Disease Management: Does It Work?

by Jill Bernstein, Deborah Chollet, and G. Gregory Peterson

Disease management (DM) programs are a common feature of both private and public health plans. In 2008, 59 percent of large employers offering coverage included at least one DM program in their most popular health plans. At least 20 Medicaid agencies and a number of state high-risk pools also have instituted DM. This brief looks at the research evidence on the effectiveness of DM programs and emphasis on DM in health care reform.

Better Outcomes at Lower Cost

DM programs identify patients with costly chronic conditions, such as diabetes or asthma, and encourage them to follow recommended self-care and coordinated care regimens. DM strategies range from educating patients about appropriate self-care (such as self-monitoring, keeping medical appointments, taking prescribed medications, maintaining healthy diets, and exercising) to developing customized plans coordinating care for patients with multiple chronic conditions. Some DM programs also try to improve providers’ adherence to evidence-based care guidelines. DM programs seek to control health care costs by focusing on two major drivers:

• **High-cost chronic conditions.** A relatively small number of people with chronic illnesses account for most health care costs. In 2004, more than 75 percent of all medical spending was attributed to the roughly 50 percent of the noninstitutionalized population with one or more chronic conditions.

Not Yet Consensus that DM Works

In 2007, more than half of U.S. employers offering health insurance said that DM programs in general were effective in reducing health costs. However, the research evidence on DM’s impacts on cost, quality of care, and health outcomes has been inconclusive. For example, programs aiming to implement widely accepted, evidence-based guidelines for the care of patients with congestive heart failure have had mixed results:

• Some DM programs reduced hospitalization rates and post-discharge mortality for congestive heart failure by 5 to 25 percent, but others showed no positive impacts on post-hospital mortality.

• Although some such programs produced enough savings by reducing hospitalizations to cover program costs, others have not.
Some Features Seem Effective

While differences in both the implementation and targeting of DM programs can affect their results, four DM program features appear to improve their relative effectiveness:

• **Individualized case management.** Successful programs follow a common strategy in planning care. They conduct an initial assessment with the patient to develop a clear, practical plan addressing the patient’s chronic illnesses; they implement the plan with a focus on patient education, relationship-building with physicians, and monitoring to ensure each step of the plan is completed; and they periodically assess the status of the intervention and adjust the plan as necessary.

• **In-person contacts.** In more successful DM programs, care managers meet in person with their patients to coordinate care, rather than communicating only by phone. In-person contact may promote more thorough initial evaluations and care plans, as well as more trusting relationships between care managers and patients.

• **Focus on hospital discharges.** Many chronically ill patients who experience an unplanned hospitalization return to the hospital or the emergency room within months of discharge. This pattern may reflect a number of problems: the patients’ acute problems were not resolved by the time of discharge; they lack sufficient self-care skills or social support; or they are seeing multiple providers who do not communicate with one another. Interventions that reduce the likelihood a patient will return...
to the hospital within six months of being discharged include coaching of patients about appropriate self-care and enhanced discharge planning with clinical follow-up by, for example, a clinical pharmacist or advanced-practice nurse.\textsuperscript{25, 26, 27, 28}

- \textbf{Low out-of-pocket expenses for recommended care.} Patients with chronic illnesses characteristically have high out-of-pocket expenses.\textsuperscript{29} Reducing cost sharing for services or medications in a patient’s DM plan can significantly increase adherence to the plan.\textsuperscript{30}

\textbf{Considerations for Policymakers}

The Patient Protection and Affordable Care Act (P.L. 111-148) or ACA, enacted in March 2010, emphasizes chronic disease management to improve the quality of care and address cost. For example:

- It requires health plans to publicly report chronic disease management as an indicator of the quality of care by 2012, and to include chronic disease management as an essential benefit by 2014.
- It directs the Center for Medicare and Medicaid Innovations (at the Centers for Medicare & Medicaid Services) to focus on developing models for improving the efficiency and quality of health care—including care coordination for chronically ill individuals at high risk of hospitalization, provider networks that employ health information technology and care coordinators, a chronic disease registry, and home telehealth technology.\textsuperscript{31}
- It creates a financial incentive for states to develop primary care-centered medical homes for Medicaid enrollees with chronic conditions by increasing the federal contribution rate when they do.
- It establishes a program of community-based, interdisciplinary professional teams to help primary care practices develop more effective systems for managing an array of health care problems in children and adults.

ACA offers states and communities important roles in designing, implementing, and evaluating DM programs in public and private health plans. For example, state and local public health agencies can work with local health plans to design DM programs that focus on the specific needs of their populations, providers, and local systems of care. States also can lead in evaluating the effectiveness of DM programs in qualified private plans available through their health insurance exchanges, as well as the medical home models of chronic disease management that ACA encourages them to develop in their Medicaid programs. Understanding what does or does not work in private and public plans, for different populations and in different circumstances, will be essential to improving both the quality and efficiency of care for chronic disease.

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\textbf{Notes}

1For example, while more than three-fourths of physicians have adopted DM in their practices, implementation tends to vary by practice size, with larger practices more likely to use resource-intensive strategies such as hiring nurse managers. See Carrier, E., and J. Reschovsky, “Expectations Outpace Reality: Physicians’ Use of Care Management Tools for Patients with Chronic Conditions.” Center for Health Systems Change Issue Brief No. 129. Washington, DC: HSC, December 2009.

13 Laramee, A.S., S. Levinsky, J. Sargent, R. Ross, P. Callas. “A Systematic Review of Multidisciplinary Care Coordination and to control groups that do not, and compare expenditures for these two groups. However, these methods can be expensive and time consuming, and commercial DM vendors rarely have used them.
20 Among patients with chronic illnesses, average out-of-pocket expenses, already high, have grown sharply over the last decade. See Pacz, K.A., L. Zhao, W. Hwang. “Rising Out-


31 The Institute of Medicine defines telemedicine as the “use of electronic information and telecommunications technologies to provide and support health care when distance separates the participants.” Home telehealth is an expansion of the basic definition of telemedicine to include the use of telecommunications to provide care services to a patient at home. Kinsella, A. *The Home Telehealth Primer*. July 2008. Available at [http://tie.telemed.org/articles/article.asp?path=homehealth&article=homeTelehealthPrimer_ak_tie08.xml](http://tie.telemed.org/articles/article.asp?path=homehealth&article=homeTelehealthPrimer_ak_tie08.xml).

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