As states consider options for incorporating disease management programs into Medicaid, they can benefit from Medicare’s prior experience in this area. This brief summarizes Mathematica’s study of best practices in care coordination for people with chronic illnesses. The research was launched to study possible reforms and innovations to Medicare’s fee-for-service system, as a result of a congressional mandate in the Balanced Budget Act of 1997. Researchers examined over 300 programs developed by a wide range of organizations—including managed care plans, commercial firms, and academic medical centers—that aim to improve quality of care and reduce costs by coordinating care for chronically ill people. This brief draws on that study to suggest key factors for states to consider as they move forward to develop disease management programs incorporating care coordination in Medicaid.

**A Variety of Approaches**

Disease management has emerged as a promising strategy for improving care for Medicare and Medicaid beneficiaries with chronic conditions. Research has shown that people with chronic conditions are frequently heavy users of health care and account for a disproportionate share of expenditures. At the same time, the health care system has often failed to meet their complex needs adequately.

Although studies have suggested that disease management programs can help improve health outcomes while lowering the medical costs associated with chronic illnesses, states now confront a bewildering array of choices about how to design and launch these new efforts. Our research suggests that there is no single “best” approach; instead, states are being encouraged by the federal government to establish disease management programs for Medicaid beneficiaries with chronic illnesses. While these programs may be able to generate significant savings, selecting vendors can be difficult. States should ask potential vendors the following:

- Which types of clients or disease groups will be targeted and when?
- Does the program include a comprehensive arsenal of proven interventions, or just one or two?
- What will be done to involve primary care physicians?
- Do the plans for client education take into account the educational and cultural characteristics of the Medicaid population?
- What performance monitoring and data analysis capabilities are available?
- What kinds of education and experience do the care coordinators have?
- How long has the program existed? What is its track record?
- In detail, how will cost savings and quality be measured?
states should consider their specific needs and review their existing strengths, matching them with potential vendors before moving forward. Here, we review some common characteristics of successful programs and suggest issues for states to consider in their decision making.

**Care Coordination: Three Steps**

Disease management programs tend to target either people with specific diagnoses, such as diabetes or congestive heart failure, or people who are simply very frail or have multiple chronic health problems. In either case, the programs seek clients who are at high risk for adverse, expensive health outcomes in the near future. Regardless of the target population and methods of recruiting clients, the basic steps for implementing a disease management program are similar.

For each client, staff in the successful programs we studied typically went through a three-step process.

**Step One: Assess and Plan.**

This step involves conducting an initial assessment and developing a clear, practical plan that addresses the problems identified. The tasks involved in this step include:

- Uncover all important problems that can keep a client from better health and lead to unplanned hospitalizations. These problems vary for each individual.
- Address each important problem and goal; develop a related plan and intervention.
- Draw from a comprehensive arsenal of proven interventions. Staff must have a broad array available in order to choose the best ones to meet the client’s needs.
- Write a clear, practical, individualized plan of care, with specific goals. All concerned—client, care coordinator, and primary care physician—should agree on a common set of goals for the client, and when and how they will be achieved.

This initial assessment should cover a broad set of issues ranging from medical topics, such as diagnoses and medications, to functional areas, such as activities of daily living. The assessment should also cover social supports, including caregiver burden and availability of transportation, and emotional issues, such as depression and loneliness. Assessments should be done in person and can include a home evaluation. With a client’s permission, staff can consult with the primary care physician, family members, and sometimes with nurses, physical therapists, neighbors, or an apartment manager who has frequent contact with the client.

The assessment should conclude with a clear, written plan of care listing individual problems, goals, and interventions, which can be varied and include referrals to community services or resource organizations. Initial assessment and care planning should be tied to standard national guidelines of care for a particular disease.

**Step Two: Implement and Deliver.**

This step involves operationalizing the plan and delivering the interventions. It includes the following tasks:

- Build ongoing relationships with the primary care physician and other providers. This enables staff not only to coordinate care but also to facilitate communication. Evidence suggests that programs failing to engage the client’s physician may have limited ability to address the medical aspects of care coordination.
- Build ongoing relationships with the client and family members. The foundation for this relationship is often laid during the initial assessment in Step One.
- Provide excellent client education. Programs must teach crucial self-care skills, such as proper diet for a specific condition, medical compliance, self-monitoring, emergency action plans, and skills to cope with the stresses of chronic illnesses.
- Monitor to make certain that planned interventions get done.

In our study, most programs did not require clients to switch primary care providers in order to receive services. They also were not locked into restrictive provider networks. Programs provided client education, which should be individualized because clients tend to have different combinations of problems. However, programs should also focus on providing high-quality educational materials and should
periodically evaluate the value of the information supplied. One or more of the successful programs in our study provided education in each of the following areas: symptom identification and management; self-monitoring; identification and avoidance of triggers that cause symptoms to worsen; reduction of emotional distress; appropriate activity level; compliance with medications, diet, and medical followup; appropriate use of emergency and primary care; ways of interacting with physicians; advanced directives; and health care power of attorney.

**Step Three: Reassess and Adjust.**

In this part of the process, staff determine whether the interventions are working and, if not, they adjust the plan. The tasks include:

- Perform periodic reassessments. Staff must contact clients on a regular basis to make sure they continue to progress and have not encountered new problems.

- Be accessible. Make sure that clients have an easy way to reach a care coordinator at all times.

- Nurture relationships with primary care physicians and providers.

- Nurture relationships with clients and families.

- Make prompt adjustments to the plan of care as needed. If reassessment reveals a lack of progress, the plan may need to be changed. Sometimes several interventions may have to be tried and discarded before a successful solution is discovered. Changes also need to be made promptly, sometimes even urgently. Clients’ levels of risk for complications should be monitored carefully in case changes in follow-up frequency are needed.

All programs followed up with clients by phone or through home visits to make sure they were progressing and to catch incipient problems early. However, they varied on other dimensions. The frequency and method of monitoring were generally left to the discretion of staff. Some programs discharged clients when staff felt they had stabilized; others kept them in the program but monitored them less frequently or by telephone. Some programs also relied more heavily on monitoring technology, such as software that prompted staff on the schedule of necessary interventions, or employed interactive voice response systems to allow clients to report their vital signs and other information using a telephone.

**Other Features of Successful Models**

Implementing disease management for the Medicaid population raises a host of difficult design issues for states. We found that, in addition to implementing each of the three steps effectively, successful programs shared a number of other features:

- All had been in existence for a number of years. It takes time to develop and refine a strategy and earn the trust and cooperation of physicians.

- Their care coordinators were nurses with at least a bachelor’s degree in nursing; some programs had master’s-level nurse case managers.

- They used a proactive approach, focused on early detection and intervention, and viewed care
coordination as a preventive activity. For example, they arranged for supportive services in the home and taught clients to monitor and take care of their conditions to keep problems from developing in the first place. They also used periodic reassessment and adjustment of the care plan to catch problems as early as possible and deal with them before they become severe.

**Implications for the Future**

The study illustrates the importance of defining a program’s target population early on. It also shows that there are many effective ways of coordinating care. In part, differences in approaches reflect underlying variation in the characteristics of clients served. However, the programs also capitalize on their own strengths or interests, such as having a powerful, broadly accessible database, strong professional bonds between physicians and care coordinators, or a supply of in-home monitoring devices.

The study also shows that incremental approaches to improving chronic illness can work. No organizational or structural change in Medicaid or the health care system is required for programs to be able to implement the three steps or the proactive stance used by successful programs. Similarly, most of the programs in the study do not require physicians to make major changes in their practices. Clients are not required to leave their primary care physician or to lock into a network of providers.

Based in part on Mathematica’s best practices study, the Centers for Medicare & Medicaid Services established the Medicare Coordinated Care demonstration, with 15 independent programs currently in operation. These programs, which began enrolling patients between April and September 2002, have enrolled over 15,000 beneficiaries to date and will continue enrollment through mid-2005. Mathematica is evaluating the programs, using a randomized design to ensure valid impact estimates. A report on the first year of operations is currently under review. Reports on impacts during the first two years will be produced for each program in 2005, and a final summary report to Congress will be prepared in 2007.

Mathematica is also evaluating three disease management demonstration programs responsible for providing prescription drugs to enrollees who have congestive heart failure, diabetes, or coronary artery disease. The first program began serving patients in February 2004. Two others will begin over the next three months.

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