

Attributes Common to Programs That Successfully Treat High-Need, High-Cost Individuals

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The United States has tried, and continues to experiment with, many different programs designed to provide better care for people with high needs and high costs. These programs include accountable care organizations, readmission initiatives, special needs plans, care transition programs, patient-centered medical homes, and many others. These programs have been evolving over the past 20 years with many of the initiatives based loosely on the Chronic Care Model developed by Ed Wagner and his colleagues.¹ We wanted to identify specific attributes of successful programs for this population.

Common Attributes of Successful Programs

In order to identify the attributes that successful programs have in common, we began by reviewing the peer-reviewed literature evaluating the various programs and subsequently identified over 1000 articles that were written about programs designed to treat adults with high costs and/or high needs in the United States. To be included in the review, the study had to involve 2 or more chronic conditions or a chronic condition and a disability.

However, we quickly realized that many programs being used to guide policy are not in the peer-reviewed literature. These include programs sponsored by the Medicare and Medicaid, Veterans Administration, private insurers or health plans, and doctors or hospitals. We used the information from both the peer-reviewed literature and the gray literature to: 1) identify specific programs that focus on high-need, high-cost individuals that were successful on at least 1 of the 3 triple aims (spending, satisfaction, clinical outcomes), and 2) to identify commonalities of success in these programs.

We became especially interested in why certain programs had varying levels of success in different settings and populations. We created a semi-structured interview guide and interviewed 45 programs that the peer-reviewed literature and/or gray literature identified as successful on at least 1 of the triple aims.

ABSTRACT

Using literature review and interviews, we have identified 8 attributes of programs, such as accountable care organizations, readmission initiatives, special needs plans, care transition programs, and patient-centered medical homes, that successfully treat high-need, high-cost patients. These 8 attributes—illustrated here with specific examples—are specific ways to target these types of individuals, promote leadership at various levels, emphasize interaction with the care coordinator, use data strategically to refine the program, update the program periodically, allow physicians to spend more time with patients, and promote interaction among clinicians and high-need, high cost patients and their families.

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Take-Away Points

Many of the attempts to design programs for high-need, high-cost patients have been unable to achieve even 1 of the triple aims. In this article, we examine the published literature, government reports, and reports by managed care organizations, hospitals, and physician groups to identify the commonalities of successful programs. The 8 attributes of successful programs we identified are: appropriate targeting of high-risk patients, inclusive leadership, appropriate sizing of program, adapting to local conditions, providing helpful feedback to clinicians, promoting interaction with patients and family members, fostering successful care transitions, and reducing the workload of clinicians. This article will allow policy makers to:

- Compare their programs to the attributes of successful programs.
- Assess if modifications to their programs are needed.
- Determine if they should partner with certain existing programs.
- Design the next generation of programs.

Commonalities of Successful Programs

Based on the literature review and the interviews, we identified 8 attributes that many successful programs shared. An example of each specific program that typifies each attribute is provided in the [Table](#).

Targeting

Many successful programs use 2 steps to identify which individuals to include in the program and who should receive special attention. Many unsuccessful programs enroll a high percentage of people who are unlikely to benefit from the intervention; for example, the enrollment of people with only a single chronic disease.² Second, some programs provide the same services to all people enrolled in the program; however, the more successful programs typically stratify program enrollees and provide additional services to certain high-need, high-cost individuals.³

Nevertheless, simply being high-need/high-cost is not always sufficient.⁴ Many patients have conditions that are not amenable to change. For example, some cancer patients may require expensive drugs and the drug use is appropriate for their condition. An intervention will not necessarily lower the spending for that person. Other patients are unwilling to comply with treatment protocols. Being able to identify those who are most likely to benefit from an intervention is an understudied area and may be responsible for the lack of success in many programs. The key is to identify those patients most amenable to change.

Leadership

Most successful programs have leadership at varying levels of the organization, not simply at the top. It is important that the leadership team span a wide range of clinical and operational disciplines, including physicians, nurses, social workers, pharmacy, and operations. Finding successful care managers and facilitating their relationship with other clinical practitioners and non-clinical

professionals, such as community health workers, is a critical role for leadership. The care managers must have the skills to be assertive when necessary, to understand the practice culture in the setting, and to maintain good relationships with physicians, other clinicians, and administrators caring for the patient.⁵ With this in mind, some programs have developed their own training programs for care managers.⁶

Interaction With the Care Coordinator

Some programs involve teams of nurses and social workers working remotely, primarily using the telephone or e-mail. Although some of these programs are successful, most are not, probably because they have not developed close relationships with the clinicians treating the patient, the patient and the family members.² Although the initial expense is greater, successful programs are more likely to have care coordinators located in the physician's office. Physical proximity is only a first step, however; it may be necessary for all clinicians, including specialists, to personally know each other. Developing an ongoing working relationship is important, and often this requires frequent face-to-face interactions about a specific patient, especially with specialty physicians.⁴ It was often more difficult to develop these personal relationships in large fee-for-service organizations, like academic medical centers or large hospitals, where there were a multitude of people treating the patient⁷; it was much easier in smaller multidisciplinary physician groups, where a care coordinator was embedded in the office, as well as in larger organizations like Kaiser Permanente, where teams of clinicians routinely worked together as a group.

Strategic Use of Data

Both electronic medical records (EMRs) and claims data have been utilized successfully in the treatment of high-need, high-cost individuals. The advantage of relying on EMRs is that the data is available in real time, which is often when the information is most actionable. However, EMRs are often not interoperable and, therefore, it is difficult to assemble a complete picture of the patient if the patient is receiving care at multiple sites. Claims data is often more complete, and the Medicare program has begun to provide claims data to programs on a monthly basis.

Providing timely data to the care team is vital.⁸ However, it is unclear how timely the data needs to be or exactly which data elements are the most critical. Many clinicians do not respond to cost information about individual pa-

tients or know how to respond to information about readmission rates. In addition, finding relevant data for high-need, high-cost patients is problematic because determining the appropriate care for them is challenging—most quality metrics focus on a single disease, not the ability to coordinate care for complex patients.⁹ Data customization for specific types of patients also presents a challenge. For example, people near the end of their life require a different data set from those with psychological or social issues, and a different data set from those undergoing a transition from one setting to another.

Interaction With Patients and Families

Successful programs seem to be more facile at interacting with patients and their families.¹⁰ In most successful programs, the care coordinator is located in the doctor’s office and has a wide range of clinical and social service responsibilities.¹¹ They often: 1) see the patient when he or she arrives to see the doctor and ask about their priorities for care, 2) make periodic home visits, 3) occasionally interact with the patient’s family, and 4) to some extent, interact with the specialists caring for the patient. Interaction with patients is especially critical during and following the hospital stay. A patient’s medications can change following physician and hospital visits, so it is often necessary for the care coordinator to explain the change in medications directly to the patient.

Also important are ongoing interactions with the social service programs since many high-need, high-cost high patients have disabilities that make it difficult for them to undertake routine activities of daily living. Both nurses and social workers seem to be successful care coordinators. In general, more in-person interaction between the patient and the care coordinator results in better outcomes and lower overall spending.¹² Remote monitoring programs are less likely to achieve the triple aim.² A paper synthesizing the evaluations of Medicare programs that treat the

■ **Table. Successful Attributes and Program Examples**

Attribute	Program Example
Ability to target high-cost, high-need patients	Medicare Coordinated Care Demonstration, the Washington University School of Medicine in St. Louis After a change in practice, care management efforts focused on patients deemed at greatest risk of hospitalization.
Create environment for successful leadership at all levels	Medicare Care Management for High-Cost Beneficiaries (CMHCB) Demonstration: Mass General Hospital This program employed physician champions that advocated the program. In addition, every two weeks, the team spends 2 hours together for a case review.
Structure the size of program to facilitate communication	Guided Care Guided care was more successful in Kaiser Permanente than it was at Johns Hopkins community-based ambulatory practices.
Adapt the program to reflect local and changing circumstances	Medicare Coordinated Care Demonstration Sites were able to adapt and revise during the demonstration process to improve process of care and targeting techniques.
Provide important feedback to clinicians and care coordinators	Baptist ACE The score card, which was developed by physicians, contained over 40 aggregate scores on quality measures which represented 10 domains (each domain had 3 or 4 measures). Physicians received their report cards monthly, with detailed information at both the patient and diagnosis-related group level.
Foster effective interactions with patients	Care Oregon The health plan changed its relationship with the network to make the care point-of-service-based, whereas historically, care management has been outside of the delivery system (eg, through phones).
Focus on care transitions	Arkansas Pediatric Hospital Program targeted medically complex children and made a strong effort for the coordinating team to be an “anchor” and ensure continuity of care.
Develop programs that reduce workload of physicians	Medicare Care Management for High-Cost Beneficiaries (CMHCB) Demonstration: Mass General Hospital While MDs did not necessarily gain financially from participating in the program, they benefited from a reduced workload that allowed them to spend less time caring for a panel of patients.

high-need, high-cost population found that 1 contact per month with the care coordinator is the minimum necessary for a successful program.⁴

Periodic Updates

Most successful programs evolve over time.¹³ The challenge here is periodically updating the program to reflect new information about what is working, and responding adequately to the changing mix of high-need, high-cost

individuals participating in the program. It appears to be important for care managers and clinicians to have enough flexibility to initiate program innovations at certain intervals, but there does not seem to be a standard timeline for updating the program. It is clear that many programs treating high-need, high-cost individuals require a long period of sustained funding before the program becomes cost-saving.

More Time With Patients

There are a multitude of programs with different financial incentives for physicians. Many of them provide rather modest financial incentives for the physicians and may represent a relatively small portion of the physicians' total patients. As a result, changing the financial incentives is frequently an unsuccessful strategy. Instead of dollars, an appeal to the physician's work-life balance is often more effective.⁵ Care coordinators are able to simplify the work of clinicians by facilitating the interaction with other physicians treating the patient, meeting with family members, explaining changes to treatment protocols with patients, interacting with social service agencies to make sure the patient has necessary services, and many other roles that the physicians frequently perform. This allows the physician to spend more time with their patients and to perhaps leave the office earlier in the day.

Summary and Recommendations

Governments, health plans, and clinicians will soon be developing the next generation of programs designed to treat high-need, high-cost individuals. The reasons are clear: they are the most costly individuals who often have the worst clinical outcomes. The problem is, most of the interventions that have been attempted have not yet been able to achieve 1 or more of the triple aims, and many of those that have been reported in the peer-reviewed literature as being successful in this were not operational a few years later. The current evidence suggests that programs that share certain attributes are more likely to be successful and sustainable. These attributes are shown in the Table. These attributes are meant as guidelines for governments, health plans, and clinicians to consider as they develop the next generation of programs. Whereas all are important, perhaps the most important is identifying the patients most likely to benefit from the program and then targeting the program around these individuals.

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