside of the original informant's area of expertise.

Appendix C: DM and CCM Arrangements in California, December 2012

COMMERCIAL PAYER	DM ARRANGEMENT	CCM ARRANGEMENT
Anthem Blue Cross	Internal: Health Management Corporation	Internal
Blue Shield of California	DMO: Alere	DMO: Alere
Cigna	Internal	Internal
Health Net	DMO: Alere	DMO: Alere
Kaiser Permanente	Internal	Internal
United Healthcare	Internal: Optum	Internal: Optum

Notes: Arrangements presented here are representative of the fully insured commercial population. Variation exists for the self-insured commercial population. They are also representative of major DM and CCM programs. Variation may exist for specific subpopulations or conditions (e.g., renal disease). Finally, they are representative of models where DM or CCM functions are not delegated. While several payers operate a delegated model where most care is delegated to a medical group, rarely are CCM functions delegated and even more rarely are DM functions delegated.

Source: Booz Allen Hamilton, 2012.

MEDICARE ADVANTAGE PAYER	DM ARRANGEMENT	CCM ARRANGEMENT
Anthem Blue Cross	Internal: Health Management Corporation	Internal
Blue Shield of California	DMO: Alere	DMO: Alere
Health Net	DMO: Alere	DMO: Alere
Kaiser Permanente	Internal	Internal
SCAN*	Internal	Internal
United Healthcare	Internal: Optum	Internal: Optum

*SCAN delegates DM and CCM functions to those providers with delegated risk for the total population. Sixty-five percent of the SCAN population is managed under a delegated model; therefore, SCAN assumes primary DM and CCM functions for the remaining 35% of the population.

Note: CCM arrangements presented here apply for most complex conditions. Vendors may be used for rare conditions, or conditions requiring highly complex care coordination (e.g. transplants). In addition, internal case managers may be used for high- to low-risk populations that might benefit from case management for episodic health needs. Arrangements presented here (except where noted) are representative of models where DM or CCM functions are not delegated.

Source: Booz Allen Hamilton, 2012.

MEDI-CAL MANAGED CARE PAYER	DM ARRANGEMENT	CCM ARRANGEMENT
Anthem Blue Cross	Internal: Health Management Corporation	Internal
Health Net	DMO: McKesson	DMO: McKesson
Kaiser Permanente	Internal	Internal
Molina Healthcare	Internal	Internal

Note: Arrangements presented here are representative of models where DM or CCM functions are not delegated.

Source: Booz Allen Hamilton, 2012.

Endnotes

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10. A nonprofit organization focused on improving health care quality that accredits and certifies health care organizations.
11. The Care Continuum Alliance is the primary organization that conducts DM and CCM advocacy, research, and promotion. Their definitions differ slightly from the definitions used by NCQA, such as an emphasis on empowering patients and self-care.
12. Matheson et al., *Realizing the Promise.*
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18. Ibid.
19. Claudia Williams, *Medicaid Disease Management: Issues and Promises* (Washington, DC: Kaiser Family Foundation, September 2004), www.kff.org.
20. In addition to Medicare Advantage, some payers offer special needs payers (SNPs) for Medicare beneficiaries who are dual eligibles, have disabling chronic conditions, or are in nursing homes. An extensive discussion of SNPs for the dual eligible population is not included in this paper.
21. Deana McRea, *The Impact of Asthma on Vulnerable Populations* (Lexington, KY: Council of State Governments, 2006), www.healthystates.csg.org.
22. See note 19.
23. Vicki C. Grant and Laura Heller, *Slowing Medi-Cal Churn: Counties Collaborate to Improve Efficiency* (Oakland: California HealthCare Foundation, November 2008), www.chcf.org.
24. ACA §4108.
25. ACA §2717(a).
26. ACA §1302(b) (1) (I)
27. In the large-employer group market, payers must spend no less than 85% of their premiums on medical care and quality improvement activities, and payers in the small-employer group and individual markets must spend no less than 80%.