Medicaid Disease Management
States Turn to Private Sector Solutions to Improve Medicaid Programs

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"We want to have a Medicaid program that focuses on maintaining good health, not just treating illness."

— John Stephen, Commissioner, New Hampshire Department of Health and Human Services[1]

As states face rising Medicaid costs and more people who have chronic diseases—such as cardiovascular disease, asthma and diabetes—they are increasingly turning to disease management (DM) programs to help Medicaid beneficiaries manage their conditions. Although disease management is widespread in the private sector, state experience is relatively new but steadily increasing; 26 states adopted new initiatives in 2007.[2] These private sector strategies for helping patients manage complex medical conditions are gaining ground with Medicaid, where as many as 16 million beneficiaries nationally—and more than 60 percent of adult Medicaid enrollees—have a chronic ailment, according to the Kaiser Commission on Medicaid and the Uninsured.

Treating chronic disease accounts for about 80 percent of Medicaid expenditures; therefore, it is not surprising that states are eager to find ways to curb spending for this population. Saving money is not the only incentive for embracing disease management. Other state goals include improving the health of Medicaid beneficiaries, improving access to health care providers and prescription drugs, and integrating best practices into treatment of the chronically ill. The federal Centers for Medicare and Medicaid Services (the federal agency that partners with states to jointly administer Medicaid) encourages states to establish disease management programs with services eligible for federal financial participation.

Disease Management Defined

Disease management is a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant. Disease management:

- Supports the physician or practitioner/patient relationship and plan of care.
- Emphasizes prevention of exacerbations and complications utilizing evidence-based practice guidelines and patient empowerment strategies.
- Evaluates clinical, humanistic, and economic outcomes on an ongoing basis with the goal of improving overall health.

Source: Disease Management Association of America, www.dmaa.org, March 2008.

Policymakers also are concerned about the quality of care that chronically ill patients receive. These patients often do not receive the preventive care and medications they need and as a result, they experience poor health or may need additional treatment for serious complications. In a 2003 study, patients with chronic disease received recommended appropriate care less than 60 percent of the time.[3]

State experience with disease management is relatively new, but the early findings are promising: It appears to improve health outcomes and change personal lifestyles and behaviors. Although the effect on cost savings is promising, albeit mixed, states are moving forward with disease management programs. Policymakers are viewing these strategies as an innovative way to re-direct health funding into prevention and primary care and, in the process, improve quality of care and health among chronically ill individuals. This report summarizes state experiences and highlights lessons learned about the challenges of introducing disease management in Medicaid. The report also summarizes the known effects of disease management programs on health status and state Medicaid spending.

OVERVIEW OF STATE DISEASE MANAGEMENT PROGRAMS

Florida and Virginia were the first to adopt disease management for Medicaid enrollees in the 1990s. Now, a majority of states have adopted some type of program.

"States continue to develop and expand their disease management initiatives, focusing on high-cost cases, recognizing data that show that a small fraction of enrollees (4 percent) account for about half of all Medicaid spending," according to the Kaiser Commission on Medicaid and the Uninsured.[4]

States customize their programs to meet their needs and opportunities, varying the scope, administration and targeted diseases. One state may target the growing obesity epidemic, while another dedicates resources to reduce unnecessary hospitalization and emergency room visits for asthmatic patients.

This section provides an overview of how state programs are designed, implemented and measured, and the challenges many states have faced along the way.

How Disease Management Programs Vary

- **Population served.** Fee-for-service, case management, disabled, TANF, etc.
- **Diseases covered.** Some states start small; others manage several diseases. Most common diseases targeted are congestive health failure, asthma, diabetes, and hypertension.
- **Buy or build?** Some states contract with DM organizations, while others design an in-house program.
- **Legislator role.** Nearly two dozen states have legislation authorizing DM programs. Others pursue programs without legislation.
- **Program goals.** Some focus specifically on managing pharmaceutical services. Others manage patient care and a patient's self-management capabilities. The ultimate goal is to improve correct utilization of the system and reduce costs.
- **Program services**. The range of services varies. Typically, states will offer less intense service (e.g., educational materials, telephone counseling) for patients with less severe conditions and more services (e.g., home visits) for sicker patients.
- **Program savings**. All programs aim to save money. Those states with outside vendors usually require guaranteed savings through the state's contract with the vendor.

Source: NCSL, Excerpted from *State Legislatures*, June 2004.

Legislative Beginnings: Commonplace, but not Necessary

Most states establish their disease management program through legislation. According to NCSL research, laws in 26 specifically address disease management, while at least nine other states have some type of disease management program that was not established through legislation. (For more information about state DM legislation, see www.ncsl.org/programs/health/diseasemgtleg04.htm.) State legislation addresses many areas—from establishing a comprehensive management program to directing the Medicaid agency to expand an existing disease management program to cover new diseases or new geographic areas. Legislatures commonly direct state agencies to do the following in disease management legislation:

- Convene a commission or task force to study disease management.
- Establish a disease management program or authorize a pilot program, typically for a certain population or disease.
- Define disease management or disease management organizations.

- Direct the Medicaid agency to apply for federal waivers to implement disease management.
- Authorize creation of a disease management registry to record cases of certain diseases.
- Amend disease management programs to add or remove certain conditions or counties from the program.
- Require health plans—e.g., state-purchased plans and the State Children's Health Insurance Program—to include disease management programs.
- Allow the Medicaid agency to enter into agreement with pharmaceutical manufacturers to accept certain program benefits (e.g., disease management program) in lieu of supplemental rebates.

Program Design

Typical programs target patients with the most costly chronic conditions, such as asthma, cardiovascular disease, cancer and diabetes. States often match individuals with the most appropriate services for their condition. Patients who are seriously ill, for example, may receive one-on-one care from a registered nurse, who may make home visits, help them adhere to their care plan, and even accompany them to medical visits. Healthier individuals may receive disease management services through phone calls and written information about their condition. Many programs support physicians and nurses on best practices and help them deliver disease management services to their patients. Some examples of state programs follow.

Essential Program Characteristics

The Disease Management Association of America recommends that programs have the following characteristics:

- Ways to identify patients for participation;
- Evidence-based guidelines for care and medication;
- Treatment that includes physicians and support service providers;
- Patient education (may include prevention and behavior modification programs); and
- Evaluation of results, such as patient satisfaction, expenditures and use of health care services.

- The *Balance it Out: Arkansas* initiative seeks to reduce childhood obesity by providing at-risk children and families with school-based screenings, nutritional counseling and other services. This partnership (between the Arkansas Department of Health and Human Services, Pfizer Health Solutions Inc., school districts, local health care companies and advocacy groups) seeks to improve the health of Medicaid beneficiaries and reduce health care costs of recipients who are receiving one-on-one coaching.
- The Mississippi Division of Medicaid's disease management program includes telephone and community-based nurse intervention for 60,000 Medicaid beneficiaries who have asthma, diabetes or high-risk hypertension; it includes a 24-hour nurse triage line. The program's goals include improving the quality of life and health for beneficiaries and saving money by managing illnesses.
- Washington's Medical Assistance Administration runs a Medicaid disease management program for beneficiaries who have asthma, diabetes, heart failure and renal disease. The program offers customized nurse counseling services, health education, and information about behavioral changes to 27,000 of the state's fee-for-service Medicaid clients.
- Medicaid beneficiaries in rural Pennsylvania lack access to health care providers and services. To reach these people, the Department of Public Welfare implemented ACCESS Plus in 42 rural counties in 2005. The program serves individuals with asthma, diabetes, coronary artery disease, chronic obstructive pulmonary disease and heart failure.

Types of Programs

States typically adopt a disease management program by purchasing the services through an outside vendor or they build a program in-house. These options are described in greater detail below. In addition to the buy-it or build-it options,

states also may choose to partner with pharmaceutical companies to develop savings strategies, that typically include disease management.

Buy It. Under this arrangement, states contract with a vendor to manage chronically ill beneficiaries. Vendors typically guarantee savings (up to 5 percent) on total Medicaid costs, and the vendor is contractually bound to make up savings. A key advantage for states is that the vendor absorbs start-up costs; therefore, states need not make a large initial investment. States also may outsource because they hope to achieve rapid savings from their programs, they may not want to develop additional government programs, and they may be pressured to demonstrate cost savings.[5] Outsourcing requires states to be closely involved in all phases of the management program—selecting and managing vendors, ensuring they have expertise with the Medicaid population, and ensuring valid and credible measures for measuring program outcomes and cost savings.

Build It. Some states build and administer their programs. This allows the state to "…closely shape the disease management program and develop a more permanent chronic care management infrastructure." However, states that build programs also must assume financial risk for the program, and they must have the talent and organizational capacity to manage the program, which often means hiring additional personnel.

Expected Outcomes

Programs typically seek to achieve similar results their management programs. Table 1 summarizes the outcomes Arkansas seeks to achieve, and they reflect many states' goals. Some states measure all of the outcomes and others only a few, depending on the scope of the program.

Table 1. Common Disease Management Program Outcomes that States Are Measuring

Outcome	Examples of How OutcomeIs Measured
Behavioral	Percentage of participants adhering to treatment plan
Clinical	Percentage of patients with improved blood pressure monitoring or lower cholesterol
Financial	Favorable return on investment and lower monthly member costs
Program Utilization	Percent of enrollees who stay with the program until goals are met
Medical Utilization	Lowered hospital admissions and length-of-stay, decreased emergency department visits for chronic illness, and improved follow-up with medical provider

Source: *Balance It Out: Arkansas* Program Overview, Prepared by Pfizer Health Solutions Inc., December 2006.

Challenges for States

Creating and implementing a Medicaid disease management program raises many important questions for states and policymakers.

- Will the state contract with a company to run the program?
- Will it build up its infrastructure and human resources to manage the program in-house?
- Which diseases will the programs cover?

- Will the state start with a pilot program and expand or will it launch a comprehensive disease management program?
- What services will the program provide?

Day-to-day operation of a disease management program for Medicaid enrollees presents unique challenges. Getting information to program recipients can be difficult, especially for Medicaid enrollees who are more likely to experience gaps in eligibility that lead to high program turnover. Moreover, conveying information by telephone and mail can be difficult with clients who have no telephone or lack a consistent telephone number.

Finally, a state must measure the success of the disease management program. It can be difficult to evaluate clinical and cost outcomes but progress has been made since the first disease management program was implemented. Determining how program outcomes will be measured is critical. Without it, stakeholders are likely to disagree about the program's effectiveness on health status and cost. In addition, some states have found it to be a challenge to manage expectations about the effect on cost. To gain acceptance for the program, the expected cost savings can be over-emphasized or not clearly defined leading to disappointment when the savings fall short of expectations. Another challenge is locating the Medicaid clients who participated in the program but may no longer be eligible for services at the time of the evaluation. The Disease Management Association of America and the National Committee for Quality Assurance developed key criteria for measuring outcomes that may be useful to states.

In short, states find that the entire cycle of disease management—from design to implementation to evaluation—presents challenges and obstacles. Fortunately, state experiences with disease management offer numerous case studies about how states overcome challenges.

Model State Programs

This section highlights experiences in three states—Florida, Indiana, and Vermont—and summarizes program characteristics, enabling legislation, results and lessons learned. The states represent various approaches to disease management. Florida is a pioneer in the field and Vermont is a newcomer.

Florida

The Florida experience provides important information about implementing disease management on a large scale through contracts with companies to manage a specific disease or segment of the population. Because it has been in operation since 1997, policymakers can benefit from what the state's experiences with health and quality, and from lessons learned.

Florida Program Designed to Promote and Measure:

- Health outcomes,
- Improved care,
- Reduced inpatient hospitalization,
- Reduced emergency room visits,
- Reduced costs,
- Better educated providers and patients, and
- Enhanced connection between provider and patient.

Source: Agency for Health Care Services web page, http://ahca.myflorida.com/Medicaid/Disease _Management/index.shtml; March 2008.

Legislative Beginnings

In 1997, the Legislature directed the Agency for Health Care Administration (AHCA) to establish disease management programs and to "…select methods for implementing the program that included best practices, prevention strategies, clinical-practice involvement, clinical interventions and protocols, outcomes research, information technology and other tools." At first, the Legislature identified certain diseases to be covered, including diabetes, hemophilia, asthma and HIV/AIDS. A year later, the Legislature added

several other diseases to the list, including end stage renal disease, congestive heart failure, cancer, sickle cell anemia and hypertension. The state contracted with multiple vendors to manage specific diseases. The program, Healthier Florida, currently is awarded through a competitive bidding process initiated by Florida's Agency for Health Care Administration.

Program Services and Populations Covered

Using claims information, the agency identifies potential Medicaid beneficiaries who have a chronic disease and are enrolled in MediPass, the primary care case management program. Participation in disease management programs is voluntary, and eligible recipients have access to a care manager who oversees their health care and also receive assistance from multi-lingual community health workers, social workers, pharmacists and dieticians. Because of the challenges states have faced in connecting disease management services with the Medicaid population, the Florida approach relies heavily on partnerships between the care managers and multi-lingual community health workers, social workers and patient advocacy groups to reach eligible enrollees.

Challenges and Lessons Learned

Although the outsourcing approach helped to implement the comprehensive, statewide disease management program, the complexities of contracting with numerous companies also presented problems. In 2001 and 2004, the Office of Program Policy Analysis and Government Accountability (OPPAGA) found that the initiative met neither cost savings nor health outcomes expectations. Relying on multiple vendors for specific diseases did not create a holistic approach for individuals who had two or more diseases. Moreover, measuring cost savings was criticized because of "weak approaches to estimate baseline costs."[6] The challenges were daunting for this rapidly expanding program, according to a 2006 report by the agency and Pfizer Health Solutions. "Beneficiaries are hard to reach, participation is voluntary and intermittent, and quantifying disease management programs is difficult overall."[7] Due to these challenges, the Florida program has continually retooled and refined its approach to more effectively reach members.

Program Outcomes

Despite the challenges, the disease management program has improved health outcomes and lowered health care costs. The one-on-one coaching and other services improved clinical measures. A recent two-year prospective study of the patients enrolled in the program revealed that control of hypertension improved, cholesterol levels declined, and patients were more compliant with taking medications.[8] Office visits for all patients increased, and emergency room visits and hospitalizations dropped.[9]

Indiana

The Indiana Chronic Disease Management Program (ICDMP) represents a hybrid approach. Neither completely in-house nor completely outsourced, the program is best described as a model that assembles existing public health infrastructure into a state disease management program.

Legislative Beginnings

The 2001 General Assembly directed the Office of Medicaid Policy and Planning to implement a disease management program for individuals with asthma, diabetes, congestive heart failure and hypertension and individuals who were at high risk for developing a chronic illness. The legislation also directed the agency to first implement a pilot program and then expand statewide after evaluating the pilot program and making necessary adjustments. The law also directed the agency to evaluate the program on cost and health outcomes.

Indiana Program Goals

"Build a comprehensive, locally based infrastructure that is sustainable and will strengthen the existing public health infrastructure and help improve the quality of health care in all populations, not just Medicaid populations. We hope that the ICDMP infrastructure will be an asset not only for the patient but also for health care providers."

Source: ICDMP Web Page, **October 2007,** www.indianacdmprogram.com.

Program Services and Populations Covered

Using claims data, the program divides members into two groups, based on the severity of their conditions. The healthiest patients receive telephone care management through a centralized call center. The program assigns a nurse care manager to the sickest individuals. The nurse provides one-on-one assessments and education for a four- to six-month period, and these individuals eventually are moved to the call center for ongoing assessment. The state also has developed an electronic disease registry, available to providers, that contains clinical information about participants, and their individualized care plans.

Program Outcomes

The state consulted with the Regenstrief Institute, a nonprofit health care research organization affiliated with the Indiana University School of Medicine, to conduct a controlled study to measure patient behavior, hospitalization rates, drug use and member satisfaction. The most significant savings occurred for participants with congestive heart failure; their individual costs were reduced by more than $720 per month.

Maintaining strong relationships with physicians and participating providers is a high priority. Therefore, the program supports physicians with tookits—containing clinical guidelines and educational materials—and free access to an electronic disease registry.

Although the Indiana program may not work for every state, the approach has several advantages, according to state officials. It strengthens the public health infrastructure; nurse care managers living in the communities where they work (so they are not seen as outsiders); it keeps jobs and expertise in the state; and its strategy of involving partners both within and outside of the Medicaid program offers the potential for expansion beyond the Medicaid program.

Vermont

Half of all Vermont adults have one or more chronic conditions, and treating them absorbs 70 percent of the $3.3 billion spent on health care annually.[10] Due to the escalating costs, Vermont is launching a comprehensive chronic care management initiative through a contract with an outside vendor.

Legislative Beginnings

To control these costs, the legislature passed the Health Care Affordability Act in 2006. This act seeks to control costs by managing chronic care and making health care more affordable and accessible through a comprehensive health insurance plan, Catamount Health. The General Assembly endorsed the "Blueprint for Health," a statewide chronic care initiative, to give all Vermonters with chronic conditions the necessary information and support to manage their health. Prevention and improved care for the chronically ill are expected to result in a healthier population; appropriate, timely and effective medical treatment; and reduced demand for medical treatment services.[11]

Program Services and Populations Covered

The chronic care management program, administered in the Medicaid program, is available to all residents, including those currently insured. Through the program, a nurse is available to provide information about individual health issues and support health care plans. Recipients will receive early screening for chronic conditions, and the program will work to ensure that the chronically ill receive "the right care at the right time." By focusing on prevention and office visits, the program is expected to save money. The approach also includes a chronic disease registry to give providers critical information about patients and their conditions and to help providers deliver evidence-based care.

Program Outcomes

Although the program is new, the chronic care initiative reports several achievements.

- The program expanded from two communities to six—each with funding for local project managers, self-management regional coordinators, community physical activity initiatives and provider education.
- Nearly 75 percent of all primary care providers in the six communities participate in the Blueprint.
- More than 300 people completed the Healthier Living Self-Management Program in 2006, which teaches self-management of chronic diseases.

The state projects savings of $550 million during the next 10 years due to these system changes. By focusing on prevention and self-management and delivering timely, appropriate care, the state expects that chronically ill individuals will receive more preventive care and, as a result, the state will spend less for acute and emergency care. It is too early to tell if the emphasis on chronic care management will yield these savings, and some question whether chronic management can cut costs so drastically. The state, however, is betting that the reforms will save money.

WHAT DIFFERENCE DO DISEASE MANAGEMENT PROGRAMS MAKE?

States with disease management programs expect that the interventions will yield favorable results—healthier people, an improved delivery system and, almost always, lower costs. Rarely do health care policies offer all three. Cost containment measures, for example, typically rely on cutting benefits, provider payments or restricting eligibility. Yet, disease management programs are touted as having the ability to produce savings and improve individual health and the overall health care system. If this seems too good to be true, some argue that it might be, especially if states expect immediate savings. This section summarizes the effects of disease management programs on health outcomes and costs.

Disease Management Program Effect on Individual Health

State experience with disease management programs builds a strong case that such programs improve the quality of life for people with chronic conditions. Many experts agree that the programs improve quality, help patients feel better and empower them to navigate the health care system."[12] As a result of targeted disease management efforts, states report fewer emergency room visits, fewer and shorter hospitalizations, improved health care behaviors, and overall improved health among individuals enrolled in the programs. Some examples follow.

- In first-year Washington disease management efforts, more asthmatic patients received flu shots, more than twice as many heart failure patients weighed themselves daily, and more diabetic patients took aspirin. Patients with asthma more actively managed their conditions with an action plan, and the severity of their symptoms decreased. [13]
- In Colorado, a disease management pilot program for Medicaid enrollees with asthma resulted in an 86 percent drop in emergency room visits, a 55 percent reduction in hospitalizations, and a 94 percent satisfaction rate, according to the National Jewish Medical Center in Denver.[14]
- Oregon's Medicaid disease management program reported improvements for participants with asthma, heart failure and diabetes. After six months in the program, more individuals with asthma had an action plan and limited smoke exposure. Among participants with heart failure, 74 percent weighed themselves daily after six months in the program, compared to only 30 percent at the start of the program.[15]

Disease Management Program Effect on Cost

The average monthly medical expenditures for chronically ill Medicaid beneficiaries were nearly $560, versus $36 for individuals who had no chronic illness.[16] Many states anticipate that improving health care for beneficiaries, combined with improving how those individuals use the health care system—fewer trips to the emergency room and fewer hospitalizations, for example—will save money among the chronically ill population. "If we assist someone in managing a chronic condition rather than letting it get out of hand," said Dr. Tom Turek, medical director for the Oregon Medical Assistance Program, "we can help improve their health and help the state save funds by working to eliminate medical visits that become necessary when an illness is out of control."[17]

In other words, re-directing patients to a physician's office for preventive visits and follow-up with disease management staff is likely to reduce costly trips to the hospital and costly complications. In many cases, states are finding this to be true.

- The Oregon Department of Human Services reported that a contract with a disease management company helped the state avoid $6 million in medical costs during its first year. These costs were averted because of fewer emergency room visits and fewer hospitalizations.

- Indiana's Office of Medicaid Policy and Planning contracted with the Regenstrief Institute to conduct a random, controlled trial of its Medicaid disease management programs. Researchers determined that the disease management program for congestive heart failure yielded the most significant results: Costs for individuals in the control group were reduced by more than $720 per member per month.[18] A study targeting patients with the same disease in Texas, however, found that congestive heart failure disease management improved mortality of patients but did not save money.[19]

- As a result of disease management services for individuals with asthma, diabetes and hypertension, the return on investment for the Mississippi Division of Medicaid was about $2.35 for every $1 invested. Program savings resulted from reducing hospital admissions, emergency room visits, and other avoidable health care costs. Overall health improved for certain enrollees, as measured by the percentage of diabetics who took aspirin or received an annual flu vaccine.

Although these savings are impressive, some experts warn states to be realistic about their return on investment. Investing in disease management programs may actually increase short term costs. Individuals who previously did not consistently use the system (including filling and taking prescribed medications) may now receive comprehensive care.

The case for cost savings is promising, but it is, nonetheless, not decisive. Savings realized in some states have fallen short of early predictions. The lesson for states is to approach cost savings with realism, and to expect that implementing disease management is, indeed, an investment. Although a disease management program may yield impressive returns, it will almost always require the state to invest resources to achieve results.

CONCLUSION

Some states are designing many ways to implement disease management techniques, and their experiences provide useful information and case studies for others that are interested in adopting or expanding their disease management programs. The path to implementation is not always smooth, but the growing body of state experience is producing ideas for how states can avoid bumps in the road.

The basic effects of these changes are promising, but mixed. However, integrating disease management techniques into state Medicaid programs offers states the opportunity to reform the health care delivery system for certain populations and improve beneficiary health. This shift from paying for sickness and emergency care—and, instead, paying for prevention, health promotion and self-empowerment—offers benefits beyond an improved health care system. Individuals are healthier and more in control of their conditions. Many states find that these patients are less likely to require unscheduled doctor and emergency room visits and hospitalizations.

Notes

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