

**RECORD OF SOCIETY OF ACTUARIES  
1995 VOL. 21 NO. 3B**

**HEALTH MAINTENANCE ORGANIZATION (HMO)  
ISSUES (HOT TOPICS)**

Moderator: JENNIFER R. DIX  
Panelist: JON HARRIS-SHAPIRO\*  
Recorder: JENNIFER R. DIX

*Current HMO issues (hot topics) will be discussed.*

MS. JENNIFER R. DIX: I'm an actuarial manager with KPMG Peat Marwick health actuarial practice, located outside of Philadelphia. The other panelist is Jon Harris-Shapiro. Jon is a senior consultant with Coopers & Lybrand in Philadelphia.

Jon and I will talk about two of the biggest issues facing HMOs right now. And that is the development of Medicaid and Medicare products. These two groups represent approximately 65 million lives in the U.S., which is more than the current HMO enrollment of about 50 plus million lives. I think the numbers speak for themselves. Group Health Association of America (GHAA) did a survey recently that said about 32% of HMOs had Medicaid contracts by the end of 1993. In 1994, another 7% of HMOs developed Medicaid contracts and in 1995, 27% of those planned to develop contracts. On the Medicare side, 24% had a Medicare contract by the end of 1993. Again, another 7% were developing Medicare products in 1994 and an overwhelming 39% were going to develop Medicare products in 1995. I think there's much that we, as actuaries, can do in developing these new products, as long as we understand some of the underlying issues.

Let me give you an overview on what we'll talk about. First, we will cover some basic information about the Medicaid program. Second, we'll get into some of the managed care solutions that are being employed by the various states. Third, we'll cover the opportunities for HMOs in this market, followed by some of the critical issues that we need to consider. Finally, I'll wrap up with some of the future trends in Medicaid managed care as I see them.

Medicaid is a national health care program that covers the poor. It covers a fairly diverse population, currently 34 million recipients. Twelve percent of these recipients are elderly people, 15% are blind and disabled, 23% are adults in families, primarily women, and the remaining 50% are children. Even though Medicaid is structured to cover the poor, approximately 60% of the poor don't qualify for Medicaid due to some of the specific eligibility rules that apply. The number of eligibles for Medicaid has increased over 50% since 1988. Some of this has been due to economic conditions and other factors.

Medicaid covers services that often go beyond some of the traditional services we offer to employee commercial groups. One example is transportation services, which provides transportation to and from a doctor's office if someone needs it. Also, there

---

\*Mr. Harris-Shapiro, not a member of the sponsoring organizations, is Senior Consultant with Coopers & Lybrand in Philadelphia, PA .

is definitely no cost sharing on the part of the recipient. There is a list of federally mandated services that have to be provided by Medicaid. These include things such as inpatient and outpatient hospitalization, physicians, mid-wife, certified nurse practitioners, lab and X-ray, certain preventative and screening services for children, family planning, and rural and federally qualified health clinics.

Some states offer additional services including prescription drugs, hearing aids, eyeglasses, etc. It's interesting to note that the elderly and the disabled services, particularly the long-term care, account for about 60% of Medicaid spending. Medicaid is financed by both the federal and state governments. It ran through the federal government's Health Care Financing Administration (HCFA). States have their own agencies dedicated and the name of the organization can vary by state.

States actually administer the program, including enrollment, claims processing, benefit design, and provider reimbursement. The proportion of payments paid by the federal government varies by state, depending on the per capita income level relative to the national per capita income. Generally, the range is typically 50–80%. In other words, the federal government generally pays about 50–80% of the state's Medicaid bill, the remainder being paid by the state.

Because the recipients are financially needy, again, there's very little cost sharing on behalf of the recipients. Medicaid spending has increased quite dramatically over the last decade. In 1994, the expenditures were ten times the expenditures of 1985. This has left the states with dual problems. They have to somehow improve access in the program. The problem with access is that many providers are not willing to participate in Medicaid because of the low reimbursement rate. At the same time, there's an awful lot of pressure from states to reduce spending. As a result, many states are turning to managed care as a solution to solve not only the cost problem, but also the quality problem as well. Forty-two states have some form of managed care. Some states are seeking to expand Medicaid eligibility to those who are currently uninsured. Financing of these additional people comes from the savings generated by managed care. Tennessee, for example, has added over 200,000 new people to its Medicaid books—people that were previously uninsured.

You have to be careful when you're talking about Medicaid managed care. I've read many articles on the subject, seen many statistics, and the term *managed care* gets thrown around a great deal. But really there's three models as I see it, and we have to be careful when we're reading an article on the subject to really understand what model or models are being talked about. The first model is a prepaid health plan (PHP), which looks very similar to an HMO, although it's not originally licensed as an HMO. In general, we do not accept full risk for all services. These types of plans have been around for quite a few years and they may accept partial capitation for some services and they're working towards accepting full capitation. The second model type, a primary care case management (PCCM) program, is a very common model. There are many states that have implemented this type of a program, where a Medicaid recipient signs up with a primary care doctor and that doctor is responsible for managing the care of that patient. And in return, the physician receives a fixed amount from the state, usually \$5–7 per member per month, as a management fee.

## HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

HMO is the third type. They're relatively new to the Medicaid market and they are usually a full risk, meaning that they're capitated for the full range of services they will provide for that recipient. HMOs are growing very quickly as a model for Medicaid managed care. In fact, they're the fastest growing type and that's what I'll focus on for the remainder of this presentation. The recent trend has been to apply to HCFA for waivers and implement mandatory managed care programs. This is done at the state level. Many of you have probably heard of these Section 1115 waivers. You may also have heard of another type of waiver called Section 1915 waiver. I won't go into detail, but it is important to know that the 1115 waiver is a more comprehensive type of waiver than 1915. The 1115 waiver allows the state to implement a broad-based mandatory managed care reform. It also allows the states to include other populations in the managed care programs. Ten states at this point have been approved. Many more states have either applied for a waiver or are considering applying. And the result is that there is a potential boom in Medicaid HMO enrollment. In fact, I estimate that in just the ten states that have been approved so far, at least 8–10 million additional lives can be enrolled in an HMO in the near future.

There's been dramatic growth in Medicaid HMO enrollment. In 1991, Medicaid HMO enrollment was a little over two million. It has quadrupled to over eight million as our estimate for 1995. By the same token, the number of HMO plans that serve the Medicaid population have also increased. Please note that through 1993, there wasn't much of an increase. Between 1994 and 1995 is where the increase has taken place.

So where are the opportunities for HMOs that are considering getting into this Medicaid market? For starters, HMOs can take some initiatives on their own by building partnerships with their state Medicaid agencies to provide voluntary coverage, even before the state has formally applied for any type of a waiver. This allows the HMO to have some input into the plan and the structure of the Medicaid managed care program. In states where a formal waiver has already been approved by HCFA, HMOs need to act quickly to respond to the states request for proposal (RFP). A handful of states are soliciting RFPs for the first time, even as we speak.

A third opportunity for HMOs lies in the formation of new partnerships with providers and other managed care organizations. Some of the examples of this are hospitals in urban areas, where the HMO might not be concentrated prior to this. Another example is perhaps an HMO in a local market that is more familiar with Medicaid. And finally, an example of some new partnership with HMOs signing up with federally qualified health clinics that previously provided care to the Medicaid population.

The result of these opportunities can be a substantial increase in the market share of an HMO, and if the care is managed properly, it can provide increased profitability. I personally feel that this can be a winning proposition for all the parties involved. The state can save money from increased quality of care, the HMOs have the opportunity to increase their marketshare and profitability, and the Medicaid recipient will receive better quality of care.

In order for this to truly be a winning proposition, Medicaid managed care has to be done right. The critical success factor for an HMO entering its market is understanding the characteristics of the Medicaid population, or the need for education and utilization management techniques that are vital to the success of the program. HMOs must

recognize that Medicaid managed care is an opportunity tool. Once they realize that fact, then the HMO can be very successful in the market.

What are some issues that HMOs should consider when they get into the Medicaid market? Well there are literally hundreds. What I tried to do is boil it down to a list of about seven major categories. That's what I'll be focusing on in the rest of the presentation. One of the most important issues particularly for us as actuaries, is understanding exactly how rates are determined. In some cases, the state sets the Medicaid HMO rates and the HMOs live and die by that rate. They'll accept the full capitated rate and they'll accept the full risk no matter what the actual utilization and cost end up being. In other cases, some states have made it an open bid process, where HMOs can come up with a bid and the HMO either accepts or rejects that bid. However, in those cases, the states still have some type of an upper payment in mind that they'll accept. In fact, it is required that states pay no more than their current fee-for-service equivalent rate to the HMO. Many states calculated a fee-for-service equivalent rate and then pay some percentage of that rate, typically 95%; they feel that would give them a 5% savings through the managed care.

The actuary to the HMO needs to look very carefully at the underlying fee-for-service experience being used. Particularly, the utilization and cost components by service. The actuary also needs to make sure that the populations and the services, for instance, mental health services, can be carved out properly. It's also critical to make sure that the fee-for-service data the state is using is credible. It's also very important to validate all of the projection assumptions that the state used to get from the historical experience to the projected period. In many cases, that can be three to four years.

Another key consideration is the number and the nature of the rate categories the state has set up. This can be anywhere from two rate categories to a dozen or more depending on the state. Usually the rate category will vary by age and sex of the recipient and the type of program. Typically, there will be different populations versus the social security income (SSI) population. You need to make sure that the number of categories are appropriate within the size of the population, or there is the possibility of getting burned should the demographic make-up of the group be different than what you were expecting.

Rates can also vary quite significantly by population. The Aid to Families with Dependent Children (AFDC) population, mostly women and children, have a rate that is one-tenth of the SSI population, which is primarily foreign and disabled. Finally, the HMO needs to be careful of the true underlying administrative costs and profit margins. Many HMOs fail to realize that the additional administrative requirements to the Medicaid market are very important. For instance, an education program may not be part of a commercial block of business. Specialties have to be considered because quite often there is some special recording that has to be done to the state. These all add up to the administrative expense margin. Also, often the state is calculating its fee-for-service equivalent rate without grossing up that rate for any administrative cost.

As I said before, Medicaid services are very broad. They're involved with commercial population. The HMO needs to understand exactly what services it will capitate for. There are two issues here. One is the HMO has to realize its services are broader and understand exactly what those extra services are. And second, many states have

## HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

excluded certain services from the capitation amount; in fact it's quite unusual for the state to have to pay for a full range of services. Most states have excluded at least something from the rate, specifically mental health. I've also seen prescription drugs excluded and, of course, long-term care for the elderly is another large carve out.

Another key strategic issue the HMO needs to consider is the type of population that will be counted under capitation. Again, you don't assume that the entire population will be activated. That's more the exception than the rule. Usually, with a subset such as the AFDC population and the SSI population that we capitated, there can be additional subsets that will be capitated within those two broad populations. HMOs need to understand the exact make-up of that group and also look at the sheer size of that population. The HMOs should also consider what new groups will be added.

Providers are typically paid about 70% of the Medicare fee by Medicaid. Medicare's lump is 20–30% over the reasonable and customary charges. The result is very little participation on behalf of the provider, particularly the physicians. The HMO that is getting into this market needs to consider whether it will be able to have more providers willing to participate. And it will have to walk that fine line between giving providers enough financial incentives to participate, but yet keeping the overall costs down so that profitability can be achieved.

The HMO must also seriously consider whether the providers that it does have are in the right location. Typically, the Medicaid population will not be located in the same place as the commercial population. Therefore, it's going to require recruitment in different locations.

Utilization management is key to the success of Medicaid managed care. In particular, we can give the example of emergency room usage, where Medicaid is typically, at least, 1,000 visits per 1,000 per year. That is fairly consistent across all age and sex categories for AFDC versus SSI. This is much higher utilization than in your commercial population which might run 150–200 visits per thousand per year. But if you compare emergency rooms to the primary care doctor, the HMOs not only save a large sum of money, but also deliver better quality of care at a more appropriate time.

That's a little easier said than done, and one technique that I've seen an HMO use is to actually contract with the hospital and the physician in setting up a primary care clinic. Rather than sending patients to the emergency room, where they're not truly reimbursed for care, the hospital will refer patients over to primary care clinics.

Another key utilization management issue is the level of funded programs that are in place to educate and provide the preventative care to the patient. Prenatal programs are a good example of this. However, don't assume that mothers will automatically sign up for a prenatal care program. It's also wise that patients know there is some type of service that is offered such as providing a free car seat for infants. That would make it a win/win situation for both the HMO and the pregnant mom.

A related management issue is that of quality assurance, which we have heard a little about in recent years. Quality assurance isn't typically unique to Medicaid. States as well as the federal government are getting more and more anxious to see some standardized quality reporting coming from the HMOs, so they can be assured that

Medicaid patients receive truly good, quality care. Recently, the state of Florida discovered some horrendous lack of quality issues in a few of the HMOs in that state. And that's caused quite a scandal down there.

I'll just touch on reinsurance briefly. Any HMO that does have Medicaid populations needs some form of reinsurance. Some states provide reinsurance for the HMO plan, others leave it up to the HMO to get its own insurance through a private carrier. This is a population of a high number of catastrophic claims, such as premature birth, AIDS, and disabled people with chronic conditions. The HMO must carefully weigh the risks that it's willing to accept versus those it wants to pass on to providers and reinsurers.

There are numerous issues relating to marketing and enrollment. First and foremost, we need to consider programs that are voluntary or mandatory. Obviously, mandatory programs will mean that the marketing effort will be significantly reduced. We also need to consider whether Medicaid will affect the image of the HMO. Training the marketing staff is also critical. The marketing staff needs to be sensitive to all sorts of populations and, in some cases, they need to be bilingual.

One problem with Medicaid managed care is the high turnover of enrollees. Typically, someone can be enrolled in Medicaid one month and not the next month. HMOs find it very hard to deliver good, preventive care to someone who is constantly in and out of the HMO delivery system. Some states have ended this problem by guaranteeing a certain minimum number of eligible months, such as six months or a year.

I think we will see more and more of an expansion of some of the nontraditional populations coming in under Medicaid managed care. This could mean even larger market shares for HMOs that choose to go into this market. Medicaid managed care efforts are primarily in the AFDC population. However, AFDC controls 30% of total expenditures, I think over the next few years the HMO will start to want control of the other 70%. And I think a smart HMO needs to start thinking about ways it can serve the disabled population and some creative ways to managed care there. Along the same lines, states are liable for the elderly. I think this will require perhaps a new type of partnership between HMOs and nursing homes and HMOs and adult day care and home care programs.

Finally, I think we will see the demand for objective standardized quality measurements increased. This is a phenomena going on throughout the HMO industry. They've become vital and successful dedicated managed care tools. The states feel that the HMOs are not providing quality care, and the whole concept of HMOs serving Medicaid could be in jeopardy.

MR. JON HARRIS-SHAPIRO: Medicare in this country covers primarily the elderly, which is age 65 and over. It also covers populations that meet certain disability requirements. What I want to talk about is the types of contracts that managed care companies can have with a Medicare program and with HCFA. I also will spend a little time going through some numbers, determining how the HMO gets paid, some of the nuances of federal filing requirements, and some of the nuances in doing a cost analysis.

## HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

We've had Medicare managed care for quite some time. There are basically four options for a company (Table 1). It can sign on to Medicare as a risk contract, meaning it receives a capitation rate, or it can get a cost-based reimbursement program. These are not cost plus, but they're an allocation method. Certain entities qualify that aren't HMOs, to contract under a health care prepayment plan (HCPP), these might be group practices or even union retiree plans. We're all familiar with the Medigap plans that involve government contracts where the Medigap payer actually becomes a provider for HCFA. Then there is the social health maintenance organization (SHMO), also an HMO concept, which is a demonstration project that has been going on for quite some time. There are probably about a half a dozen in the country and the SHMOs are trying to blend community-based long-term care with the acute care settings that are typically covered by the Medicare benefits package.

**TABLE 1  
MEDICARE HMO ENROLLMENT AS OF FEBRUARY 1995**

	Number of Plans	Number of Enrollees	Percentage of Enrollees
Risk	175	2,609,919	83%
Cost	30	172,841	5
HCPP	56	360,089	11
SHMOs	3	16,835	1
<b>Total</b>	<b>264</b>	<b>3,159,684</b>	<b>100%</b>

For both political as well as industry reasons, the growth is in risk contracts. Cost-contracted HMOs have been pressured to convert to risk contracts. Those clients that want to start a new plan under one of the cost contract options are being dissuaded. But you are allowed under the law if you want to issue a cost contract.

There are some fundamental differences between them. In a risk contract, the enrollee effectively gives up his or her Medicare fee for service card in exchange for the HMO card. If the individual tries to get a service with a fee-for-service card, it's denied by HCFA. Under a cost contract, and an HCPP program, there's an op-out benefit: they fall back to the Medicare level of benefits.

There's also a difference in premium that the member pays. Risk contract premiums can be zero. Today you can't get much lower. Cost contracts and HCPP contracts have higher premiums. The risk contracts and the cost contracts both offer comprehensive benefits. The HCPP is more of a pick and choose arrangement. It's not really a locked in insurance covered life basis. The benefits package will change and I'll talk about that a little later. HCFA is expected to allow Medicare plans to provide a point-of-service option, which will be a first for them.

Under a risk contract, what the federal government is basically saying to the health plan is the buck stops here. It is your shirt, we'll give you a capitation rate which is 95% of the cost of the fee-for-service equivalent cost. If you come in below estimate, you win. You keep the money. If it gives you a deficit, too bad. This is a current snapshot in time: 83% of the managed care enrollees are in risk contracts and it is growing rapidly.

Between 1991 and 1995, we've seen Medicare HMOs grow to 2 million beneficiaries and 162 health plans with over 3.1 beneficiaries and 264 plans. This is phenomenal growth.

Medicare is having a hard time keeping up with all the contract applications that come in. As of February 1995, there were at least 25 additional contracts pending.

I recently read where Oxford Health Care in New York City, which is a new market for Medicare contracts, is enrolling 3,000 people a month under a Medicare risk contract. Nationwide, enrollment is moving from the fee-for-service sector to the Medicare sectors, using the HMO sector. The HMO sector enrollment is growing 3% a year. The 75,000 members a year are moving into HMOs. Nationwide Medicare HMO penetration is 9%; Southern California reports 35% and Florida reports 16%. The average capitation rate is in the neighborhood of \$400 per month per person for Medicare. That translates into an additional \$360 million per year flowing into managed care organizations, if this growth rate continues.

The retiree market is also growing. The employers and consultants are learning that managed care Medicare programs can significantly reduce those liabilities. Employers are trying to restructure their programs to encourage the retirees to move into HMOs. As that gains momentum, you'll see these numbers skyrocket. Last year's growth in the top line was 26% for 1994-95, and it will go up even higher in the employer market.

Towers-Perrin facilitated the development of a program in Florida that allowed employers to market to their retirees and it's going quite well. It's just the tip of the iceberg. Nationwide penetration for Medicare HMOs is at 9%, meaning 9% of the Medicare beneficiaries are HMOs. There are significant variations. Part of that has to do with the historical distribution and historical adjustment in the geographic factor. Geographic factors tend to reward parts of the country where costs are increasing faster than in others. The industry is working on fixing that problem. Southern California has learned that with very high capitation rates you can see very high HMO concentration rates. There is a wide range in capitation rates. You might see \$600 in a place like Los Angeles and in Portland, Oregon and significant differences as you move around the country. Sometimes simply from one county to the next, you see huge swings that don't make sense.

What does the future hold for HMO products? Well, you have the Medicare program saying: the trust funds won't go bankrupt; all we need to do is put your money into a managed care fund plan. Sometimes you have the same branch of government also saying that Medicare HMOs are going to ruin us. They're going to send the Medicare trust fund down the tubes. It's very quirky in terms of the political environment. The House recently addressed a number of incentives to fix the Medicare program. Many of them will help managed care. For example, they may increase the Part B deductible under the fee-for-service program to encourage people to leave that deductible and move into the Medicare HMO plans. Other options that were talked about in the House were to allow plans to have cash rebates. Once you have zero-premium plans, it's hard to compete except on benefits. And there's only so many benefits you can add to your plan. Many plans want to be able to refund some savings back to the consumer. Lock-ins require the member to lock in on an annual basis. Right now members can change their HMOs almost every month. These are a number of issues that the House is pursuing to encourage Medicare HMO enrollment.

At the other side of the scale are all people who think that Medicare is going to have problems because of HMOs. Some people feel that HMOs make money by denying care. It's like the story of the patient who sits in the waiting room for a long time before seeing

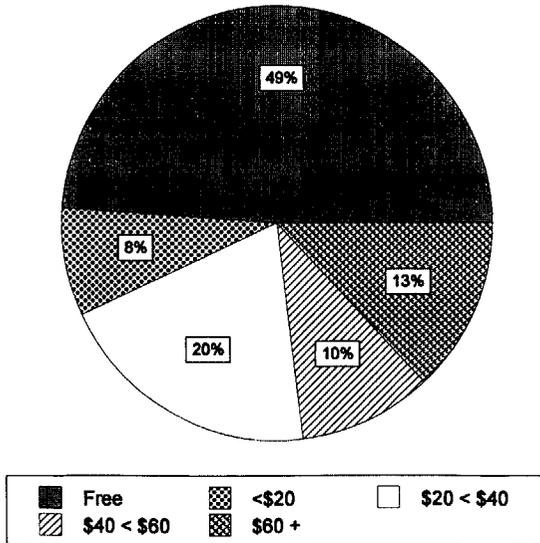
## HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

the physician. When the physician is finally available to see the patient, he says "I'm healed. I'm going home." The patient then walks across the street and collapses from a heart attack. Interestingly enough, there are subtle indicators that the quality of care in Medicare HMOs is equal, if not better, than in fee-for-service programs.

What's the industry perspective? What do the HMOs want? The HMOs see the Medicare program as a significant expansion in their market. It also strengthens provider relationships. Medicare makes up at least 50% of hospital revenues. Hospitals want to protect it. They like to lock in that membership and prevent the patient from going down the road. You see hospitals coming to HMOs, saying, "What do we need to do to get a Medicare HMO going so we can lock in our arrangement and control our own destiny?" Perhaps the federal government would contribute the average of the lowest premium and the beneficiary would have to make up the rest.

We'll talk later about what risk adjustments are currently used. Before you decide you want to enter this market, understand that premiums are big and the claims can be even bigger, and you need to do a basic feasibility analysis. It's hard to get a handle on the expenses if you haven't been doing the business before and plus there is some confusion in the marketplace for the federal filing (Chart 1).

CHART 1  
DISTRIBUTION OF PREMIUMS AS OF FEBRUARY 1995



Note: 95% of plans charge copayments

Let's talk about revenue. You get the capitation rates published by HCFA in its very large rate book. You also have a premium. Remember premium is market driven, like anything else. If your market is the zero-premium market, then basically you will have to offer a zero-premium plan. And you will have to set up a program that is self sustaining based on the revenue that you can charge in the marketplace. At the moment 49% of the Medicare

## RECORD, VOLUME 21

risk plans do not charge member premiums or supplemental premium. That number will probably grow to 65%, 75%, and 80% within the next year or two. At one point in time, someone might call in and say, "You had zero premiums in places like California and Florida." Without restructuring, the weighted premium rates are dropping in places like Cleveland and Philadelphia. Ninety-five percent of the plans do charge copayments. They tend to be comparable to what you see on the commercial side.

Let's move on to capitation rate development and the adjusting average per capita cost (AAPCC). The following is the formula, or at least an implied version of the formula.

Capitation Rate Development:

- $USPCC \times AGA = CPCC$
- $[(CPCC \times \text{all beneficiaries}) - (\text{total cost of HMO enrollees})] \times [1/\text{nonHMO beneficiaries}] = CNHPCC$
- $CNHPCC/\text{average demographic factors} \times 95\% = \text{standardized per capita costs}$
- $\text{Standardized per capita costs} \times \text{demographic factors} = AAPCC$

It helps to have a basic understanding of where the numbers are coming from. In reality, you get a rate focus in September and that's what you have to live with. Knowing where the numbers are coming from and how they develop doesn't really help. You might be able to identify an error that was made, but most of the time you take the rate and run with it. You start with the U.S. per capita cost (USPCC), the geographic adjuster, and you develop a county-specific, non-HMO per capita cost (CNHPCC). You standardize the benefit and geographic factors, take the 5% discount the government wants and then you have the standardized per capita cost. You multiply it back to get your demographic factors to come up with your rate book by rate-adjusted categories.

Regarding, the AAPCC, you take your money that goes out the door and divide by the number of beneficiaries. Part A, by the way, is basically hospital insurance, Part B is medical insurance and professional care. It's a prospective number. HCFA, as of September, when it talks about it and publishes it is trying to project what will happen in the next calendar year. The projection error isn't bad. The goal is to see what direction it is.

Part of the error is because the program changes as the government sets up the next fiscal year budget and tinkers with the Medicare program every year as part of the budget reconciliations. Generally, the HMOs have been immune to some of those last minute changes. Once the rate book is published, it's guaranteed, more or less.

USPCC historically has, and if you view the numbers, probably will average about 8% a year. The growth, as you would expect it, is slowing to about 4% a year. Geographic investment is critical, you can have the USPCC go up 8%, but by the time specific levels are reached, you see the capitation rate drop. Let's talk about determining the average geographic adjustment (AGA). The simple average of five years of this ratio is the country's average dollar claim per beneficiary divided by the national average costs.

These numbers, by the way, aren't necessarily adjusted for HMO penetration. The geographic factors are impacted. In some cases the managed care plans could be punished because they're doing a good job. If you go back to look at the county worksheet that underlies the development of the AAPCC calculation, these are available. You can get a

HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

pretty good handle of where the geographic factors will be going. It applies to where you think the AAPCC will go. Next year, 1993 will be added to the average and 1988 will drop off. The five-year numbers go from 1.96 to 1.88. This increase will probably be less than the increase in the USPCC because the geographic factor will probably go down next year. This is important for planning (Table 2).

TABLE 2  
GEOGRAPHIC ADJUSTMENT FOR PART A—AGED ENROLLEES

Year	Country A Cost/Beneficiary	National Cost Beneficiary	Ratio
1988	\$225	/\$115	= 1.96
1989	230	/117	= 1.96
1990	229	/119	= 1.92
1991	232	/120	= 1.93
1992	234	/124	= 1.88
		Sum of Ratios	9.65
		Divide by 5 Years	9.65/5
		County A AGA	= 1.93

To determine the CPCC, you adjust the USPCC for geographic variation in costs. Take the USPCC and multiply it by your AGA, to get the country with per capita cost (CACC). The following example is just for Part A. Part B is worked by analogy.

$$\$251.61 \times 1.93 = \$485.61 \text{ for Part A aged beneficiaries residing in county A.}$$

There's a formula to calculate the county-specific non-HMO per capita cost (CNHPCC), as the following example shows, where they back out the monies that are paid through the HMOs in the county. As the following example shows, first project the total annual medicare reinvestment in county A. You take the county per capita cost (CPCC), multiply it by the HMO reimbursement, or you come out with an aggregate number of Part A costs to get this. Then subtract the amount of the HMO enrollment that is expected,  $\$58,273,000 - \$20,000,000 = \$38,273,200$  per year. Those would be capitation rates and also, probably there's the  $\$485.61 \times 10,000 \text{ Part A beneficiaries} \times 12 \text{ months} = \$58,273,200$ .

Divide by the number of non-HMO beneficiaries and you come up with a non-HMO beneficiary per member per month, which is 398.68 using our example we see  $\$38,273,200/96,000 \text{ F.F.S. beneficiary months} = 398.68$  per non-HMO beneficiary per month. Every county has a different mix of age and sex. And there are other demographic factors as well. These rates are standardized, so they're called standardized per capita costs. Divide the CNHPCC by your average demographic factor times 95% to get the standardized per capita cost. For example:

$$\frac{\$398.68}{0.93} \times 0.95 = \$407.25$$

Don't assume that the average demographic factor is one for the Medicare population. They're not normalized. They're just relative factors that have been developed over time.

RECORD, VOLUME 21

Warning—the HMO is not capitated at the standardized per capita costs. People pick up the rate book which shows the standardized per capita costs and assume that's what they're getting. They'll be wrong by 10% or 20%. There's one more adjustment. Standardized per capita costs are adjusted for risk. At the moment, there are five factors: (1) age, (2) gender, (3) welfare status, (4) whether they're institutionalized, and (5) whether they're employees and have primary insurance or working waged status.

Table 3 shows what the rate book looks like, when you take the standardized per capita cost, and multiply it by the demographic factor. Table 3 is Part A for hospitals and Table 4 is Part B. There are many rate cells. HMOs have bled red ink because they did not do the math correctly in getting their enrollment into the right rate cell. This is how you get paid by the way, but you can think of it as a fundamental community rate. Their actual enrollment goes into this matrix and comes out with your revenue.

You need to come up with the average payment rate. Take the total payment and divide by the planned enrollment. Another way of saying it is you take your demographics and apply it to this matrix and come up with a weighted average. The following example shows how you determine the average payment rate (APR).

• County A	
Male:	$\$407.25 \times 1.21 \times 800 = \$394,218$
Female:	$\$407.25 \times 0.81 \times 700 = \$230,911$
• County B	
Male:	$\$350.10 \times 1.21 \times 300 = \$127,086$
Female:	$\$350.10 \times 0.81 \times 350 = \underline{\$ 99,253}$
Total Monthly Payment	\$851,468
Enrollment	$\div \underline{2,150}$
APR	\$ 396

When you evaluate plan benefits, you have to at least offer Medicare benefits. Medicare, as you may know, has some pretty heavy deductibles and coinsurance. Those are always covered in a risk contract. Although you can't touch the cheap plan co-payments, but can have inpatient co-payment in lieu of the Medicare co-payment. Then there are additional services that are typically covered. Table 5 shows the number of plans that have these additional services like immunizations and physicals, many plans give away podiatry, and outpatient prescription is a developing issue. If the market isn't doing it, don't do it. You'll get killed. But if the market becomes more competitive, the HMOs are willing to offer added benefits to the individually marketed product. Have a separate product to market to retirees that has a richer benefit package.

**TABLE 3  
CUYAHOGA COUNTY 1995 AAPCC  
PART A—HOSPITAL INSURANCE**

Age Group	Male				Female			
	Institution	Medicaid	NonMedicaid	Working Aged	Institution	Medicaid	NonMedicaid	Working Aged
AGED								
85 & Over	\$717.67	\$780.08	\$405.64	\$265.23	\$639.66	\$624.06	\$358.83	\$234.02
80-84	\$717.67	\$733.27	\$374.44	\$249.62	\$639.66	\$514.85	\$327.63	\$218.42
75-79	\$717.67	\$639.66	\$343.23	\$202.82	\$639.66	\$436.84	\$265.23	\$156.02
70-74	\$717.67	\$499.25	\$265.23	\$156.02	\$561.65	\$343.23	\$218.42	\$124.81
65-69	\$577.26	\$390.04	\$218.42	\$109.21	\$468.05	\$265.23	\$171.62	\$93.61
DISABLED								
60-64	\$169.03	\$521.18	\$281.72	N/A	\$183.12	\$436.67	\$352.15	N/A
55-59	\$239.46	\$422.58	\$225.38	N/A	\$267.63	\$380.32	\$267.63	N/A
45-54	\$309.89	\$366.24	\$183.12	N/A	\$338.06	\$338.06	\$211.29	N/A
35-44	\$380.32	\$323.98	\$183.12	N/A	\$394.41	\$338.06	\$169.03	N/A
UNDER 35	\$507.10	\$323.98	\$183.12	N/A	\$521.18	\$338.06	\$154.95	N/A

**TABLE 4  
CUYAHOGA COUNTY 1995 AAPCC  
PART B—SUPPLEMENTAL INSURANCE**

Age Group	Male				Female			
	Institution	Medicaid	NonMedicaid	Working Aged	Institution	Medicaid	NonMedicaid	Working Aged
AGED								
85 & Over	\$316.72	\$267.99	\$186.78	\$146.18	\$267.99	\$203.03	\$162.42	\$129.94
80-84	\$316.72	\$267.99	\$186.78	\$146.18	\$267.99	\$203.03	\$154.30	\$121.82
75-79	\$316.72	\$259.87	\$178.66	\$129.94	\$267.99	\$203.03	\$154.30	\$113.69
70-74	\$300.48	\$227.39	\$162.42	\$97.45	\$267.99	\$186.78	\$138.06	\$81.21
65-69	\$259.87	\$178.66	\$129.94	\$64.97	\$243.63	\$170.54	\$113.69	\$56.85
DISABLED								
60-64	\$132.35	\$208.98	\$132.35	N/A	\$167.18	\$222.91	\$174.15	N/A
55-59	\$146.29	\$174.15	\$104.49	N/A	\$195.05	\$195.05	\$153.25	N/A
45-54	\$167.18	\$160.22	\$83.59	N/A	\$222.91	\$167.18	\$132.35	N/A
35-44	\$202.01	\$153.25	\$76.63	N/A	\$250.78	\$160.22	\$118.42	N/A
UNDER 35	\$236.84	\$153.25	\$62.69	N/A	\$271.67	\$146.29	\$104.49	N/A

TABLE 5  
 PERCENTAGE OF HMOS ADDING BENEFITS AS OF FEBRUARY 1995

Physicals	96%	Podiatry	35%
Eye Exams	89%	Dental	34%
Immunizations	86%	Health Education	25%
Ear Exams	74%	Lenses	6%
Outpatient Rx	47%	Hearing Aids	4%

Let's consider the topic of expenses. Your HMO has to have operating experience before it can even get a Medicare contract, so you can start looking at your commercial experience. If you're not managing commercial experience very tightly, you may not be into the Medicare business very tightly. You can apply demographic factors to your commercial experience and say that office visits are used three times as much by the Medicare population. There's a whole series of factors that you can use. They tend to be rough. The factors are published by HCFA, or you can come up with your own factors. If your HMO has a Medigap plan, benefit supplement plan, or it's related to an insured that has a Medicare supplement plan, there is data that can be used, especially on the Part B medical side. It's public data sources. Are you going to capitate providers? Are you going to take rates below Medicare's rates? As I said earlier, sometimes you have a provider banging at the door of an HMO to be part of the network.

You also need to look at your utilization and quality management benefits. Whatever you pay your provider is not just a payment mechanism. It has to manage the care. It's not business as usual, just like it's not business as usual with the Medicaid program. Successful plans have developed the secrets for early identification of the frail and elderly. They can be case managed proactively before they land in the hospital. Case managers generally start out as a medical director, a medical consultant, or a nurse practitioner who reviews cases and looks at the issues of chronic care that is needed by this population. For individual case management, you'll see expenses go up and more frequent member communications become more frequent. These people are not doing managed care. They need to be educated to take part in the Medicare HMO program. They would have a direct impact on the cost of care.

You can also generate significant savings through self-care programs. When you're communicating with the members through newsletters, for example, you can educate them on many self-care issues. You can beef up your home care budget and have nurses come out and provide training, to make sure that the diabetic is taking his or her insulin, for example. An illustrious example of an expense development is not too different from the way we might see your commercial HMO, the utilization rate, the cost per service and per member per month amount, reduced for co-payments (Table 6).

Let's go on to facilities. Inpatient care in an unmanaged environment for Medicare probably runs close to 3,000 days per thousand. In California last year, the first HMO was able to come in below 1,000—it was about 900 days per thousand. There was quite a lot of potential in that market. Three or four years ago, a mature Medicare HMO plan was a curious thing—it was 2,700 days per thousand. When we were doing a rating, the Medicare director was guessing about 23. You're saying, "prove it." We argued about it and came up with a rate. I recently learned that they are now at 1,700 days per thousand. There's huge reductions that can be made for this population.

TABLE 6  
 MEDICARE HMO  
 DEVELOPMENT OF PER MEMBER PER MONTH PREMIUM RATE

	Utilization per 1,000	Adjusted \$/Unit	Gross PMPM	Copay Utilization per 1,000	Copay \$/Unit	Copay PMPM	Net PMPM
Professional							
PCP Capitation			\$19.12	5,500	\$10	\$4.58	\$14.54
Physician FFS	4,190	\$96	\$33.48				\$33.48
Lab. Capitation			\$2.64				\$2.64
Radiology	1,618	\$54	\$7.32				\$7.32
Other Diagnostics	299	\$94	\$2.35				\$2.35
Subtotal			\$64.91				\$60.33
Facility & Other							
Inpatient	1,950	\$1,154	\$187.51				\$187.51
Emergency Room	221	\$231	\$4.25	146	\$25.00	\$0.30	\$3.95
Other Outpatient	4,546	\$119	\$44.96				\$44.96
HHC/SNF/Hospice	270	\$472	\$10.64				\$10.64
Subtotal			\$247.36				\$246.06
Facility Subtotal							\$246.06
Professional Subtotal							\$60.33
Health Care Costs							\$307.39
Administration							\$23.14
Revenue Requirement							\$330.53

When you're talking about the magnitude of numbers, an inpatient number of \$187 per member per month, see where your statements accrue.

Notice administration is your bottom line. Administration promotes commercial HMOs by \$10, maybe \$15. You've got some big numbers here to work with and the administrative costs are not proportional to the claims costs. Your administrative budget goes down as a percentage of premium. On the other hand, if your profit objective is 1% of premium or 5% of premium, you get much more profit.

There's a third part in the feasibility study. And as I said before, you have revenue and expenses. Some people call these adjusted community rate (ACR) proposal. This is required by the federal government. It's supposed to be the HMO's estimate of the cost of providing Medicare-covered services. However, what it really is, is the HMO's estimated premium for Medicare-covered services. What ACR does in a sense is take the commercial premium and adjust it forward. The end result is not cost numbers; it's premium numbers. And that nuance is very critical. You do not make any money on your commercial HMO; this thing will not prove to be feasible. On the other hand, if you are making a lot of money on your HMO, you're already underwriting a gain. You'll apply these factors and it may look like you're having a loss when you project it as premium, not expenses. This is complex issue that hopefully becomes clearer a little bit later.

The first step is to develop a base rate (commercial premium) minus the benefits adjustment which equals the initial rate. You may get to it through the Medicare covered services. So if you provide unlimited skilled nursing facility days, you have to make a negative adjustment down to 100 skilled nursing facility days. If you provide an unlimited mental health benefit, you need to map some Medicare mental health benefits. So actually it's the other way around. Medicare's benefit is richer than most commercial mental health plans.

Come up with an initial rate that represents Medicare covered services for the commercial populations, that mid-point along the way. Then you multiply the initial rate by the volume of services rendered to the Medicare population, and the complexity of those services. Subtract the actuarial value of Medicare deductibles and co-payments, roughly \$57 per month of your ACR. This is just for Medicare covered service, I guess before its residual service.

The federal government may confuse the difference between the average payment rate (APR), the average of the AAPCC, and the adjusted community rate, or adjusted commercial premium (ACP). The difference must be returned to the beneficiaries. Either reduce the value of Medicare's deductibles and co-payment, or reduce the premiums of the supplemental benefits, or both. It's the savings between the ACR and APR that are used to pay for prescription drugs, eyeglasses, physicals and so forth that you see on Medicare risk HMOs. I neglected to mention this is a prospective calculation. You do it in November and its due November 15 for the following year. This settlement is your savings, if your actual costs are greater or less than what you submit on your ACR, its yours. There's not a reconciliation. It's not a cost-based calculation.

HEALTH MAINTENANCE ORGANIZATION (HMO) ISSUES (HOT TOPICS)

Table 7 is a good look by example of an ACR proposal. You have your base rates and your commercial premium of \$100 per member per month starting at the bottom of the first column and working up. You then allocate that back on a growth basis, from two different lines of coverage. You reduce that or you make your adjustments, excuse me, for your benefits, get it from Medicare development services. Prescription drugs can be taken off. By and large, Medicare does not cover prescription drugs, so it comes out at this point in the calculation.

TABLE 7  
ACR PROPOSAL

Service	Base Rate	Benefits Adjustment	Initial Rate	Volume and Complexity	ACR
Inpatient	\$28.00	(\$0.20)	\$27.80	5.5000	\$152.90
Outpatient	\$11.96		\$11.96	4.5000	\$ 53.82
Physician	\$40.26	(\$3.50)	\$36.76	3.5000	\$128.66
Diagnostic	\$7.55		\$7.55	4.2000	\$ 31.71
Prescriptions	\$5.00	(\$5.00)	\$0.00		\$ .00
Subtotal	\$92.77	(\$8.70)	\$84.07		\$367.09
Administration	\$16.47	(\$1.53)	\$14.84		\$ 64.78
Subtotal	\$109.14		\$98.91		\$431.87
COB	(\$2.14)		(\$2.14)		(\$2.16)
Revenue Req.	\$107.00		\$96.77		\$429.71
Copayments	(\$7.00)				
Comm. Premium	\$100.00				
Medicare Deduct/Coin					(\$66.03)
Total ACR					\$363.68
APR					\$396.03
Savings					\$ 32.35
Additional Benefits	\$4.50	\$0.00	\$4.50	3.000	\$ 13.50
Medicare Deduct/Coin					\$ 66.03
Savings					(\$32.35)
Copayments	(\$5.00)	\$0.00	(\$5.00)	3.500	(\$17.50)
Max. Mon. Prem.					\$29.68

So your initial rate is \$96.77, a theoretical number. In theory if you took your commercial benefit, your commercial HMO and offered Medicare's package, (you never want to do this) your premium would be \$96.77. I mentioned the volume complexity factors before. These again, are ballpark numbers. You multiply the amount, add them up, subtract what you expect for Medicare deductible and co-insurance and you come up with your adjusted community rate of 363.68. The average payment rate in our example of 396.03, shows a savings of 32.35 that needs to be returned to the beneficiary's or options I mentioned earlier. And those options are likely to change under the House proposal I mentioned before. They may include a reduction in the Part B premium that the member pays through his or her social security check. This is another \$50 savings that can be passed on to the consumer.

I've had people point to the total ACR number and the total APR number, the relationship was reversed, and say that there's a deficit. We're losing money but that can't be, because everybody else in the market is making money. Again, these are not costs. This is premium. Cost is built in above the line. It's whatever profit you're making on your commercial group. Furthermore, for your administrative line, you have 14.84 as your initial rate. That becomes 64.78 under your ACR. It goes up as a percentage and I said before, your administrative costs don't go up proportionately to your health care costs. So

there's profit in that line, as well. You need to know what you're looking at in this calculation.

I mentioned additional benefits. Four dollars and fifty cents can be prescription drugs and if you apply factor-adjusted community rate, this plan is covering all Medicare deductibles and co-insurance. There was \$32.35 in savings. The plan is going to collect \$17.50 from each member as co-payment. The maximum monthly premium according to this calculation is \$29.68. They are not required to collect the maximum monthly premium, but once you give it up, you can't chalk it up as a loss. You have to justify to the federal government that you will not go bankrupt because you're waiving premium.

The Medicare program is a complex program that requires different kinds of case management and different kinds of actuarial technique. On the other hand though, it represents a huge market potential for the HMO and when done right, can be profitable. The other thing that you need to keep in mind as you move ahead, is that the market will change, probably within 12-18 months. Medicare will probably open up the different kinds of entities that can be capitated. They may allow employers to receive the AAPCC for their retirees, instead of doing a recurrent. They may allow physician hospital organization (PHOs), other groups of providers to contract directly through some or all types of service on a risk basis.

There is an opportunity now to enter the market and gain a foothold in gains for expertise before the competition gets intense. So intense, in fact, that it becomes a bidding war for these members and you don't have any margin for error. Collect the rate book today and learn from it; that way you'll be able to come up with a smarter bid tomorrow.