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AN OVERVIEW OF HEALTH ISSUES AND RECENT DEVELOPMENTS FOR THE NON-HEALTH ACTUARY

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Topics include:

- Expected trends in medical care costs: the underwriting cycle, cost shifting, recent utilization declines
- Changes in Medicare reimbursement practices and their short- and long-term effects
- The emerging responsibility for providing long-term care
- Rise of managed health care: Preferred Provider Organizations, Health Maintenance Organizations, utilization review programs
- New and old participants: What are the roles of insurers, hospitals, physicians, employers and others?
- Selection issues, multiple options, small group market

MS. PHYLLIS A. DORAN: On our panel, Roland (Guy) King is Chief Actuary with the Health Care Financing Administration. He has been there since 1979. Charlie Larimer is currently an Actuary at Blue Cross and Blue Shield of Illinois; he'll soon be joining Bob Gold and Associates. Joseph Moran is Vice President and Actuary with New York Life. He's been in the group business for 35 years. He is currently Chairman of the R and D Committee of the HIAA.

Our session today is going to be addressed, as the title implies, to the non-health actuary. As an actuary practicing in the health field, I have

sometimes found it difficult to keep up in other areas. I sometimes find myself listening to discussions among pension actuaries in which they use terms and Internal Revenue Code numbers that leave me wondering if we're in the same profession. Of course, I do not feel that I can ask questions, because I'm not sure which terms are those that I was supposed to have understood at one time, in order to pass all of those exams -- so I just tend to remain ignorant.

What is now happening in the health field is that all of a sudden we've got all sorts of acronyms: PPOs, ACRs, AAPCCs; these may represent new terminology that you are not familiar with. If we believe what Dallas Salisbury, the luncheon speaker at the Business Session and Luncheon, had to say, it could be that health actuaries will find ourselves becoming more fluent in Internal Revenue Code in the future, also.

Our purpose today is to help the audience understand what the major issues are in the health field and, if necessary, explain what some of the basic terms are. But more importantly, we want to explain the environment we're working in and what some of the major issues are, with an emphasis on the point of view of someone who is working in the employee benefits field and needs to understand the big picture in health insurance.

Things are changing rapidly. I would characterize today's health care environment as one of great change. In the early years of health insurance there was an emphasis on providing the best possible benefits. That emphasis shifted to one of worrying about the cost of those benefits in the late 1970s.

Our first topic will be expected trends in medical care costs.

MR. ROLAND E. (GUY) KING: There is a revolution going on in the health care delivery system. It's having the effect of reducing the inflation of health care cost. You may have noticed it yourself in the premiums that you paid for health care. It is something of a quiet revolution. There's no evidence of it in the streets, but if you look in the newspaper you may see evidence of it; in my area, advertisements in the *Washington Post* for new forms of health care delivery, HMOs, competing for enrollees, are evidence of it. We will be describing that revolution today.

One of the opening salvos in the revolution is the changing incentives of the Medicare hospital reimbursement system. You may not know that the incentives have changed rather dramatically. Basically, under the old cost-based reimbursement system that was in effect before 1983, higher expenses produced higher revenues for a hospital. Thus there was a natural incentive for hospitals to increase their expenses. This has changed under the new Prospective Payment System (PPS) which is currently being phased in. The initial start-up date of the system was October of 1983, so we first saw experience data on PPS in 1984-1985. Under Prospective Payment, Medicare offers to the hospital a fixed payment per admission. This offers a drastically different incentive from what we saw in the old cost-based reimbursement system. Lower expenses produce higher profits, so there is an incentive for hospitals to reduce expenses. Let's consider some of the historical increases in inflation measures (Table 1). The Medical care component of the CPI, (MCPI) and the hospital component of the CPI are consistently higher than the overall level of inflation. In recent years there has been no evidence that that gap has been narrowing. The medical care MCPI runs about one and a half times the CPI, and the hospital component CPI runs even higher than that. Even though the gap is narrowing because inflation overall is coming down, there certainly is no evidence here of any revolution going on.

TABLE 1

HISTORICAL INCREASES IN INFLATION MEASURES

Year	*CPI*	*MCPI*	*Hospital CPI*
1975	7.0%	9.9%	NA
1976	4.8	10.1	NA
1977	6.8	8.8	NA
1978	9.0	8.8	11.3%
1979	13.3	10.1	11.2
1980	12.4	10.0	14.5
1981	8.9	12.5	14.8
1982	3.9	11.0	12.6
1983	3.8	6.4	10.4
1984	4.0	6.1	7.6
1985	3.8%	6.7%	5.0%

Now let's take a look at some of the increased trends in various hospital statistics (Table 2).

TABLE 2

INCREASE TRENDS IN VARIOUS HOSPITAL STATISTICS

1970-1984

	Admissions			*Length of Stay*		*Expenses*	
	65+	*-65*	*All*	*65+*	*-65*	*Total*	*Adjusted Per Admission*
1970	2.6%	7.2%	6.3%	- 3.1%	- 1.5%	17.5%	10.3%
1971	3.4	- 0.3	0.4	- 3.2	- 3.0	11.0	10.1
1972	6.1	1.6	2.6	- 4.1	0.0	12.1	8.8
1973	5.7	2.9	3.5	- 2.6	- 1.6	12.0	7.5
1974	6.0	3.0	3.7	- 0.9	- 1.6	16.0	11.4
1975	4.5	- 1.0	0.3	- 0.9	0.0	17.5	16.5
1976	7.0	2.2	3.4	- 1.8	0.0	19.1	14.8
1977	4.4	1.9	2.5	- 2.7	- 1.6	15.6	12.3
1978	4.9	- 1.0	0.4	- 0.9	- 1.6	12.8	11.8
1979	5.3	1.7	2.7	- 1.9	- 1.7	13.4	10.4
1980	6.7	1.5	2.9	0.0	0.0	17.0	15.5
1981	3.0	0.0	0.9	0.0	0.0	18.7	17.4
1982	4.1	- 1.6	0.0	- 2.9	0.0	15.8	15.5
1983	4.7	- 2.8	- 0.5	- 4.0	- 1.7	10.2	10.2
1984	- 2.9	- 4.5	- 4.0	- 7.6	- 3.6	4.6	7.5
1985	- 5.2	- 4.7	- 4.9	- 1.1	- 1.8	6.4	9.5

One of the things that you want to notice in Table 2 is that the decline in the non-Medicare admissions actually began several years before the decline in Medicare admissions. This means that the private payors were putting pressure on doctors and hospitals, finding ways to reduce admissions before Prospective

Payment ever went into effect. The decline in Medicare admissions actually began in 1984, which was the beginning of PPS. Length of stay has been declining here for as long as our data go back. As you would expect under a reimbursement system that reimburses on a per-admission basis, the length of stay for Medicare patients began dropping precipitously in 1984, the beginning of PPS.

The most eye-catching drop has occurred in expenses. Prior to the beginning of 1984, expenses had been increasing in double digit figures. If I took Table 2 back even further you'd see the same thing. Not only were expense increases in double digits, but they were increasing between 15 and 20% a year on the average, with only occasional drops below that level. However, they dropped to single digits for the first year of Prospective Payment and stayed there. In fact, not only did expense increases drop to single digits, but in 1984 they were under five percent, and they were not much higher than that in 1985.

The figures I've presented thus far suggest that the decline in expenses has been mainly in volume of services that are occurring and not in prices. Table 3 shows the most surprising trend of all.

TABLE 3

TOTAL MARGIN OF COMMUNITY HOSPITALS BY REGION

FISCAL YEARS 1983-85

Net Revenue as a Percent of Total Revenue

Region	*Fiscal Year* *1983*	*1984*	*1985*
U.S. Total	5.3%	5.7%	6.3%
New England	3.0	4.1	5.5
Middle Atlantic	1.0	1.2	2.6
South Atlantic	6.4	7.3	7.5
East North Central	5.2	5.5	6.3
East South Central	6.7	7.0	8.2
West North Central	5.2	5.6	6.0
West South Central	8.3	8.1	7.5
Mountain	7.0	5.0	6.2
Pacific	7.0	8.3	8.2

Despite large drops in volume, despite the reductions in Medicare payments or reductions in the increase in Medicare payments, and despite occupancy rates that are below 66%, the hospital industry has prospered under the new system. I might point out that these revenue margins for the hospital industry as a whole are among the largest for any industry. One interesting aspect of this is that the revenue margins in the Middle-Atlantic states are among the smallest in the hospital industry. I don't know if there is a relationship here, but it just so happens that there's only one state in the Middle Atlantic region that doesn't have a waiver from the Medicare Prospective Payment System, and that's Pennsylvania. Thus, one might conclude that hospitals are actually doing better with the Medicare Prospective Payment System than they're doing under the old state regulatory systems.

Of course, one of the things that we're always concerned about, when Medicare is acting to reduce the increase in cost for the government, is cost shifting. Table 4 shows the HIAA cost shift methodology for 1984. I believe the figures have been revised since this methodology was developed. We see in Table 4 the development of an estimate of $8.8 billion in cost shifting for 1984. The thing I want you to notice about Table 4 is, first of all, that public sector gross charges are estimated from Medicare cost-to-charge ratios that are obtained directly from the Medicare program. The Medicare cost-to-charge ratio is about 74%, and that's really the basis of the HIAA cost shift methodology. Another thing to notice is that the assumption here is that charges are a valid measure of resources used in patient treatment; the HIAA uses charges to allocate costs between the private sector and the public sector. Another assumption is that hospitals' net revenues approximate their costs. That net revenue figure of $127.656 billion has to be anchored to something. The HIAA assumes that the $127.656 billion reflects costs, and that higher revenues from a payor reflect higher costs. If this were not the case, then if Medicare paid an additional $8.8 billion to the hospital industry, the hospital industry would just receive an additional $8.8 billion in reimbursement, and there wouldn't be any benefit at all to the private sector. Also, the HIAA didn't conduct a study to determine if cost shifting took place, but merely assumed that cost shifting took place and then developed its figures from that assumption.

TABLE 4

HIAA COST SHIFT METHODOLOGY

			(Billions)
A.	Net Patient Revenue		$127.656
	A1. Public Sector Payments	$64.696	
	A2. Private Sector Payments	$62.960	
B.	Gross Patient Charges		$151.134
	B1. Public Sector (Medicare/Medicaid) Charges	$87.000	
	B2. Private Sector Charges	$64.134	
C.	Public and Private Sector Payments if Both Were Determined on the Same Basis		
	1. Public: B1/B x A		$ 73.485
	2. Private: B2/B x A		$ 54.171
D.	Conclusion		
	Public Sector Underpayment		$ 8.789 (C1-A1)
	Private Sector Overpayment		$ 8.789 (A2-C2)

There are some data available that are inconsistent with cost shifting. First of all, we notice that from 1970 to 1984 the Medicare share of hospital expenses grew at a greater annual rate than the Medicare share of in-patient days. This is the period during which the HIAA said that cost shifting was increasing. There is evidence also that Medicare subsidizes other payors. For example, in delivery rooms, costs exceed charges by over 25%. The delivery room is, of course, an area where Medicare has very few beneficiaries, so one suspects that profits on Medicare patients in other parts of the hospital are supporting the deficit in delivery rooms. In addition, independent academic studies have concluded that cost shifting doesn't take place. The most recent one was partially funded by grants from Metropolitan, Equitable and John Hancock. It was done by the Center for Health Policy Studies at Georgetown University School of Medicine, and it concluded that "hospitals do not increase

their markups from privately insured patients when revenues are squeezed. Instead they reduce personnel, postpone pay increases and limit charity care."

Finally, let's consider the HIAA's assumption that gross charges are a valid measure of the resources used in treating patients. Consider the example in Table 5. We have a revenue center or a cost center in a hospital and the ancillary cost center. The thing you want to notice in Table 5 is that the costs of both service number one and service number two, in this example, are the same; however, Medicare beneficiaries consume a much larger amount of service number one, and the hospital charges more for service number one than for service number two. We have evidence that this is something that is actually done. For example, 90% of cataract surgery is performed on Medicare patients, and oftentimes hospitals will charge triple or quadruple what they actually have to pay for an intraocular lens in order to allocate their costs to Medicare. Now, in the example in Table 5, the way Medicare allocates costs, the Medicare reimbursement would be $1,760,000, while the non-Medicare net revenue would be $800,000 on the basis of just multiplying the number of services times the charge for service. The Medicare gross revenue would be $2,200,000, which is what Medicare would pay if it paid gross charges. The Medicare cost-to-charge ratio is 80%: that's the $1,760,000 divided by the $2.2 million. And of course, the ratio of net to gross revenue for the private sector is one. The ratio of total net revenue to total gross revenue is 85%. Based on this, Medicare's fair share of payment is $1.6 million, which one would get by allocating the expenses on the basis of equal charges for both services instead of different charges for both services.

Looking at the figures in Table 5, I would think that what is actually going on is that the hospital industry initially cost-shifted -- shifted as much of its cost as it could onto the Medicare program. Over the years, as Medicare became aware of this, the cost shifting ceased, and what the private health insurers have perceived as cost shifting has really been a shift away from cost-shifting onto Medicare towards a more equitable allocation of costs. That's still important for trends, because if this phenomenon continues, then private insurers are going to see their trends increasing faster than trends in Medicare payments.

TABLE 5

Illustration

Ancillary Cost Center

	Service #1	Service #2	Total
Total Services	150,000	150,000	300,000
Medicare Services	120,000	80,000	200,000
Charge Per Service	$ 15.00	$ 5.00	$ 10.00
Actual Cost Per Service	$ 8.00	$ 8.00	$ 8.00

- Medicare Reimbursable Costs:

$$\frac{120{,}000 \times \$15.00 + 80{,}000 \times \$5.00}{150{,}000 \times \$15.00 + 150{,}000 \times \$5.00} \times \$8.00 \times 300{,}000 = \$1{,}760{,}000$$

- Non-Medicare Net Revenue:

$$(150{,}000 - 120{,}000) \times \$15.00 + (150{,}000 - 80{,}000) \times \$5.00 = \$800{,}000$$

- Medicare Gross Revenue:

$$120{,}000 \times \$15.00 + 80{,}000 \times \$5.00 = \$2{,}200{,}000$$

- Medicare Cost/Charge Ratio = $\frac{\$1{,}760{,}000}{\$2{,}200{,}000} = .80$

- $\frac{\text{Non-Medicare Net Revenue}}{\text{Non-Medicare Gross Revenue}} = \frac{\$800{,}000}{\$800{,}000} = 1.00$

- $\frac{\text{Total Net Revenue}}{\text{Total Gross Revenue}} = \frac{\$1{,}760{,}000 + 800{,}000}{150{,}000 \times \$15.00 + 150{,}000 \times \$5.00} = .85$

- Medicare "Fair Share" Payment:

$$\frac{120{,}000 + 80{,}000}{150{,}000 + 150{,}000} \times (150{,}000 + 150{,}000) \times \$8.00 = \$1{,}600{,}000$$

Finally, looking at the total margin of community hospitals, we see once again that during this period of cost-shifting, revenue margins for hospitals have grown every year since 1974 (Table 6). It's hardly the picture of an industry which is being forced to cost shift from Medicare to other programs. Once again, this suggests that cost shifting doesn't exist.

TABLE 6

TABLE MARGIN OF COMMUNITY HOSPITALS

CALENDAR YEARS 1974-1984

Year	*Total Revenue*	*Total Expenses*	*Net Total Revenue* *Amount*	*Percent of Expenses*
1984	$134,331,178	$126,027,583	$8,303,595	6.6%
1983	126,728,291	120,219,622	6,508,669	5.4
1982	114,954,728	109,091,340	5,863,388	5.4
1981	98,812,788	94,187,000	4,625,788	4.9
1980	83,122,087	79,339,633	3,782,454	4.8
1979	70,599,829	67,832,712	2,767,117	4.1
1978	62,011,648	59,802,346	2,209,302	3.7
1977	54,992,929	53,006,115	1,986,814	3.7
1976	47,324,028	45,842,045	1,481,983	3.2
1975	39,400,855	38,492,033	908,822	2.4
1974	33,460,394	32,759,261	701,133	2.1

MR. CHARLES F. LARIMER: Long term care is one of the quickly growing areas of interest both in the Blue Cross system and with other carriers. A quick definition of long term care is those services which address the ongoing health, personal care, and social needs of individuals who have lost some capacity for self-care. A more detailed definition includes skilled nursing care, intermediate care, home health care, and social support services. These can be offered and given by a variety of practitioners including doctors, nurses, therapists, and others. Thus, long term care is a very broad area.

As we are all aware, the population of the United States is an aging population (Table 7). There are currently about 27 million people over the age of 65,

representing about 12% of the U.S. population. It is the older segments of this over-65 group that are really using long term care. Only about 1% of people aged 65 to 74 will have a need for long term care service. At 75 to 84, about 7% will have a need for a long term care facility, and over age 85, the figure goes up to 23%.

TABLE 7
DEMOGRAPHICS

Elderly Are a Large and Growing Market

- o 27 million people over age 65 in 1985
- o 12% of the U.S. population
- o Population segment growing twice as fast as nation as a whole
- o Projected 32 million over 65 by year 2000
- o "Older elderly" (75+) -- needing most LTC services -- increasing most rapidly

One of the things that a lot of people are now beginning to realize is that a lot of these older people have a substantial amount of income (Table 8). Roughly 25% of the heads of households have income of over $15,000 per year. The historic view of the elderly being massed in poverty is proving untrue in many situations. Therefore, there's a great market potential for long term care products, so now it's a matter of people's figuring out what the need is, and then going after the market.

TABLE 8
DEMOGRAPHICS

Elderly Have Substantial Purchasing Power

- o Improved pensions and retirement programs have produced dramatic gains in elderly income
- o Median income increasing at greater rate than the general population
- o 25% of elderly headed households have incomes over $15,000

This goes beyond just insurance needs. In 1984 the total long term care expenditures were about $35 billion. Most of this was spent on institutional

care (Table 9). Roughly half of this consisted of out-of-pocket costs. The federal government is picking up about 23% and the state government, about 20%. Medicare pays only about 2%. People frequently think that Medicare is picking up the lion's share of long term care, but this is clearly not the case.

The cost of the nursing home care is roughly $500 to $3,000 per month. You can see that it would not take very long for an elderly person with limited savings to exhaust his or her savings. In general, there are two types of people who go into nursing homes: those who get out and those who don't get out. Those who do get out generally get out after about six months. Frequently these people go into the nursing home for six months and totally drain their resources; by the time they get out, they've lost their homes and their savings, which is naturally a very traumatic thing for them. On the other hand, those who stay in nursing homes much beyond six months are frequently there for the rest of their lives.

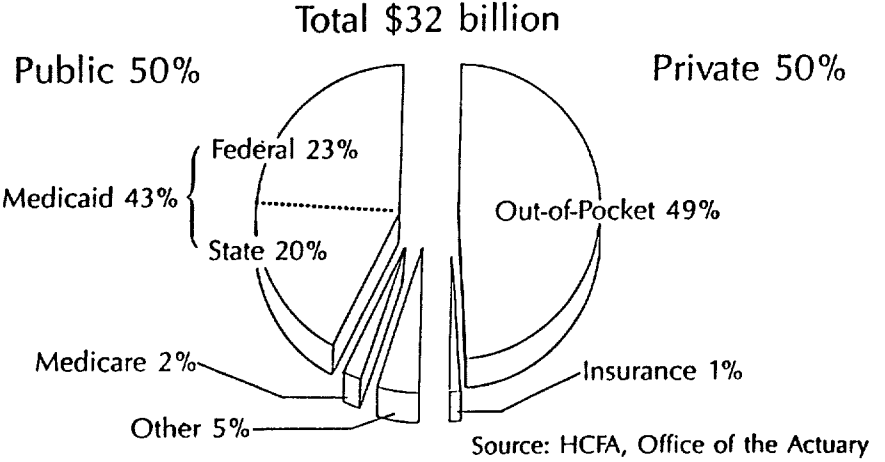
This has interesting implications for long term care insurance product design. Maybe people only need a product that would last for six months or a year, because beyond that they would probably be institutionalized for life and wouldn't really have the need to protect their houses and other resources.

That some type of insurance is needed seems clear. A lot of long term care is still provided directly by families, but the increasing mobility of grown children away from the areas where their parents live, as well as the financial and emotional burden of care for an elderly person, may make such direct care by families less frequent in the future.

I would now like to turn to legislation and regulation. The government is hoping to open up the market for a long term care insurance product, in order to ease its own burden. About half of the payments to long term care come from Medicaid, and of course the government is always looking for ways to shift this cost from the government back to the people, which I think in this case makes some sense. There are bills being considered now which would help more clearly define long term care benefits. These regulations would be similar to Medicare Supplement Minimum Benefit Regulations.

Need

- Sources of payment for nursing home care (1984)



Source: HCFA, Office of the Actuary

There is also some work to be done in Individual Retirement Medical Accounts. These are similar in some respects to IRAs; the concept is to get some tax benefits to people who are setting aside money for their retirement care. Some of the state legislatures are also getting involved, generally in the design of mandated coverage and mandated minimum standards. In addition, the NAIC task force is examining the whole issue.

Let's talk a little bit about competition. Fireman's Fund has been in the market for about 10 years and has roughly 20,000 contracts. There's the Chicago-based United Equitable, which has roughly 65,000 contracts. Many carriers are either considering entering the market or have already done so. Roughly 25 or 30 commercial carriers are offering long term care products, and a lot of the Blues are planning to make their move into this area.

Table 10 shows a typical long term care product. It's an individual indemnity product, generally running from one to four years. The benefit is generally a payment of $30 to $60 a day for skilled nursing facility (SNF) care. There are variations in terms of whether intermediate and custodial care are covered. Frequently home health care is excluded or very limited; mental and nervous conditions are often excluded or limited; sometimes there's a prior hospitalization requirement. Usually there will be some medical underwriting used with these products. Generally there is a level premium structure. The product is frequently sold through agents and brokers with a very high commission schedule, frequently 75% first year commission. Public awareness of this product is increasing.

TABLE 10
COMPETITION

"Typical" LTC Product

- Individual indemnity policy
- Skilled nursing facility (SNF) coverage for 1-4 years
- Daily SNF payments $30-60
- Intermediate and custodial nursing home care extremely limited or not covered
- Home car excluded or very limited reimbursement

AN OVERVIEW OF HEALTH ISSUES

MR. JOSEPH W. MORAN: Major changes are now taking place in the nation's health care delivery system -- and in the mechanisms used by government, employers and the public to finance the costs of health care.

Over the past several decades, employers' health benefit plans generally have been oriented to the traditional fee-for-service health care delivery system -- in which the consumer has a free choice of providers.

In this environment, the role of the employer or his group insurer has been "passive" -- as a supplier of dollars to help pay for the health care services selected by the consumer and his physician -- *without* getting involved in that selection.

The health care segment of the nation's economy has expanded dramatically in recent years. Health care now costs the nation over $400 billion per year -- over 10% of gross national product. In 1965, our health care costs were only $42 billion -- only about 6% of gross national product. Over the past 20 years, health care costs have grown at the rate of over 12% per year.

Some of this increase in the nation's health care bill is the result of population growth -- and some is the result of advances in medical science and technology -- but the largest single factor has been the increase in the amount of money made available to pay for health care:

- by Federal and State governments, through the Medicare and Medicaid programs; and
- by employers, though group insurance and Blue Cross and other employee benefit programs

As health care costs have become an ever-larger burden on the nation's economy, "cost containment" has become the watchword in health care planning by government, employers, the medical profession and others in the health care industry.

The focus of recent cost containment efforts has been to supplant traditional arrangements for delivery and financing of health care services with "managed health care" programs.

PANEL DISCUSSION

In this new managed health care environment, the key role for an insurer is to be an "activist" supplier of the services needed by employers to *manage* their benefit plans to obtain better value per dollar spent.

The concept of managed health care embraces a wide variety of new health care arrangements, including 3 which are viewed as keys to successful performance:

- UR (Utilization Review) programs, designed to enhance the cost-effectiveness of employee benefit plans by reducing the availability of benefits to pay for unneeded or over-extended hospital confinements, redundant diagnostic testing, etc.;

- PPOs (Preferred Provider Organizations), which offer consumers an option to obtain health care services within the traditional fee-for-service delivery system at lower cost (to themselves and their employers), by using designated physicians and other providers; and

- HMOs (Health Maintenance Organizations), which assume combined responsibilities for both delivery and financing of health care services to their enrolled members.

Today, most insurers' group marketing strategies are focused on creating and marketing "triple-option" programs in which the employee can choose among:

- traditional major medical coverage (with new Utilization Review provisions)

- major medical coverage with Preferred Provider features

- HMO coverage

They see the triple-option approach as the best way to enhance the "value added" by the insurer when an employer relies on it for the coverages and services that will make his employee benefit program an effective managed health care plan.

Utilization Review (UR)

In its management of the Medicare program, the Federal government has used PROs (Peer Review Organizations) to monitor the practices of physicians, hospitals and other providers in supplying the services paid for under Medicare -- both as to utilization and as to quality of care.

Utilization Review agencies, which specialize in providing similar monitoring services to insurers and employers with respect to claims under their benefit plans, are an outgrowth of these PRO activities.

These independent UR agencies, relying primarily on trained nurses and data banks of statistics on practice patterns, enhance the administration of health benefit claims:

- by determining which hospital confinements (and how many days of confinement) are medically necessary for each specific patient; and

- by encouraging patients and physicians to use alternative less expensive treatment patterns.

Adding policy provisions that require the patient to comply with pre-admission utilization review procedures in order to qualify for full benefits is one device that insurers are now adopting as a cost containment measure on their traditional group health insurance plans.

Preferred Provider Arrangements (PPOs)

In 1983, insurers began marketing group policies in California which contain "Preferred Provider" coverage. Under these plans, the insured employee retains a free choice of physicians -- but he has an incentive (his out-of-pocket costs will be lower) to obtain health care services from those doctors and hospitals listed as Preferred Providers for his plan.

A physician can qualify as a Preferred Provider by:

- meeting certain credentials requirements; and

- agreeing to observe certain utilization standards; and

- agreeing to accept fees on a prescribed scale (usually below his usual charges) as full payment for his services.

By becoming a Preferred Provider, the physician hopes to be able to acquire additional patients among those employees who would face higher out-of-pocket costs if they obtained services from other providers.

In most PPOs, the main feature is that Preferred Providers (both physicians and hospitals) agree to charge prices to PPO patients below their normal level. These price savings justify some liberalization in deductible or coinsurance provisions of the plan for charges by preferred providers.

In other PPOs, the preferred providers offer only modest price discounts, but agree to adhere to strong utilization review rules, so that most cost savings come from lower utilization, rather than from lower prices.

Over the last several years, the Preferred Provider approach has spread from California to other states, so that there now are several hundred Preferred Provider networks in operation. The pace of further PPO expansion may depend largely on the time needed to overcome some regulatory obstacles to PPOs that still exist in some states.

Developing Preferred Provider networks is a rather expensive and time-consuming process for an insurer, which has to be replicated area-by-area. The potential return on this capital investment is the expectation of better sales, more rapid growth and more favorable claim experience.

Some health care management firms now are setting up PPOs consisting of groups of provider agreements which they make available to several insurers, to reduce the costs and leadtime that each insurer would face in setting up its own network.

Health Maintenance Organizations (HMOs)

Health maintenance organizations are providers of health care services, but they operate much like insurance companies;

- The consumer (or his employer) pays a fixed price each month, for which the HMO agrees to supply all the health care services needed by the buyer's family.

- In return, the HMO assumes the financial risk of whether the price will cover the costs of providing the services.

With combined responsibility for both financing and delivery of health care services, HMOs have long been viewed by some health care planners as a promising solution to the problem of rapidly-rising costs of quality health care for the American public. Until recently, HMO enrollment growth had been so slow, however, that this potential wasn't being realized.

The HMO picture has changed dramatically in the last 3 years. There now are about 400 HMOs in operation, with total enrollment of close to 20 million members -- growing at the rate of about 25% per year. Organizations which now own, sponsor or operate HMOs include hospital chains, physician groups, insurance companies and independent health care management firms.

The reasons for this improved growth pattern lie in the changes that have been taking place within the HMO business.

Most early HMOs operated on a *staff* model, under which HMO member patients receive all their health care at HMO facilities from a closed panel of HMO physicians who devote their full-time efforts to serving HMO patients on a salaried basis.

With a few exceptions (such as the Kaiser plans), those HMOs generally had only limited appeal to physicians and to most consumers, who often are quite reluctant to break away from established doctor-patient relationships.

Staff model HMOs also had limited appeal to investors, because their development entails a very large capital outlay:

- to acquire the physical facilities and equipment needed to provide quality services, and
- to cover operating deficits during the start-up period until enrollment grows to a breakeven level.

Most of the new HMOs created since 1982 operate on an *IPA* (individual practice association) model, under which open panels of several hundred participating physicians devote a limited portion of their practices to serving HMO patients in their own offices. These IPA model HMOs have much greater appeal to both physicians and consumers.

The IPA design also has helped to attract new investment capital to the HMO business: without the need to invest in bricks and mortar, a new IPA HMO (a) can be started for a much smaller initial capital outlay and (b) can operate profitably at a lower enrollment level.

In some HMOs, the participating physicians in the IPA bear a financial risk, since the level of their fees depends on the actual costs of delivering health care services to HMO enrollees. This risk involvement of physicians is seen as an effective key to controlling utilization of services, both as to hospital confinements and as to services provided in doctors' offices.

The infusion of new capital and the greater appeal of the IPA model are the main reasons for the recent accelerated HMO enrollment growth. It's now expected that about 50 million persons who now obtain health care through the traditional fee-for-service system will instead by relying on HMOs as their health care providers by the early 1990s.

All of the major participants in the group health insurance field now have an active role of some kind in the HMO business. Prudential and CIGNA are each investing hundreds of millions of dollars to become direct providers of health care by creating and operating their own new HMOs. Other insurers have working relationships with HMOs operated by various health care provider organizations.

One possible HMO strategy for an insurer is to develop working arrangements with HMO management firms that will enable the insurer to offer HMO enrollment as one part of a triple-option benefit package in those areas where the HMOs are located.

These HMO management firms typically have developed specialized expertise in developing the organizational structure of HMOs, providing EDP software systems and other administrative services, marketing and utilization controls. Some of them specialize in working with doctor groups, others with hospitals and others with investors who have been lured to the HMO field.

They typically derive their revenues from a management contract, under which they supply supporting services in such areas as marketing, pricing, administration, statistical analysis and day-to-day utilization review. Some of them also may own a minority interest in the HMO.

Some of these firms also are trying to tap into the PPO phenomenon by developing ancillary operations that will use the HMO's IPA network as a nucleus for providing other services. They are trying to establish a role for themselves in the marketing of triple-option benefit programs to employers and as providers of utilization review services.

Alternative Financing Arrangements

By now, most large employers have replaced most of their previous fully-insured group health benefit plans with non-insured or partially-insured benefit programs. Such changes have enabled these employers to improve their cash flow and to reduce their total benefit plan costs by avoiding some of the premium tax costs associated with insured coverage.

Effective cost containment will be particularly valuable to those employers who have non-insured or MPP plans on which benefits are payable directly from employer funds, by giving direct immediate cost savings to the employer.

Reliance on Outside Suppliers of Services

The trend toward self-insured coverage has led to an unbundling of the package of risk assumption and administrative services that insurers traditionally used to supply to their group customers. Employers now have an option to deal with separate suppliers for the benefit planning, financial management, administrative, utilization review and employee communications services involved in managing their benefit plans.

Insurers still compete with each other in the group marketplace, but they now also must compete with a wide variety of other specialist firms for roles as suppliers of specific services to employers. Some independent TPA (third party administrator) firms have been particularly effective in marketing claim processing services at a favorable price.

Intense price competition in the marketing of unbundled claim processing services accentuates the importance to insurers of tight controls on their administrative expenses. Some TPAs have developed efficient computerized systems and effective expense controls, without the heavy overhead costs associated with similar functions performed by an insurer.

Some insurers see this increased use of outsider suppliers as a key step in their ongoing efforts to maintain the tight controls on group administration expenses, which they see as critical to their capacity to price their services competitively.

MR. KING: One of the aspects of Medicare reimbursement that we have already discussed was the Prospective Payment System. Another thing that you've heard discussed here today is HMOs. Medicare is trying to encourage HMO participation in Medicare through the payment mechanism.

Medicare has developed a new reimbursement mechanism for HMOs that's more compatible with the way HMOs and other similar organizations (which Medicare defines as competitive medical plans) do business. This payment is based on the adjusted average per capita cost (AAPCC), which is very simply defined as the actuarially determined cost of Medicare coverage for an individual who had

not been in the HMO and instead had been in the fee for service sector. The actual payment to HMOs is based on 95% of the AAPCC, not 100%. The theory here is that HMOs have already proven that they are more efficient than the fee for service sector; they can provide care for as low as 80% of the AAPCC. Therefore, if Medicare can induce an individual to leave the fee for service sector and join an HMO, Medicare will save 5%, but the HMO will still profit because it will be able to provide the care for 80% of the AAPCC. The current categories that we use for making adjustments to payments to HMOs are age, sex, geographic area, end-stage renal disease (people who are on kidney dialysis), institutional status and welfare status. You notice that these categories are categories that are not subject to gaming. They're relatively objective payment criteria.

One of the most controversial aspects of the AAPCC payment is that it doesn't provide for a health status adjustment. Many people believe that a person's health status is far better correlated with what we spend providing care to him than any of these categories. In fact, if we were to run regressions, we would find that various indicators of health status are actually better correlated with health costs than these demographic categories. However, there are some disadvantages to the health status adjustment. The most serious one is that the relationship between the insured and insurer does not exist as it does in traditional health insurance. In other words, the HMO and the beneficiary joining the HMO both have the incentive to characterize the beneficiary's health status as being relatively sicker instead of relatively more healthy. That's because the more sick that the HMO characterizes the beneficiary as being, the more the Medicare payment rate to the HMO will be, and the more extra services that the HMO will be able to provide. Also, health status is highly subjective, and if the HMO is determining it, there is the possibility of abuse. The HMO or competitive medical plan could utilize selective marketing or other devices in order to select healthier risks, and, finally, the health status adjustment could be used to increase the impact of selection.

The example in Table 11 shows how a health status adjustment to the AAPCC could increase the effects of selection. Table 11 shows six people who are going to be enrolled in an HMO in the presence of selection. Health status "B" are the sicker people, and health status "A" are the healthier people. Notice

Simplified Illustration:

Impact of Health Status Adjustment if Selection is Present

Health Status A (Healthier)	Health Status B (Sicker)	Average Health Status
		
1A 2A 3A	1B 2B 3B	1A 2A 3A 1B 2B 3B
$50 $200 $50	$100 $500 $150	$50 $200 $50 $100 $500 $150
AAPCC = $100	AAPCC = $250	AAPCC = $175

- Assume HMO enrolls 1B and 3B
- Without health status adjustment, HMO profit is:

  .95 x $175 x 2 - $100 - $150 = $82.50
- With health status adjustment, HMO profit is:

  .95 x $250 x 2 - $100 - $150 = $225

that the health status categories are not homogeneous. That is, there are two people in the sicker health category who actually incurred lower costs than one person in the healthier cost category. However, in the sicker cost category, the AAPCC is $250, and the AAPCC for the healthier category is $100, which in each case is just the average cost in the category. Alternatively, if you group all the people together without a health status adjustment, the AAPCC is $175. Now, let's assume the HMO enrolls persons 1B and 3B. Without a health status adjustment, the HMO's profit is 95% of $175 for the two people, less their costs of $100 and $150, for a total profit of $82.50. If we have a health status adjustment, then in the presence of selection, the HMO's profit is 95% of $250 for each of those two individuals, less the total cost of $250 that it cost the HMO to treat those people, for a total profit of $225.

This may look rather strange, and you have to think about this for a while to see what's going on here. Of course, one of the problems is that the health status categories are not homogeneous. They overlap quite a bit, and I would suggest that virtually any health status adjustment that has been determined so far will have these overlapping categories. The other thing to notice, of course, is that we gave you a very biased example: we said that the HMO was going to select the beneficiaries that it can make the biggest profit on, so it selected these two individuals. That's why we feel that the best way to handle selection by HMOs (and there is some evidence that selection is going on so far under this risk-based reimbursement system for Medicare) is through administrative means rather than through further adjustments to the demographic categories.

The new payment mechanism appears to be working well in the sense that HMOs are very anxious to participate in it, the growth of HMOs has been encouraged by this new payment mechanism and Medicare beneficiaries are enrolling in these new HMOs, which is something that hadn't happened prior to the enactment of this new payment system. Medicare beneficiaries were generally left out of HMOs unless they happened to age in when they became age 65 and joined the Medicare program.

MR. LARIMER: Joint ventures is one of the new words in health care. Who are some of the players in these joint ventures? Generally you have providers,

hospitals, and doctors. You also have insurance companies as big players in this new arena, and occasionally you find a third party administrator getting involved. Other parties are trying to act as intermediaries, bringing the doctors and the hospitals and the insurance companies together and somehow trying to maintain or get a piece of the action for themselves. Employers have been involved in situations where they provided capital for certain HMOs in some smaller areas. A large employer will set up an HMO and after it has been set up, go out and seek other employer groups.

There are many possibilities as to what a joint venture could be. It could be a medical group or a hospital contracting with an insurance company or purchasing an insurance company or forming an insurance company. It could be a doctor group contracting with an HMO or contracting with Blue Cross.

One of the more exciting areas is hospital mergers, which are really joint ventures. These may involve a group of hospitals that decided that if they put together a joint venture, they could more effectively battle against other hospitals.

Restraint of trade is pretty important here. Participants are finding out that certain joint ventures can get around restraint of trade laws, up to a limit; but this situation may not last long. For example, say there are three hospitals that are not dealing with each other or don't have any form of joint venture. It would be restraint of trade to conspire to drive a third out of business, or meet and somehow divide up market share. However, if two of the hospitals got some sort of joint venture going, they could, as partners, divide up the market share and, within limits, try to drive this third competitor out of business. This is one of the things that has astounded some of the lawyers involved, and they think there will be a crackdown soon. Some of these joint ventures almost have restraint of trade as their raison d'etre if you dig deeply into them.

Another structural change is occurring with HMOs. The typical HMO is owned by stockholders in an HMO company. The company in turn is dealing with the providers: the medical groups or the hospitals. In their dealings with these medical groups and hospitals, HMOs have usually had an incentive contract

designed to control costs and utilization with a financial reward to providers for doing so. This has traditionally been the extent of the contract.

However, a lot of the providers now are saying that is not enough. They want to actually own a piece of the HMO. As a result of this strong desire to own a piece of the HMO, and thus participate directly in profits and losses, providers are frequently entering into arrangements that will produce far less for the providers financially.

Participants in these joint ventures are all trying to play off of their partners' strengths. A hospital may be after the marketing skills of the insurance company, for example.

Another important aspect is tax considerations. Frequently, hospitals are in a non-taxable situation. When they are involved in potentially profitable joint ventures, they create for-profit subsidiaries to protect the non-taxable status of their existing enterprise.

A common characteristic of many of these joint ventures is that there are different players with different perspectives putting a deal together. Hospitals feel that if they cut a deal with an insurance company, the insurance company will be directing patients to them, which is very attractive, since a hospital wants to fill its beds. However, what an insurance company wants is to control costs, and one of the best ways to control costs is to not have someone go into a hospital. Clearly, there's going to be some pushing and pulling before these things work themselves out.

Another interesting topic is the concept of an organization seeking an identity. In Chicago, there are many HMOs being organized. Some of these are being set up by medical groups. We have a situation where a medical group is a participating HMO Illinois medical group. It has also set up its own HMO. It becomes very confusing when the two HMOs approach the same large employer. An employer might send employees to the same clinic, both as part of HMO Illinois and as part of the stand-alone HMO.

There are many other confusing situations developing. In Chicago there are many different organizations that are sticking Michael Reese's name on themselves. There is the Michael Reese Hospital, and there is the Michael Reese HMO. There is a recently-founded Michael Reese IPA, a physicians' group which is contracting with different HMOs. If you will, think of the whole thing as an enormous identify crisis. These various entities are trying to tie into each other while asserting their own independent identities.

Clearly, there's a great deal of confusion in the marketplace right now. Perhaps my remarks have displayed some of that confusion. In any case, I think that bringing order out of this chaos will provide a lot of interesting work in the years to come.