

## Medicaid Disease Management: Seeking to Reduce Spending by Promoting Health

By Ben Wheatley

*Over the past two years, states across the country have been struggling to cope with rising Medicaid expenditures and, in some cases, significant budget shortfalls. They have sought to cut Medicaid spending by limiting benefits, increasing cost-sharing, and slowing provider payment increases. A number of states have also tightened Medicaid eligibility standards or have delayed planned eligibility expansions until their budget situation improves.*

These reductions in the Medicaid program come at the same time that many states are devising strategies to expand insurance coverage to all state residents.<sup>1</sup> In order to expand coverage further, or even maintain current eligibility levels, states are seeking assurances that they will be able to control their program expenditures.

Within the last several years, disease management (DM) has emerged as a

potentially effective tool for states to control Medicaid costs while improving health care quality. A number of states have implemented DM pilot programs that emphasize prevention and regular monitoring of patients with chronic conditions. Although many operational challenges remain, the results of early studies have been encouraging. If these programs are able to live up to their billing, they may assist states in utilizing scarce Medicaid dollars more effectively and could enable states to maintain — or even expand — coverage for low-income populations.

This issue brief describes the components of Medicaid disease management programs and state experience to date.

### What is Disease Management?

Disease management is an integrated approach to health care delivery that seeks to improve health outcomes and reduce health care costs by: (1) identifying and proactively monitoring high-risk populations; (2) helping patients and providers adhere to treatment plans that are based on proven interventions; (3) promoting provider coordination; (4) increasing patient education; and (5) preventing avoidable medical complications.<sup>2</sup> DM focuses on the chronically ill, who account for a disproportionately large percentage of all medical expenditures.<sup>3</sup>

DM programs may be designed and operated by health plans or by state Medicaid agencies, or they may be contracted out to disease management organizations (DMOs).<sup>4</sup> The programs seek to ensure that patients receive all appropriate care services, avoiding both underutilization and overutilization. For example, DM programs targeted to asthma patients aim to reduce asthma-related emergency room visits and hospitalizations by closely monitoring these patients and ensuring that they are taking appropriate preventive measures, such as taking their medications regularly and avoiding allergens.

### Creating a Medicaid Disease Management Program

#### TARGETING THE MEDICAID POPULATION

Many of the health maintenance organizations (HMOs) serving the Medicaid population on a full-risk basis provide DM or case management services.<sup>5</sup> Typically, however, it is the relatively healthy TANF population, rather than the elderly and disabled Medicaid eligibles, who receive coverage through HMOs. Enrollees with chronic illnesses are more often enrolled in fee-for-service Medicaid or Primary Care Case Management (PCCM) programs.<sup>6</sup>

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The goals of disease management correspond well with the intent of PCCM, which is to improve care coordination and emphasize preventive services. Medicaid DM programs have often been directed to the PCCM population (see Table 1). However, applying DM strategies to this population can also reveal some of the structural flaws within existing PCCM programs. For example, states have found that primary care providers often do not coordinate with the specialists providing care to their chronically ill patients.<sup>7</sup> DM programs, by implementing more proactive care management and coordination, seek to improve upon this performance.

OBTAINING FEDERAL APPROVAL

States have established DM programs for their PCCM populations by submitting state plan amendments to their Section 1915(b) waivers. West Virginia now provides Medicaid reimbursement to Certified Diabetes Educators (CDEs), who serve as case managers and help improve patient self-management skills, such as monitoring blood sugar levels and improving diet and exercise. In addition, the waiver allows West Virginia to pay primary care physicians separately for the time they spend completing patient diabetes assessments, individualized care plans, and flow sheet updates.

Under the Mississippi DM program, which targets patients with asthma,

diabetes, and other conditions, pharmacists evaluate patients, review drug therapies, and educate patients about the importance of staying on their drug regimens and managing their diseases. Mississippi provides Medicaid payments to pharmacists for up to 12 one-on-one patient consultations per year.

SELECTING AMONG THE CHRONIC DISEASES

The diseases that states select for DM programs typically meet the following criteria: (1) there are a large number of enrollees with the disease, and/or the costs of treating the disease are high; (2) acute events, such as emergency room visits, are frequently associated with the disease and are preventable; (3) there is consensus in

TABLE 1:  
**Examples of Medicaid Disease Management Programs**

<i>State</i>	<i>Medicaid Population</i>	<i>Disease(s)</i>	<i>Operational Dates</i>	<i>Statewide?</i>
Florida	MediPass (PCCM)	Diabetes, Asthma HIV/AIDS, Hemophilia, Congestive Heart Failure, End-Stage Renal Disease, Cancer, Hypertension, Sickle Cell Anemia	May 1999 – present	Yes
Mississippi	All Medicaid enrollees	Diabetes, Asthma, Hyperlipidemia, Coagulation Disorders	October 1998 – present	Yes
Texas	N/A	Diabetes	July 1, 1999	No (one county)
Utah	All Medicaid enrollees	Hemophilia	June 1998 – present	Yes
Virginia (1)	Medallion (PCCM)	Asthma	October 1995 – September 1996	No (eight counties)
Virginia (2)	Medallion	Diabetes, Asthma, Hypertension/Congestive Heart Failure, Depression, Gastroesophageal Reflux Disease/Peptic Ulcer Disease	October 1997 – September 2001	Yes
West Virginia	PAAS (PCCM)	Diabetes	July 2001 – present	Yes

the medical community about appropriate treatment guidelines for the disease; (4) there is wide disparity in practice patterns such that patients often do not receive care indicated by the guidelines; (5) outcomes can be measured in standardized and objective ways (e.g., reductions in ER visits and hospitalizations); and (6) significant cost savings can be achieved.<sup>8</sup>

States frequently target DM programs to patients with asthma, diabetes, HIV/AIDS, congestive heart failure, hemophilia, or depression. One lesson that states with established DM programs have learned, however, is that many enrollees have several chronic conditions; therefore, targeting single chronic diseases can be problematic. Florida, which has the most extensive range of DM programs in the country, found that “because this type of initiative requires considerable time to manage and monitor operations, other state Medicaid programs may prefer to select [vendors] that have experience in managing multiple diseases instead of carving out and contracting for each disease condition.”<sup>9</sup> The state has reported that DMOs, which are still relatively new enterprises, have gained more experience and are now able to manage patients with two or more comorbidities.

#### CONTRACTING FOR DISEASE MANAGEMENT

Rather than go through the typical Request for Proposal (RFP) process, Florida’s Agency for Health Care Administration (AHCA) designed a more flexible Invitation to Negotiate (ITN) process with prospective bidders. This allowed the state to test several DM models simultaneously and to obtain greater feedback from DMOs on how to structure the program.<sup>10</sup> For example, during the ITN process, the DMOs expressed concern that if the DM programs remained voluntary for Medicaid enrollees, the programs would not have sufficient economies of scale. To address this issue, Florida instituted automatic enrollment with a 30-day opt-out period for the enrollee.<sup>11</sup>

Another difficult contract issue is that DMOs have been placed at financial risk

to achieve Medicaid cost savings, but do not have leverage in controlling provider behavior (e.g., authority to conduct utilization review).<sup>12</sup> Generating and maintaining physician support is essential to the success of DM programs because physicians must work in collaboration with the DM care team and, at times, modify their treatment patterns. DMOs have sought to address this issue through provider education strategies (see below).

Other states have elected to operate DM programs in-house, rather than contract with DMOs. For example, West Virginia is operating its program internally, paying primary care physicians and CDEs on a fee-for-service basis to perform DMO functions.

#### ESTIMATING BUDGET SAVINGS

DM programs require states to spend money in order to save money, and the savings may not be realized immediately. Moreover, state Medicaid officials have found that accurately estimating budget savings from DM can be very difficult. The state may not have a clear sense of how many Medicaid enrollees have a particular disease because the claims data used to make that determination are often inaccurate. The Medicaid population also frequently shifts on and off the program as their eligibility status changes, resulting in significant swings in enrollment from one year to the next. Simply calculating the total amount spent on patients with a particular diagnosis in the previous year may not provide an adequate spending baseline.

Spending estimates can also vary significantly based on the period of time covered in the baseline. Patients diagnosed with HIV may have high medical costs in year one, but very low costs for the next several years. If the baseline is calculated based on first-year spending averages, the savings reported in the following years may be inflated.

In its case management program for hemophilia, Utah has found that changes in physician practice patterns, patient severity mix, and the prices of health care supplies and services can all significantly

affect spending and comparisons against the baseline.<sup>13</sup> For example, according to an evaluation of the program’s first-year performance, expenditures often increased because of increases in the price of the blood factor needed to treat the disease, even though the program succeeded in reducing utilization of blood factor in many cases. The state found that, because each hemophilia client is an outlier in terms of expenditures, any analysis of the program must be done on a client-by-client basis.

#### ENROLLING ELIGIBLES

Given that claims data are often inaccurate, states and DMOs have discovered that locating and enrolling DM eligibles can be challenging. Florida found that incorrectly coded claims data produced many “false positives” — persons who were thought to have a particular disease based on their claims, but actually did not have the disease — as well as many “false negatives.” Though not perfect by any means, claims data were helpful in at least providing the DMOs with a starting point from which to begin managing cases.<sup>14</sup>

The state and its DMOs have also encouraged MediPass (Florida’s PCCM program) providers to refer patients to the DMOs when appropriate. Thus far, many more patients have been assigned to DMOs from the claims data than have been referred by physicians, though the state hopes that referrals will increase once providers become more familiar with the program.<sup>15</sup>

Finding clients is also challenging for the DMOs because Florida’s Medicaid data system does not contain fields for enrollee phone numbers and so AHCA is unable to provide this information to the DMOs. To try to obtain contact information, AHCA has worked with the Florida Department of Children and Families and the Social Security Administration to retrieve phone numbers for the TANF population and SSI recipients, respectively.

MANAGING CARE

Proponents of disease management argue that these programs have the potential to improve current health care delivery systems because, unlike HMOs, their focus is on managing care rather than managing costs. In addition to improving care coordination, DM programs seek to reduce variation in clinical practice and ensure that physicians adhere to state-of-the-art clinical care guidelines.

States that have operated DM programs in-house, including Virginia and West Virginia, have offered six-hour training courses to physicians on the latest care techniques for asthma and diabetes, respectively. The sessions were free and physicians were offered continuing education credits to attend. While the number of physicians that participated was limited, both states received positive feedback from attendees, and West Virginia reported “overwhelmingly favorable results.”<sup>16</sup>

States that have contracted with DMOs have relied upon these organizations to work with physicians to improve care delivery. Florida DMOs have offered educational courses for MediPass physicians. The DMO serving the HIV/AIDS population hired a full-time medical director to meet with physicians one-on-one to provide training on state-of-the-art treatment methods.<sup>17</sup> In addition, Florida DMOs provide care management services, including patient education and monitoring. They work in conjunction with primary care physicians and clinics to develop appropriate care plans and support providers by improving compliance with prescribed treatment regimens.

The Florida DMOs each use different methods of care management, ranging “from high-tech to high-touch.”<sup>18</sup> Often a registered nurse care manager will meet with patients directly in their home, doctor’s office, clinic, or the hospital. Case managers also contact enrollees periodically by phone to receive updates on the patient’s status, remind them about an upcoming physician appointment, or provide other support. Some DMOs also

provide enrollees with disease-specific information through the Internet.

Managing the Medicaid population is challenging because Medicaid enrollees change residences frequently and often do not have telephones, let alone personal computers. LifeMasters, the DMO serving the congestive health failure (CHF) population in Florida, coded about 20 percent of its enrollees as “unable to reach” by phone. For that group, the DMO has provided recipients with a prepaid phone card, or, in selected cases, a special mobile phone that can access only a LifeMasters nurse, a family member, or 911. Specialty Disease Management Services, Inc., serving Florida’s HIV/AIDS population, has found that about half of its enrolled population cannot be reached by phone and is sending nurses out to contact those patients.<sup>19</sup>

DMO efforts to manage care are also limited by the fact that they do not have direct access to claims data or patient medical records. While AHCA does produce regular utilization reports for the DMO vendors, the primary data are not at their disposal. The DMOs can obtain medical records directly from physicians and clinics, however, the administrative costs of retrieving non-electronic medical records are significant, and privacy concerns have often caused providers to be unresponsive to the DMOs.<sup>20</sup>

ESTABLISHING PHYSICIAN SUPPORT

Establishing physician involvement and support for DM programs is not easy, but is essential to their success. In addition to providing training seminars, states have sought to encourage physician support by seeking their input on DM program design and in establishing care protocols.<sup>21</sup> Nevertheless, DMOs continue to be challenged by the wide variation in physician treatment patterns and lack of adherence to recommended guidelines.

State DM programs have not given physicians financial incentives to change their treatment approaches, but are operating under the assumption that these patterns will change if providers receive updated information on

recommended treatments and feedback on their patients’ outcomes. Evidence from Virginia’s pilot program for asthma – the Virginia Health Outcomes Partnership, or VHOP – suggests that giving physicians periodic feedback may indeed help change their behavior.

Physicians participating in the VHOP program were given frequent feedback about how their asthma patients were faring with respect to ER visits, hospitalizations, and cost experience. VHOP was successful in improving health outcomes, and feedback reports were found to be an especially helpful tool. An evaluation of VHOP conducted by Rossiter et al found that ER visits per 1,000 patients declined by 41 percent over a six-month period among asthma patients who were treated by physicians receiving feedback reports. By comparison, ER visits among patients who were treated by VHOP physicians not receiving feedback reports decreased by an average of 23 percent over that same period.<sup>22</sup> These findings, which were published in the Summer 2000 issue of *Inquiry*, support the idea that physician training and feedback reports can alter physician behavior and benefit the Medicaid program.<sup>23</sup>

A number of state DM programs (including Mississippi, Utah, and Virginia’s current statewide program) direct training and information to pharmacists rather than physicians, and focus on adherence to pharmacological treatment guidelines. The aim of these programs is to improve patient care and reduce costs by eliminating contraindicated treatment regimens and preventing harmful drug interactions for patients with chronic diseases, who are often seeing numerous physician specialists and taking multiple medications.

PROMOTING PREVENTION THROUGH PATIENT EDUCATION

One of the most promising aspects of DM is that it encourages patients to take control of their condition and make any lifestyle adjustments necessary to improve their health. Through Medicaid DM programs, diabetic patients in West

Virginia have been encouraged to exercise more and eat better, children with hemophilia in Utah have been reminded to wear pads to prevent injuries when exercising, and CHF patients in Florida have been instructed how to maintain a healthier diet.

DM programs recognize that major lifestyle changes are often difficult to make, and the patient may need more encouragement than they receive during intermittent physician office visits. Education and follow-up support help patients realize that they can take a more active role in improving their health, and this alone has the potential to produce better health outcomes and reduce expenditures on costly ER visits and hospitalizations.

#### EVALUATING DM PROGRAMS

Evaluating the success of DM programs is challenging due to the difficulties in creating an adequate spending baseline, as discussed earlier. Nevertheless, these programs can track particular outcomes measures, such as ER visits, hospitalizations, and other utilization measures, as well as costs to the Medicaid program. By these measures, DM programs have had some early successes.

As noted earlier, a study of Virginia's VHOP program found that asthma patients experienced significant reductions in emergency visit claims. Preliminary results from other programs also indicate some positive outcomes. In Utah, utilization of blood factor by hemophilia patients covered under Medicaid decreased by 134,000 units from 1998 to 1999 following the implementation of its case program. Expenditures increased by approximately \$140,000 during that period, however, due to blood factor price increases and other issues. Nevertheless, on a case-by-case basis, the state views the program as a success. Program administrators also note that they have now developed an effective team approach to delivering care to hemophiliac patients that involves the primary care physician,


specialist, case manager, and the state hemophilia foundation.

In Florida, a legislative audit completed in May 2001 found that the state's disease management program had not saved the state money and in fact had contributed to Medicaid's \$1.5 million budget deficit because of the administrative costs associated with the program. Shortly after the release of that report, however, AHCA reached an agreement with the pharmaceutical giant Pfizer which guarantees that the DM programs will produce \$33 million in Medicaid savings over the next two years.<sup>24</sup> Under the agreement, Pfizer agreed to contribute funding to support the DM program (including hiring nurses) in exchange for the inclusion of all Pfizer drugs on the state's new Medicaid drug formulary. As part of the agreement, Pfizer assumed complete financial risk that the DM programs will contribute to reduced health care expenditures among the state's chronically ill Medicaid enrollees over the next two years.

### Conclusion

Medicaid DM programs are intuitively appealing because they are designed to save money by improving patient health, not by denying access to health care services or by limiting program eligibility. DM programs aim to provide all appropriate care, support prevention, and overcome some of the fragmentation in the current health care delivery system. In addition, these programs target the patients that account for the vast majority of Medicaid spending, improving the likelihood that significant savings can be found.

Nevertheless, there are major operational challenges to implementing disease management programs and it is unclear whether they will ever reach their full potential. With Medicaid expenditures increasing dramatically, however, many states are becoming increasingly motivated to test new approaches to hold down costs. If DM lives up to its promise, many more

states are likely to follow the lead of the states that have established these pilot programs. Improving care for enrollees with chronic illnesses may help states to use limited Medicaid dollars more efficiently, freeing up money to maintain eligibility standards at current levels and perhaps even expand coverage to additional low-income people. 

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### Endnotes

<sup>1</sup> Twenty states have received one-year federal grants of approximately \$1 million each from the Health Resources and Services Administration (HRSA) to study their uninsured population and formulate plans to reach universal coverage in the state. As part of this process, many states are examining whether to expand their Medicaid programs to cover more low-income people.

<sup>2</sup> Disease management overlaps considerably with other care models such as case management and proactive medical management. For simplicity, we use several of these terms interchangeably throughout the text. For a discussion of the different models, see R. Mechanic, "Proactive Medical Management," Forrester Research, Inc., April 2001.

<sup>3</sup> Recent studies estimate that just 10 percent of the population account for 69 percent of medical expenditures. See M. Berk and A. Monheit, "The Concentration of Health Care Expenditures, Revisited," *Health Affairs* March/April 2001: 9-18. Similar spending ratios exist within state Medicaid programs. For example, a 1997 Medicaid reform task force in Florida found that 10 percent of the Medicaid population accounted for "more than 60 percent" of program expenditures. See "The Florida Medicaid Disease Management Initiative," Florida Agency for Health Care Administration, February 2000.

- <sup>4</sup> For more information on the disease management industry, visit <http://www.dismgmt.com>.
- <sup>5</sup> A Kaiser Commission study found that nearly all (97 percent) of Medicaid MCOs sponsor at least one targeted case management program. The conditions that are most frequently case managed are pregnancy (78 percent), HIV/AIDS (73 percent), and asthma (72 percent). See A. Bernstein and M. Falik, "Enabling Services: A Profile of Medicaid Managed Care Organizations," Kaiser Commission on Medicaid and the Uninsured, October 2000.
- <sup>6</sup> PCCM programs are a loose form of managed care in which enrollees are assigned to a physician who coordinates their care for a monthly fee, in addition to regular fee-for-service payments. These Medicaid PCCM arrangements are apparently becoming more widespread. Diane Rowland, executive director of the Kaiser Commission on Medicaid and the Uninsured, has noted that "we see some states beginning to move away from capitation to primary care case management." "Ohio Struggles To Rescue Managed Medicaid Program," *Managed Care Journal*, January 2001.
- <sup>7</sup> S. Connors et al, "Contracting for Chronic Disease Management: The Florida Experience," Center for Health Care Strategies Informed Purchasing Series, March 2001.
- <sup>8</sup> National Pharmaceutical Council, "Disease Management: Balancing Cost and Quality," October 1999. See also "Virginia Health Outcomes Partnership," [http://dmnow.org/resource/susan/VHOPDemProj\\_Final.PDF](http://dmnow.org/resource/susan/VHOPDemProj_Final.PDF)
- <sup>9</sup> "The Florida Medicaid Disease Management Initiative," Florida Agency for Health Care Administration, February 2000.
- <sup>10</sup> Center for Health Care Strategies, March 2001.
- <sup>11</sup> Florida officials note that automatic enrollment can have serious drawbacks. For example, the state may end up paying DMOs high monthly fees for a large number of enrollees, even though many of these enrollees will never be contacted by the DMO and will not receive any services from the vendor.
- <sup>12</sup> Center for Health Care Strategies, March 2001.
- <sup>13</sup> "Case Management for Utah Medicaid Hemophilia Population Proves Cost-Effective," Utah Department of Health internal report, February 2, 2000.
- <sup>14</sup> Agency for Health Care Administration, February 2000.
- <sup>15</sup> Center for Health Care Strategies, March 2001.
- <sup>16</sup> In Virginia, approximately 33 percent of the physicians within the pilot program area who had patients with ER visits for asthma attended the seminars. (See L. Rossiter et al, "The Impact of Disease Management on Outcomes and Cost of Care: A Study of Low-Income Asthma Patients," *Inquiry*, Summer 2000: 188-202.) Post-training surveys indicated that the physicians who did attend acquired an excellent understanding of the course material and most who participated said the information would have a positive impact on their practices. In evaluations of the West Virginia seminars on diabetes, 100 percent of attendees ranked the course either four or five out of five possible points, and 84 percent agreed or strongly agreed that they would implement all of the suggested treatments in their practices. West Virginia also made the seminar material available on CD-ROM and on the Internet. (The West Virginia Health Initiatives Project: Status Report, October 2000.)
- <sup>17</sup> To achieve greater efficiency in their training work, the DMO had hoped that HIV/AIDS patients would be clustered among only a few primary care physicians; they found that this was not the case. Most MediPass providers see fewer than five HIV/AIDS patients. Center for Health Care Strategies, March 2001.
- <sup>18</sup> Ibid.
- <sup>19</sup> Based on postings from executive officers of the organizations on a disease management listserve.
- <sup>20</sup> Physicians are required by the state to provide encounter level data/medical records to the DMOs. According to the Center for Health Care Strategies, the state has also been "instrumental in providing clarity and direction to the clinics regarding their patient confidentiality concerns." Center for Health Care Strategies, March 2001.
- <sup>21</sup> Virginia found that seeking physician involvement in developing care guidelines was time-consuming and basically led to a ratification of existing guidelines. States need to weigh the benefit of physician buy-in against the costs of going through this process.
- <sup>22</sup> Rossiter et al, *Inquiry*, Summer 2000.
- <sup>23</sup> Despite the successes of the VHOP pilot program, Virginia has now moved to a much less labor-intensive and less expensive DM program aimed at reducing drug interactions (see Table 1).
- <sup>24</sup> See "Pfizer Ducks Pressure on Prices by Helping State Save on Medicaid," *Wall Street Journal*, July 9, 2001.



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