Overview of Medicaid capitation and case-management initiatives

by Deborah A. Freund and Edward Neuschler

Case-management programs have grown in number and in acceptance in the Medicaid program since 1981. In this article, we review their structure and incentives as well as what is known about their impact on cost and use.

These programs also have been difficult to implement, posing myriad management challenges for prepaid program managers and State administrators. We highlight the problems in the following areas: eligibility, enrollment, rate setting, and management information systems.

Introduction

Finding the most cost-effective means of delivering health services has become a principal concern of the Medicaid program. This concern has led to experimentation with competitive strategies that rely heavily on contracting with alternative delivery systems, including health maintenance organizations and other types of managed care programs. In this article we discuss the structure of Medicaid capitated managed care programs, the implementation experience, and early research results regarding their impact on cost and use.

Rationale for managed health care

Managed health care programs that include health maintenance organizations (HMO's) and health insuring organizations (HIO's) have been undertaken as one possible solution to the problems of high costs of care and lack of access to primary and acute care under Medicaid. Often cited (Freund, 1984) indicators of problems in Medicaid include the following:

- Lack of adequate access to primary care in many areas.
- Inappropriate use of expensive hospital emergency rooms for routine care.
- Indiscriminate "doctor shopping," resulting in too many tests, prescriptions, and unnecessary office visits.
- Excessive rates for inpatient hospital use by Medicaid enrollees compared with those for the general population, both in admissions and inpatient days per 1,000.

Clearly, many Medicaid beneficiaries lack a usual source of coordinated, ongoing care. Access to primary care services is limited in many low-income areas; and the most available provider, often the hospital outpatient department, has higher costs and is generally not structured in a way that assures appropriate coordination of care and an ongoing doctor-patient relationship.

Reprint requests: Deborah A. Freund, Ph.D., Department of Health Policy and Administration, University of North Carolina, School of Public Health, 263 Rosenau Building 201H, Chapel Hill, North Carolina 27514.

These problems are generally recognized as contributing to cost increases in the Medicaid program; but it is important to note that the episodic nature of care, the lack of continuity in source of care, and the lack of preventive services also may indicate inaccessible or poor quality medical care.

To remedy both the cost and the access or quality problems, States have undertaken a variety of managed health care initiatives for their Medicaid populations. Whatever the specifics of the approach, the goals of these initiatives are to link Medicaid recipients with reliable sources of ongoing, coordinated primary care; to reduce unnecessary and inappropriate use of expensive inpatient and emergency room care, as well as excessive prescriptions and laboratory tests; and to improve access to both routine and urgent primary care. These goals are expected to be attained and program cost savings realized at the same time.

Legislative background

The development of the wide variety of managed care approaches under Medicaid has been stimulated by recent Federal legislative changes. In 1981, the Omnibus Budget Reconciliation Act (OBRA, Public Law 97-35) made a number of changes in Federal law that permitted a variety of alternative financing and delivery approaches to be developed within Medicaid. States now are permitted to establish their own qualification standards for HMO's serving Medicaid patients, and HMO's contracting with Medicaid are permitted to have up to 75 percent Medicare and Medicaid enrollment. Further, waivers of selected Federal Medicaid requirements were authorized under section 1915(b) to permit States to establish primary care case-management systems for their Medicaid recipients and to select Medicaid providers based on their cost effectiveness. These waivers include permitting States to limit freedom of choice of provider, modify payment arrangements with selected providers, and allow for operating Medicaid programs that are not uniform across the State.

Although most State Medicaid programs were familiar with the HMO concept, the newer approaches to managed health care were almost completely unknown and untried in 1981. Thirteen States have

since used the new waiver authority to implement primary care case-management systems, and others have them under development. A number of States are aggressively pursuing expanded HMO enrollment of Medicaid recipients; and several others are pursuing prepaid approaches under the preexisting demonstration waiver authority. The growth in enrollment in managed care programs since 1981 is shown in Table 1.

Primary care case management

All the initiatives discussed in this article involve primary care case management (PCCM) directly or indirectly. This concept of managed care is in essence a coordinating and rationing strategy designed to make the unique gatekeeping role of the primary care provider the key to care management and cost control (Freund, 1986). In these programs, Medicaid recipients select a case manager—a physician or other primary care provider such as a clinic or HMO. The case manager provides primary care directly and, except in a bona fide emergency, must authorize in advance all other care received by the patient, including hospital or specialty care. The case manager must be available by telephone 24 hours a day, 7 days a week (or arrange for such coverage) to handle urgent care needs. The programs vary in the financial incentives they offer to case managers and other providers of care, in the organizational arrangements they use, and in the nature of recipient participation.

Managed health care under Medicaid

Combining three dimensions of variation (financial incentives, organizational arrangements, and recipient participation), five broad approaches to managed health care have emerged in the State initiatives undertaken to date (Neuschler and Squarrell, 1985).

Table 1

Growth in the enrollment of Medicaid recipients in health maintenance organizations and other prepaid health plans, by State: 1981 and 1986

State	Number of—		Approximate enrollment	
	HMO's[1] June 1981	PHP's March 1986	June 1981	June 1986
Totals:				
Plans	54	129	281,926	840,849
States	18	25	—	—
Alabama	—	1	—	828
Arizona[2]	—	16	—	119,237
California[2]	13	12	132,079	218,475
Colorado[2]	2	3	2,753	6,796
Connecticut	—	1	—	362
District of Columbia	1	1	501	110
Florida[2]	1	4	1,178	11,988
Hawaii	1	1	2,925	2,342
Illinois[2]	2	7	1,319	81,936
Indiana	—	1	—	2,237
Maryland	6	5	18,105	18,460
Massachusetts	4	8	4,117	4,744
Michigan[2]	5	7	59,241	90,128
Minnesota[2]	4	9	576	9,321
Missouri[2]	—	5	—	18,941
New Hampshire	—	1	—	369
New Jersey	—	2	—	1,001
New York	4	7	31,554	42,587
Ohio[2]	2	14	7,001	45,860
Oregon	1	1	5,715	6,253
Pennsylvania[2]	1	4	1,500	18,597
Rhode Island	1	1	186	217
Utah	1	1	5,662	9,178
Washington	3	3	6,601	6,240
Wisconsin[2]	2	14	913	124,642

[1] Plans with signed contracts, but no current enrollment have been excluded.
[2] This State and its data are used to highlight those States with significant enrollment growth.

NOTES: Data are for the 5 years after the enactment of the Omnibus Budget Reconciliation Act, Public Law 97-35. HMO's is health maintenance organizations. PHP is prepaid health plan.

The categories are not mutually exclusive, and some initiatives encompass multiple models. They are as follows:

- Continuation of the traditional fee-for-service Medicaid program, but adding the requirement that recipients select a primary care provider or case manager.
- Contracting out the operation of the PCCM system to a risk-sharing intermediary called a "health insuring organization" (or HIO) that is paid on a fully capitated basis.
- Contracting directly and solely with HMO's or other prepaid health plans (PHP's) on a capitated basis, and requiring that recipients choose among the available prepaid plans.
- Contracting, either by the State or by an HIO, with primary care providers (PCP's) on a partial capitation basis.
- Encouraging enrollment of Medicaid recipients in HMO's and other prepaid health plans (PHP's) and maintaining the traditional Medicaid system as an option.

We now briefly describe each of these variations.

Traditional fee-for-service Medicaid

Fee-for-service PCCM systems make the fewest changes in the traditional organization of the health care system. The Medicaid program requires recipients to choose and enroll with a primary care physician or clinic that then provides primary care directly and must give prior authorization for all inpatient care and referrals to specialists. Except in a bona fide emergency, services not authorized by the case manager are not reimbursable.

Some fee-for-service PCCM systems pay the case manager a small case management fee, typically $3.00 per enrollee per month, in addition to the standard payment for services the case manager receives directly. This serves to compensate the case manager for the extra effort involved in being available 24 hours a day and in coordinating all referrals. There are, however, no direct financial incentives to the case manager to encourage cost-effective care. Under this approach, the expectation of savings relies on case manager coordinating capacity, physician professionalism, prohibition against unrestricted use of hospital emergency rooms, and effectiveness of any utilization review and information feedback system the State may have established. The States that have adopted this approach are listed in Table 2.

Capitated health insuring organizations

A potential drawback of fee-for-service PCCM systems is that budgetary savings are not guaranteed, as they are under capitated arrangements such as HMO's. Because traditional HMO's often express reservations about serving the Medicaid population, Medicaid programs have used a health insuring organization (HIO) as a means of purchasing coverage from a third-party payer or fiscal intermediary for a monthly premium. Under Federal Medicaid regulations, an HIO is " . . . an entity that (a) pays for medical services provided to recipients in exchange for a premium or subscription charge paid by the (state) agency, and (b) assumes an underwriting risk." [42 Code of Federal Regulations 434.2]. Prior to 1981, the HIO option had been used only in Texas and in one area of California, and no new HIO's had been set up since 1972. The new flexibility to establish PCCM systems, granted by OBRA, made HIO arrangements both possible and more feasible.,

Practically speaking, to pursue the HIO-PCCM approach, a State establishes an organization (sometimes called a "health authority") that is not itself a provider of care, but that meets State insurance requirements and is willing to contract to pay for all or most acute care Medicaid services on an at-risk basis. The State then requests a waiver from the Health Care Financing Adminstration to permit the HIO to implement a PCCM system. The HIO subcontracts with the actual providers of care (primary care physicians and clinics, specialists, and hospitals) and pays them in a variety of ways, including fee-for-service, partial capitation, per diem, or by prospective payment based on diagnosis-related groups. Savings to the State and to the Health Care Financing Administration are virtually guaranteed, because the HIO is paid a fixed per capita rate that is less than the estimated equivalent costs under the fee-for-service system—often 95 percent. The capitation rate generally varies with the aid category covered under the HIO.

The combined HIO-PCCM approach has been successful in reducing costs in Santa Barbara County in California (Freund, 1984; Gibson-Kern, 1984) but a Monterey County plan, also in California, went bankrupt because of the lack of adequate utilization controls and a management information system (Garfinkel et al., 1985). The Citicare program in Kentucky served all Aid to Families With Dependent Children (AFDC) recipients in Jefferson County, Kentucky, from July 1983 until it was terminated by the State a year later for political reasons (Freund, 1984). Other HIO's that are under development or have recently begun operation are listed in Table 2.

It is significant to note that use of the HIO alternative has been severely restricted by the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 (Public Law 99-272), enacted April 7, 1986. This law now requires HIO's to meet the same requirements as Medicaid or Medicare contracting HMO's, including maintaining a non-Medicaid enrollment of at least 25 percent and

Table 2

Medicaid managed health care projects, by State

State	Program name	Recipient participation
Traditional Medicaid with primary care case management		
Operational:		
Colorado	Primary Care Physician Program	M
Connecticut	Middlesex Primary Care Network	M
Michigan	Physician Primary Sponsor Plan (Detroit, Wayne County)	M
Utah	Choice of Health Care Delivery: PCN or HMO	M
Kansas	Kansas Primary Care Network	M
	Patient Access and Care System (KenPAC)	M
Tennessee	Maury County Case Management Project	M
Tennessee	Memphis, Shelby County Pediatric Case Management	V
Prepaid capitation contracts with multiple HMO's		
Operational:		
Arizona	Arizona Health Care Cost Containment System	M
Missouri	Managed Health Care Project (Kansas City) (has small fee-for-service physician option)	M
Minnesota	Prepaid Medicaid Demonstration	M
New York	Monroe County MediCap Plan (Rochester)	M
Oregon	Capitated Physician Care Case Management Program (Portland)	M
Wisconsin	HMO Preferred Enrollment Initiative (Madison and Milwaukee)	M
Under development:		
California	Expanded Choice of Health Care Program (San Diego County, part of Los Angeles County (development suspended)	M
Ohio	Cleveland Health Care Alternatives	M
PCCM through health insuring organizations		
Operational:		
California	Monterey County Health Initiative (terminated early 1985)	M
California	Santa Barbara County Health Initiative	M
Kentucky	Citicare Primary Care Network (Louisville) (terminated June 1984)	M
Pennsylvania	Health PASS: Philadelphia Accessible Services System	M
Tennessee	Medicaid Plus	V
Washington	Kitsap Physician's Service Alternative	M
Under Development:		
California	San Mateo Organized Health System	M
Connecticut	Hartford Health Network	M
Contracting with PCP's on a partial capitation basis		
Operational:		
California	Primary Care Case Management	V
Massachusetts	Competitive Managed Health Plans	V
Michigan	Capitated Ambulatory Plan (Wayne County, Kalamazoo)	V
Nevada	University of Nevada School of Medicine (Reno and Las Vegas)	V
New Jersey	Medicaid Personal Physician Plan	V
New York	Suffolk County Children's Medicaid Program	V
North Carolina	Capitated Gatekeeper with Incentive (Wilson County)	
Oregon	Capitated Physician Care Case Management Program (Eugene-Springfield)	V

NOTES: M is mandatory. V is voluntary. PCN is primary care network. HMO is health maintenance organization. PCCM is primary care case management. PCP is primary care physician.
SOURCE: National Governor's Association: Center for Health Policy Studies, 1985.

permitting disenrollment on demand.[1] HIO's have customarily been established to serve exclusively the Medicaid population. Enrollment in HIO's generally has been mandatory. Thus, in the future, HIO's are likely to find this enrollment restriction difficult to meet. Those HIO's already in operation are permitted to continue under the legislation.

Contracts with health maintenance organizations

A number of States are aggressively pursuing enrollment of Medicaid recipients in HMO's and other prepaid health plans, using their new authority to enroll Medicaid recipients in HMO's that meet State, but not Federal, certification standards. Wisconsin and Arizona are the primary examples of this approach. The Arizona Health Care Cost Containment System (AHCCCS) includes both Medicaid eligibles and non-Medicaid indigent families and individuals. Operating statewide, the program requires all eligibles to select a participating prepaid plan in those areas (Vogel, 1983; Freeman and Kirkman-Liff, 1985; Neuschler and Squarrell, 1985). Wisconsin requires all AFDC recipients in Madison and Milwaukee to select 1 of 14 participating HMO's.

Several other States have increased their Medicaid HMO enrollment by also instituting primary care case-management systems at the same time. For example, Colorado, Michigan, and Utah all exempt their HMO enrollees from the requirement to select a primary care physician, because the HMO plays exactly that role. Because of the implementation of its Physician Primary Sponsor Plan, Michigan has noted a more than 50-percent increase in HMO enrollment. The enrollment increase for Utah has exceeded 60 percent, and that for Colorado has been almost 150 percent.

Partially capitated providers

A number of States have established prepaid arrangements that are only partially capitated. Examples include the New Jersey Personal Physician Plan and the Michigan capitated Ambulatory Plan. Typically, under these programs, the primary care case manager receives a capitation payment that covers the basic primary-care services the case manager provides directly and, perhaps, laboratory and X-ray services. Hospital services are not covered under case manager capitation except in one of the demonstration projects. A variety of financial incentives can then be used to encourage the case manager to use inpatient and referral care judiciously. Usually, these involve some form of shared savings under which case managers receive a bonus if use of inpatient and specialist care by their enrolled patients is lower than expected. States using a partial capitation methodology are listed in Table 2.

Voluntary enrollment: Health maintenance organizations

A number of States are seeking to increase voluntary enrollment of Medicaid recipients in HMO's and other managed care alternatives without waivers. For example, Illinois recently used the OBRA-broadened Medicaid HMO definition to increase the number of prepaid plans available to Medicaid recipients in Chicago from two to seven. Enrollment has increased from about 1,300 before OBRA to nearly 82,000 as of March 1986.

Other States are actively seeking prepaid contracts with federally funded community health centers, many of which do not need to be formal HMO's in order to serve Medicaid patients on a prepaid basis. For example, Pennsylvania solicited community health centers for prepaid capitation arrangements, resulting in one new prepaid contract. Ohio, New York, and Pennsylvania have granted State funds to Medicaid providers, many of them community health centers, that wish to become HMO's. Missouri contracts with two neighborhood health centers under its demonstration. Ohio now has 14 contracting HMO's, compared with 2 before OBRA, and enrollment has grown from 7,000 to almost 46,000. (For similar State initiatives, see Table 2.)

One of the difficulties of increasing Medicaid enrollment on a completely voluntary basis is the lack of tangible incentives for Medicaid recipients to join prepaid plans. Illinois used a negative incentive by establishing several copayments in the traditional Medicaid program, including a $3 or $2 per day copayment for inpatient hospital care (National Governors Association, 1985). State Medicaid benefit packages are usually quite generous, making it hard for HMO's to offer additional services as an inducement to enroll. Because recipients do not pay any premium for their coverage, HMO's cannot attract Medicaid enrollees through lower out-of-pocket premium payments. One strategy often used by States is to offer 6 months or more of guaranteed eligibility to Medicaid recipients who elect to enroll in a prepaid plan and who agree to remain enrolled for the guarantee period. This eligibility-enrollment guarantee is seen as one of the few incentives available to encourage Medicaid recipients to enroll in HMO's.

Eligibility-enrollment guarantees serve another purpose as well. One of the difficulties prepaid plans have in accommodating Medicaid enrollees is their high turnover rate, resulting from a loss of Medicaid eligibility and from voluntary disenrollment. High turnover rates also tax State administrative resources. This high turnover means that HMO's serving Medicaid patients must market themselves aggressively

[1] Recent legislative changes—Deficit Reduction Act (DEFRA) of 1984 and COBRA of 1986—have loosened the disenrollment-on-demand requirement somewhat. States may now establish 6-month enrollment periods for federally qualified HMO's that fully meet the 75-percent rule and for prepaid plans based at federally funded community health centers. Disenrollment for good cause must still be permitted at any time. Nonfederally qualified HMO's must still permit disenrollment without cause subject to one calendar month notice.

and continuously just to keep their Medicaid enrollment from declining. Many are not willing to make this effort.

Recipient participation

Implicit in the five major approaches just outlined are two distinct alternatives for recipient participation in managed health care projects: mandatory enrollment and voluntary enrollment.

Mandatory enrollment

With mandatory enrollment, Medicaid recipients must choose among the HMO's or PCCM systems offered, and they are not allowed to remain in traditional Medicaid. Within any managed-care program, however, freedom of choice among authorized providers is strictly maintained. Most of the programs require recipients to choose a provider. Recipients are allowed to change primary care providers once a year or after a legitimate grievance, subject only to the time required to process the change request. PCCM programs do not eliminate choice; rather, they seek to assure that recipients are linked with a competent health care provider and, therefore, will have access to prompt, well-coordinated care when it is needed.

Voluntary enrollment

Under voluntary enrollment, Medicaid eligibles may select enrollment in the PCCM program or in any available HMO, or they may choose to stay in the traditional fee-for-service system.

States that have adopted mandatory enrollment (M) and that have voluntary enrollment (V) are shown in Table 2.

Results: Implementation and administrative issues

Since 1983, the Health Care Financing Adminstration and other funding sources have supported evaluations of several aspects of managed care programs including but not limited to their cost-saving potential, the quality of care delivered, and their ease or difficulty in implementation (Research Triangle Institute, 1983; SRI International, 1986; James Bell, 1983; and Rand Corporation, 1985). Because these evaluations are not yet complete, assessment of program impacts is limited to case studies of the implementation process and interim results reported by the States. Firm conclusions must await the completion of more rigorous analyses.

PCCM programs have often been difficult for State Medicaid agencies to operationalize and manage effectively (Freund, 1986). Individuals with appropriate administrative and technical skills often are not available within these agencies. The time required to progress from program conception to implementation has frequently exceeded initial expectations because of administrative and political barriers.

Although delays serve to make the programs more pragmatically designed, many operational issues either surface after implementation or gain greater prominence once enrollment and service provision begin. A number of these have proven very critical to program success.

Eligibility and enrollment

Many programs have attempted to sequence initial enrollment by beginning with newly certified eligibles and then proceeding to enroll others at the point of recertification for cash benefits. The enrollment process illustrates the critical link of program enrollment to eligibility certification and the reliance of the Medicaid programs (often in health departments) on the welfare-social service subsystem. Often eligibility determination workers are ill-prepared and/or not interested in this task. As eligible individuals become certified and choose a provider, information must be provided in a timely fashion to providers either directly or through the PCCM systems. Delays or breakdowns in this process can be disruptive to the program, harmful to the eligibles, and costly to the providers who become financially responsible for providing and/or authorizing services once the recipient is enrolled in their panel.

Each plan provides the Medicaid beneficiary with the opportunity to change case managers under specified conditions. These changes are usually monitored to prevent capricious switching or to identify if the reasons for the change suggest any indication that services provided are not adequate. In the demonstrations where these changes are being studied closely (such as in Arizona, Santa Barbara, New Jersey, and Kansas City, Mo.), the extent of changes are not substantial, especially given that many recipients are going to new providers for the first time. Most grievances appear to arise from patient lack of understanding of case manager gatekeeping and prior-authorization responsibility.

Provider enrollment selection and payment

Characteristics of the local provider market, including supply, existing Medicaid fees, and prior experience with prepayment, appear to be significant factors related to the development of case-management programs (Freund, 1984; Haynes, 1984). Low fees have fostered interest in exploring alternative payment systems as has concern about expanding or maintaining market share (Haynes, 1984). Skepticism about the complexity of the programs, the capacity of Medicaid to fund and manage them adequately, the disruption of traditional

patterns of care and provider relationships, and the compatibility of Medicaid recipients, and eligibility with prepayment has often made recruitment of physicians difficult.

The negotiation of mutually satisfactory risk sharing and payment arrangements lies at the heart of case management, and it often determines the willingness of a provider to participate. In case-management programs, State Medicaid agencies or their contractor (an HIO) negotiate arrangements and rates with subcontracted participating medical providers. These systems attempt to provide a balance between attaining cost savings and attracting providers with the capacity and reputation for quality care. These arrangements, in effect, operationalize theoretical assumptions about risk sharing and how it is expected to produce program cost reductions through reductions in service use, unit costs, substitution of less costly forms of care, or combinations of all of these. Programs that maintain fee-for-service payment systems for case managers (with or without a management fee) represent the least risk sharing; and at the other end of the spectrum are programs that fully capitate the case manager for all covered enrollee services.

The amount of payment received by providers, as well as the method of payment, takes on great significance in case-management programs. Thus, it is not surprising that the highly complex process of rate setting (e.g., setting the capitation rate for HMO's or HIO's) has emerged as one of the key issues in the long-term viability of these programs. Many programs have employed actuarial consultants to aid them in addressing the many important technical, equity, and political issues involved in initially setting and then adjusting by fine tuning and updating these rates. Changes in methodologies or assumptions from one year to the next can destabilize or disenchant the provider community on the one hand or greatly improve relations on the other.

The complexity of the rate-setting process has frequently delayed States from developing rates in a timely manner. Demonstration startups have been delayed. Existing demonstrations have been forced to operate on old rates on an interim basis while awaiting new rates to be approved.

Generally, States attempt to derive capitation rates from a computed fee-for-service baseline developed from Medicaid claim files. A few States develop rates from the cost experience of private patients of the HMO with which it is attempting to negotiate a contract. The fee-for-service base can change, depending on a number of technical factors that may be disputed among the State, HIO, and HMO. These technical factors include the following:

- How to impute previous utilization experience when there has been little in the capitated region.
- Whether contract health plans or HMO's should be permitted to accrue interest on their capitation payments.
- How to estimate the impact of Medicaid program changes that have occurred after the base period.

Program management and performance monitoring

Perhaps the weakest element of program operations has been the failure to develop administrative controls, particularly management information systems (MIS's), and put them in place on a timely basis. As the case management concept has become better understood, the significance of providing meaningful feedback data on recipient utilization experience to case managers has become increasingly apparent. In addition, PCCM systems must develop their own treatment authorization, utilization review, concurrent hospital review, and discharge planning systems to assure that all care is appropriately authorized in advance and monitored if it is to be paid for. Also, more detailed reporting systems must be designed for quality assessment monitoring.

Most programs acknowledge that quality of care assessment receives inadequate attention during startup phases. This is not only because of the absence of suitable data systems but also because higher priorities are given to provider recruitment, patient enrollment, and claims payment. The grievance and complaint systems initially implemented tend to focus on administrative matters. It remains to be seen whether mature programs can and do develop quality assurance programs, and whether discernible differences in quality between case-management programs and fee-for-service Medicaid are found.

Results regarding cost and use

Most States have found that fee-for-service PCCM systems take a good deal of time to set up and implement. Further, the usual delays in submission of bills under a fee-for-service PCCM system mean that cost savings or utilization reductions cannot be accurately measured until a year or more after the close of the period under study. Most programs did not begin until mid-1982, and they did not have significant enrollment until 1983. It was not until 1983 that HCFA-funded evaluations of PCCM programs, and final results of these evaluations are not expected until 1987. Thus, only preliminary findings from these studies or the States can be offered.[2]

[2]The following data were provided to the co-author in a telephone survey conducted in early 1986 with personnel from the responsible State administrative agencies. Most of these data are already available in written form in various State reports or are expected to be forthcoming.

Fee for service

The Utah PCCM has enrolled about 30,000 recipients in its single major urban area (Freund, 1984). There have been few recipient complaints, and preliminary results show a 36-percent reduction in emergency room claims, a 12-percent reduction in pharmacy claims, and a 25-percent reduction in the number of different physicians seen. Also, as could be expected, there was some increase in total expenditures for physicians' services, reflecting a desired shift away from more expensive services. Overall, the case-management initiative seems to have saved about 3.4 percent compared with the previous noncase-managed system. Operating a very similar program, Colorado expects an annual savings of about $2.7 million on a base of about 72,000 recipients.

The Michigan Physician Primary Sponsor PCCM began in July 1982, but it has had severe administrative difficulties in handling the logistics of the choice process. As a result, only about one-half of the target population was enrolled as of July 1985 (Freund, 1984). Largely because of the slow enrollment, savings estimates have only recently become available. Based on the first 12 months of data for a randomly selected sample of enrollees (experimental group) and nonenrollees (control group), savings (net of case-management fees and administrative costs) are estimated at about $1.40 per enrollee per month, or about 2 percent. Statistically significant utilization reductions were found for office visits, laboratory and X-ray tests, and prescription drugs. Total net savings for calendar year 1984 were estimated to be in the range of $1.0 to $1.2 million. Recipient satisfaction has increased as the program has become more familiar.

The Kansas Primary Care Network includes recipients under the State's General Assistance-Medical Care program (MediKan) and those in the AFDC population. A preliminary study of the first 6 months of the program shows significant savings for the general assistance population—almost $20 per month per eligible. (This figure does not include offsetting administrative costs of the $3.00 per month case-management fee paid under the program.)

Mandatory capitated programs

Savings as a result of the mandatory enrollment capitation programs appear to be in the 5-percent range. If the initial estimate of fee-for-service costs for the State is accurate, State savings are assured. The most salient issues affecting these savings are whether the HIO or the plan itself can control costs enough to stay within the capitation rate and remain solvent, and whether the financial incentives will lead to restricted access, denial of needed care, or poor quality care.

Of the two operational county-based HIO's in California that were partially capitated, Santa Barbara has been financially successful. Santa Barbara reported cost savings of $250,000 to $500,000 over the first 3 years of operation (Gibson-Kern, 1984). Savings are attributed more to reductions in emergency room use and doctor shopping than to sharp reductions in hospital use. Officials from Santa Barbara believe hospital use rates were already fairly low because of previously implemented regulatory strategies. However, the Monterey program filed for bankruptcy after its first operational year. Factors contributing to the failure included the following (Garfinkel, 1985):

- Failure to place physicians at risk.
- Guaranteeing higher payments to hospitals than in the base year.
- Absence of adequate management information.
- Lack of a prior authorization system.

The Citicare program in Louisville, Kentucky, an HIO, operated well within its capitation revenues, thus, saving about 10 percent more than the original projections (Freund, 1984). However, there was opposition to the plan from some physicians. Some consumers complained it was difficult to obtain referrals for specialist care; and political considerations appear to have played some role as well. The program closed in June 1984. However, after a 3-year hiatus, the State is now implementing a similar program statewide.

The partial capitation approach has been the preferred method of paying primary care providers in the two HIO's that were financially successful (Santa Barbara and Citicare), but direct State experience with partial capitation is limited to date. The Oregon Physician Care Organizations have recently completed their first contract year, so no data are yet available. The Michigan Capitated Ambulatory Plans (CAP's) have been operating for a longer period, but results are still tentative. The CAP's receive a capitation payment equal to 100 percent of the estimated fee-for-service costs for physicians' services and ambulatory care, and they share in the savings if they reduce inpatient utilization, which continues to be paid by the State on a fee-for-service basis. Results for the first contract year were positive, with overall savings to the State estimated at about 10 percent. However, enrollments were small, and some plans started late and operated for less than the full year. The question of selection bias has been raised in this program. Preliminary results for the second contract year are even more strongly positive, but final results cannot be known until all hospital bills have been received.[2]

Programs designed around mandatory choice among competing HMO's also guarantee the States up-front savings, again assuming the initial fee-for-service estimate is accurate. For example, in 1985, costs were 5 to 7 percent below fee-for-service projections in Dane County, Wis., and 7 to 10 percent less in Milwaukee for the AFDC population. HMO's were required to bid no more than 95 percent of projected fee-for-service costs in Madison and no more than 93 percent of fee-for-service costs in Milwaukee. HMO's whose bids were lower received

preference in the assignment of AFDC recipients who did not exercise their right to choose their own plan. With about 9,500 recipients enrolled in Dane County and over 105,000 in Milwaukee County, Wisconsin expects to save between $12 and $13 million over the 1985-87 biennium. Recipient complaints have been few, although there have been problems with ambulance services; and some advocates have complained that the HMO's are not paying proper attention to child health screening requirements.

Selection bias issue

When enrollment in HMO's and other prepaid health plans remains voluntary, the question of savings to the State is complicated by the potential for biased selection. Although Medicaid HMO rates (based on a percent of expected fee-for-service cost) may be adjusted for such variables as geographic area and demographic characteristics of the enrollees, actual health care utilization patterns of the enrollees cannot be predicted with certainty. If the individuals who voluntarily choose to enroll in HMO's are healthier than the average individual in their group, the State will lose money or forego savings, because it will pay the HMO close to the average fee-for-service cost for individuals who would in fact have used a significantly lower amount had they remained in the fee-for-service system. On the other hand, if the individuals who choose to join HMO's are sicker than the average individual in their group, the State will do well and the HMO's may lose money.

Mandatory enrollment in HMO's, as exemplified by Wisconsin, avoids the biased selection problem, at least as far as the State is concerned, by requiring that all Medicaid recipients (or all of some subset of Medicaid recipients) choose among the available prepaid plans. However, competing HMO's, or case managers, may suffer adverse selection or gain from preferred selection, depending on which types of Medicaid recipients select them. Absent any empirical evidence to suggest biased selection is occurring, States usually feel comfortable that they are saving money when Medicaid recipients voluntarily enroll in HMO's. This assumption will be tested in all HCFA-funded evaluations.

Summary

Although most State managed health care initiatives have not been operational long enough to have yielded definitive results, managed care remains a promising approach to the cost and access-quality issues of providing health care to the poor under Medicaid. With appropriate staffing, planning and time, and attention to MIS and quality assurance systems design, programs can be successfully implemented in a timely fashion. Most preliminary evidence on savings is favorable, and few significant access-quality complaints have surfaced so far. Major research initiatives are underway that are expected to provide much needed empirical evidence to evaluate this strategy of managed care.

Acknowledgments

The authors gratefully acknowledge the research assistance of Karen I. Squarrell, Suzanne Hansen, and Robert Hurley and the secretarial support of Betty Owens and Regina Wooten.

This article was partially supported by a grant from The Robert Wood Johnson Foundation to The National Governors Association and by the Health Care Financing Administration through Contract No. 500-83-0050 to the Research Triangle Institute, The University of North Carolina, The Medical College of Virginia, Lewin and Associates, New Directions for Policy, and Tillinghast, Nelson, and Warren. The opinions expressed in this article are those solely of the authors and not The Robert Wood Johnson Foundation or the Health Care Financing Adminstration.

References

Bell, James, and Associates: *Medicaid Program Evaluation.* Contract No. HCFA 500-83-0058. Prepared for the Department of Health and Human Services. Arlington, Va., 1983.

Code of Federal Regulations: Title 42, Part 434, Subpart A, Section 434.2, Nov. 30, 1983.

Freeman, H., and Kirkman-Liff, B.: Health care under AHCCCS: An examination of Arizona's alternative to Medicaid. *Health Services Research* 20(3):245-66, 1985.

Freund, D.: *Medicaid Reform: Four Studies of Case Management.* Washington, D.C. American Enterprise Institute, 1984.

Freund, D.: The private delivery of Medicaid services: Lessons for administrators, providers, and policymakers. *Journal of Ambulatory Care Management* 9(2):54-65, 1986.

Garfinkel, S., Zelman, W., Bryan F., and Freund, D.: *Financial Problems Contributing to the Insolvency of Monterey Health Initiative.* Contract No. HCFA 500-83-0050. Prepared for Department of Health and Human Services. Research Triangle Park, N.C. Research Triangle Institute, 1985.

Gibson-Kern, R.: *Evaluation of Medicaid Competition Demonstration: The Santa Barbara County Health Initiative.* Contract No. HCFA 500-83-0050. Prepared for the Department of Health and Human Services. Research Triangle Park, N.C. Research Triangle Institute, 1984.

Haynes, P.: *Summary of Case Studies of Medicaid Competition Demonstration Projects.* Contract No. HCFA 500-83-0050. Prepared for Department of Health and Human Services. Research Triangle Park, N.C. Research Triangle Institute, 1984.

Haynes, P., and Gibson-Kern, R.: *Evaluation of Medicaid Competition Demonstration: The New Jersey Medicaid Personal Physician Plan.* Contract No. HCFA 500-83-0050. Prepared for Department of Health and Human Services. Research Triangle Park, N.C. Research Triangle Institute, 1984.

National Governors Association. *A Catalogue of State Medicaid Program Changes, 1984-1985*, Washington, D.C., 1985.

Neuschler, E., and Squarrell, K.: *Prepaid and Managed Health Care in Medicaid: Overview of Current Initiatives.* National Governors Association, Center for Policy Research, Washington, D.C., 1985.

Research Triangle Institute: *Medicaid Competition Demonstrations Evaluation Plan.* Contract No. HCFA 500-83-0050. Prepared for the Department of Health and Human Services. Research Triangle Park, N.C., 1983.

Rand Corporation: *Prepaid Managed Health Care Demonstration.* Cooperative Agreement No. 99C 98489-9, 1985.

SRI International: *Evaluation of the Arizona Health Care Cost Containment System Second Implementation and Operation Report.* Contract No. HCFA 500-83-0050, 1986.

Vogel, R.: AHCCCS: A new Medicare-Medicaid model in Arizona. *N Engl J Med* 309(15):934-36, 1983.