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THE PROFESSIONAL CHALLENGE OF INDIVIDUAL MEDICAL INSURANCE

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Insurers have been getting out of the individual medical expense market. This session will address the implications of such a decision and will cover:

- . Nature of the problem
- . Viability of individual medical products
- . Challenge to the actuary
- . Consequences of withdrawal
- . Alternatives to withdrawal

Particular emphasis will be placed on the challenge to the actuary, with stress on education and research demands.

MR. WILLIAM F. BLUHM. We have modified the outline that is in the program. The structure which we now propose is to first describe the problem as we now see it in the individual medical market, secondly, to describe some of the potential solutions that the panelists see, and thirdly, to discuss some of the challenges that we see facing the actuary.

Charles Larimer has been with Health Care Service Corporation in Chicago for the last three years. He was recently promoted to Actuary and officer responsible for pricing and product development for individual small group and HMO products. Before Blue Cross he was at CNA Insurance for six years in group pricing and product development.

Paul Barnhart has been in the health insurance field for his entire career, starting at Occidental in California in 1954. He opened a consulting practice in St. Louis in 1964, and has been the author of many papers in the Transactions. Two of these are on the exam syllabus including a 1960 paper on Adjustment of Premiums on Guaranteed Renewable Policies. He was elected to the Society Board of Governors in 1970, was Vice President in 1973, and became the President elect in 1977. He helped found the Health Section in 1982, and was elected to its first council and was twice elected as chairman of the council.

Noel Abkemeier is Senior Actuary, responsible for individual health at All-state Life. He is the chairman of the Basic Education Subcommittee of the health section, and chairman of the Research and Development Committee of the HIAA, where the main project is the study of the Health Care delivery system in 1990. He is the chairman of the HIAA Actuarial Task Force on unisex pricing and is a former chairman of two HIAA committees - one the Individual Actuarial Sub-Committee and the other the Task Force on Cost Containment.

MR. NOEL J. ABKEMEIER. Individual medical insurance is an area of insurance and actuarial expertise which has been virtually devoid of positive news for a decade and has generally brought headaches and frustration. The common picture has included financial losses, withdrawals by insurers from the marketplace, or, at best, a product modification intended to protect the insurer. In order to look toward the future and determine if we are in store for more of the same, it is best to first analyze the current situation; then we can identify the options open to us.

The environment to be considered includes forces external to the insurance company and others within it. I would like to comment on each kind, starting with the external forces.

EXTERNAL ENVIRONMENT

I see four categories of external influences: economic forces, consumer attitudes, the limitations inherent to the nature of the individual policy, and regulatory limitations. Each of these is a complex challenge in itself.

Economic Forces

The dominant economic problem from the perspective of the consumer is the affordability of the coverage. In some areas a comprehensive major medical policy for a family might cost 25 percent of the median family income. The tax deductibility which mitigated the burden has been eliminated and the deductible has been increased from 2 percent to 5 percent.

This unaffordability for many has been caused by inflation in medical costs which has been brought about by general inflation, deductible erosion, an increase in the quality of medical care, an improvement in the status of medical personnel, the aggressive pursuit of malpractice claims, technological improvements, profit oriented hospital charging methods, and cost shifting. In relation to cost shifting, it is possible we are beginning to be affected by a new kind. You are familiar with the passing of extra costs to insurers and individual payors because the federal government and some service corporations paid less than a proportionate share of costs within a hospital. Now, preferred provider arrangements have the potential of shifting costs to the detriment of individual policy insurers if the discounts become too deep or if preferred provider arrangements have hospitals merely trading business at discount rates.

The high expense loadings of individual insurance exacerbate the affordability problems caused by the various kinds of inflation. The 55 percent loss ratio of an individual policy is much more likely to raise concerns than is a 90 percent loss ratio that might relate to group insurance.

The various contributors to the affordability problem mainly fall beyond the control of the insurer, but some can be addressed. One exception is deductible erosion, which can be combatted with dynamic deductibles in new products and insurer initiatives in the form of product upgrades in existing business. The cost of emerging technology can be avoided with the elimination of the coverage of experimental procedures; however, this delineation may be difficult both in contract drafting and in

interpretation at the time of claim. Finally, the imposition of inside limits upon the policy will aid affordability but the cost is paid by the consumer in the decreased adequacy of the coverage. I will comment more on these in the discussion of the viability of individual medical insurance.

The principal economic problem from the perspective of the insurer is the unprofitability or marginal profitability. This is born of the unpredictability of claim cost increases and the difficulty of responding to them on a timely basis. This has been caused by cost shifting and the higher inherent level of medical cost inflation. Life actuaries have the luxury of knowing their insureds will die almost on schedule or, if not, at a more favorable rate and that the benefits are unvarying. We health actuaries know the frequency of medical expense claims with less precision, must adjust to the evolution of medical care standards, and must respond to the changing practices of providers and governmental bodies. Little suggests that this environment will change.

The impossibility of predicting the changes in the pricing factors leads to premium inadequacy. The necessity of demonstrating to regulators through experience the need for higher premiums further aggravates the problem.

Consumer Attitudes

The second external environmental factor is consumer attitudes. The strongest influence is the high value that each person places on his health and the desire to maintain that health. In the absence of incentives to limit expenditures on health care, the consumption of health services grows as new treatments emerge and as expectations for good health rise. Individual medical policies have generally lacked sufficient incentives to limit usage and change consumer attitudes.

The consumer's lack of concern could be mitigated with a larger assumption of risk by the consumer through coinsurance and the use of larger deductibles. In general, consumers have been reluctant to assume a greater responsibility for the financial risk. It is only when unaffordability has been imminent that there has been increased risk sharing. Problems are solved only where they start to become painful; perhaps that point has arrived for individual health costs and the result will be cost sharing.

The high cost of individual medical insurance has made cost a concern of the consumer with the result that cost shopping is common before purchase and regularly thereafter. This creates more expense and anti-selection and thus aggravates the previously mentioned cost pressures for both the consumer and the insurer.

Product Limitations

There are a number of responses to the problems which are possible in other forms of medical expense benefits but are unavailable in the individual policy. The use of preferred provider arrangements and pre-approval of noncritical care is not practical because of the geographical spread of the insureds. Education of the insureds about less expensive alternatives is difficult because of the loose ties between the insured and the insurer.

Unilateral improvement of deductibles is not possible on most business currently in force. The timely adjustment of rates is not possible because of the need for multiple state rate approval and because these increases tend to be obtainable only after the development of unfavorable experience. The process of multiple filings and approvals in itself adds cost.

The fact that the product is sold to an unsophisticated buyer and is often sold by an agent who does not specialize in the business leads not only to oversimplified products but also misunderstandings.

The contract itself is static so that changing business practices by hospitals may make contract limitations ineffective in some policy exclusions. For example, treatment in certain types of facilities, such as drug and alcohol treatment centers, may have been excluded by contract, but the enforcement becomes difficult when such facilities no longer are free standing but are blended into a hospital complex. Thus the facility becomes a "hospital" and treatment must be reimbursed. Finally, there is no Coordination of Benefits, thus duplication of insurance is possible and cost saving incentives can be rendered valueless.

Legislative and Regulatory Limitations

The final external factor is the web of restrictions imposed by intense state regulation. The process itself is quite expensive and the requirements it brings create new challenges for the insurer. Mandatory coverage of emerging treatment areas and mandatorily optional coverage of benefits vulnerable to anti-selection impose new liabilities on insurers. This has occurred most recently in coverage for alcoholism, mental illness, and drug abuse.

The possibility of mandatory unisex pricing exists and this would present significant actuarial challenges. Males would be sharing the cost of maternity care, males generally would be subsidizing the cost of female benefits at most ages, and females would subsidize at other ages. Massive market dislocations would affect everyone and would favor some vendors while placing others at a severe disadvantage. A factor of chance would be introduced into pricing for several years until the market restabilized.

INTERNAL ENVIRONMENT

The external environment has created a reluctance to commit company resources to individual medical insurance. None of the characteristics create optimism when contrasted with the potential of life insurance or annuities. Over the short term, medical expense insurance is relatively labor intensive for legislative and regulatory compliance, experience analysis, claim handling, and general administration. In the mid-term, the profitability is uncertain on an annual and a continuing basis. Also, the product does not present much potential for investment profit, an item catching the eye of management. Over the long term, the growth potential is unclear. Although premiums may grow, the market may be further eroded by baby group insurance and HMO's. However, although individual medical insurance is difficult to identify as a high priority line, it may complement the marketing of other lines of insurance and merit corporate support. Charlie has some comments also on the environment.

MR. CHARLES F. LARIMER. At Blue Cross Blue Shield of Illinois the largest problem we've had to deal with in the last few years in our individual health line has been the problem of anti-selection during periods of high lapse rates. Healthy individuals have had a much higher lapse rate than unhealthy individuals. Of course this stems from all sorts of other problems and then leads to other problems.

We went through a long period of strict state regulation where adequate rates were not allowed to be charged. When this regulation relaxed a little bit and proper rates were allowed to be charged, the block of individual business declined rapidly as these rates were installed. We were in a period of high inflation which made the problem even worse.

Cost containment and benefit cutbacks were tied into all of this, as a means of reducing the magnitude of the rate increases necessary, which obviously were accentuating the lapse problem.

Having gone through this period of high lapse rates caused by rate catch up and inflation, we now see our problem as "How does one save a pool that has already been subject to high anti-selection through the lapse process" or in other words, "How do you bring new blood into an old pool?"

The viability of individual medical products is being threatened by this lapse problem. In order for an individual medical product to be viable, I feel that these products must adapt and borrow, like any good evolving organism. Many of the ideas borrowed in individual health come from ideas originally tested in the group lines. I feel that this must continue. There also are some schemes coming from other areas, such as automobile insurance, that are currently being considered. Now Paul will discuss some of the potential solutions to this problem.

MR. E. PAUL BARNHART. I rather hesitate to use the words potential solutions. I rather think in terms of some devices that might serve to mitigate the problem, but I would not go so far as to suggest that these things would actually solve it. I do think, however, they would help significantly.

Incessantly escalating cost, utilization rates and anti-select lapsation have become almost a "law of physics" under individual medical insurance. The result, as we are all too sadly aware, is ever expanding cycles of larger rate increases, attended by still greater anti-select lapsation, or else large scale non-renewals by affected insurers and withdrawal of available coverage. Alternatives to these cycles are desperately needed.

There has been a lot of attention given to cost containment in dealing with the problem in this area, but I think insurers, particularly in the individual medical expense area, also need to deal with devices to mitigate this problem through benefit adjustments and various measures that can help to control the rate at which premium rates increase. Two devices that should be more widely used are indexing coinsurance factors and limits, and indexing deductibles. For example, the coinsurance factor for a plan might start out paying 90% of expenses above some deductible up to some out-of-pocket limit with the coinsurance percentage indexed. There are obvious limitations to indexing. For example, if you start out at 90% coinsurance and drop it 5% each year to offset cost increases, it is impractical to visualize that going beyond 50%. The indexing of deductibles, I think, shows more promise, because it both has more effect and at the same time its reasonableness can

be better understood by consumers, and because it is possible to index deductibles at some rate that has a reasonable relationship to the rate of inflation itself. The coverage in the long run, I think, remains more viable and more useful to the insurer.

Plan deductibles and/or indexing coinsurance factors and limits can be designed to index:

- a) Automatically, at an appropriate "objective" rate, such as the medical price index.
- b) At fixed pre-determined rates. For example 5% a year might be one way of approaching this at a known fixed pre-determined rate. The trouble with this being that it cannot respond to radical changes in the rates of inflation in utilization.
- c) As automatic offsets to alternative increases in premium rates or, alternatively, in underlying trend rates. For example, to offset any rate increase or underlying cost trend rate, in excess of 15%. The indexing of a deductible for example might be carried out to the extent needed to hold the increase in premium rates or in underlying trends to a maximum of 15%, thereby placing a ceiling on the rate which premium rates actually can be increased in the renewal years.

The following chart* illustrates the effect of indexing deductibles as an offset to underlying trend rates in excess of 15% as an example threshold level. Let me emphasize that while these figures are meant to be realistic, they are still purely illustrative, and I have purposely not defined any specific plan of benefits related to these costs and percentages.

I am assuming that, for a particular age/class cell, or as a composite of the coverage in force, the continuance probability functions shown approximate the on-going claims experience. The "initial" function shown defines the claim pattern expected when a block of policies is originally issued. From the initial probability function it can be seen that the probability of a claim reaching \$40, once it has begun, is equal to 1 (substitute $D=40$ in the function). The probability of D (claim dollars) higher than 40 is determined by the formula for $P^{(D)}$. In addition to the above continuance, the initial incidence rate is assumed to be 50% at the \$40 point. In other words, half of the policyholders or individuals covered are expected to reach medical expenses in a given year equal to \$40. The probability function takes over and measures it from that point on out.

From this function, we can readily calculate the expected claim incidence rates and annual claim costs for various front-end deductible levels, as illustrated. Similar calculations can readily be made for additional plan features such as co-insurance corridors and percentages, and out-of-pocket limits beyond which 100% insurance coverage takes effect, up to any plan maximum benefit level. One million dollars is the maximum assumed per claim, in the illustrative calculations.

The first row of numbers under line A represent a series of choices as initial deductible. This plan might be marketed by some carrier with that

*Chart appears on the next page

AMOUNT OF DEDUCTIBLE INCREASE TO OFFSET COST INCREASE

INITIAL COMPREHENSIVE COST CONTINUANCE FUNCTION: $P^{(D)} = \left(\frac{390}{350+D}\right)^{1.6}$

(PROBABILITY THAT COVERED EXPENSE, ONCE STARTED, WILL REACH D DOLLARS)
 \$1,000,000 MAXIMUM INCIDENCE RATE AT \$40 EXPENSE = 0.50

A. INITIAL DEDUCTIBLE: 200 500 1000 2500 5000 10,000
 1. ANNUAL CLAIM COST: 261 201 151 96 65 43

B. 15% INDEX ADJUSTMENT: $P^{(D)} = \left(\frac{448.5}{402.5+D}\right)^{1.6}$ INCIDENCE RATE AT \$46 = 0.50

1. ADJ. ANNUAL CLAIM COST: 309 242 185 118 80 53
 % OF A1: 118% 120% 123% 123% 123% 123%

2. DEDUCTIBLE CHANGE TO HOLD COST TO 15% INCREASE: 230 575 1150 2875 5750 11,500

3. TO HOLD TO 0% INCREASE: 396 831 1557 3735 7364 14,622
 % OF INITIAL DED: 198% 166% 156% 149% 147% 146%

C. 30% INDEX ADJUSTMENT: $P^{(D)} = \left(\frac{507}{455+D}\right)^{1.6}$ INCIDENCE RATE AT \$52 = 0.50

1. ADJ. ANNUAL CLAIM COST: 358 285 220 142 97 64
 % OF A1: 137% 142% 146% 148% 149% 142%

2. DEDUCTIBLE CHANGE TO HOLD COST TO 30% INCREASE: 260 650 1300 3250 6500 13,000

3. TO HOLD TO 15% INCREASE: 422 900 1696 4087 8071 16,040
 % OF INITIAL DED: 211% 180% 170% 163% 161% 160%

4. TO HOLD TO 0% INCREASE: 652 1256 2263 5282 10315 20,380
 % OF INITIAL DED: 326% 251% 226% 211% 206% 204%

choice of deductibles available. The choice of initial deductible ranges from \$200 up to \$10,000 in this illustration. Using the 50% incidence rate along with the probability function, we can calculate the theoretical annual claim cost. The initial annual claim costs are shown on line A1 of the chart, and represent the benefits in excess of the respective series of deductible choices.

Next, assume that for the second year the plan is in effect a 15% trend rate (covering unit cost and utilization) is expected. To adjust for this assuming the total relative pattern of claim cost probabilities persists, the probability function must be adjusted as shown, increasing each internal constant by 15%: 390 becomes 448.5, and 350 becomes 402.5. Further, the starting point at which the function is assumed to define the continuance, and for which the initial base probability of claim is 50%, must likewise be adjusted by 15%, from \$40 to \$46.

Line B1 shows the resulting indexed claim costs, assuming no change in the deductibles. As is well known, the claim costs in excess of the fixed deductible increase by more than 15%, the rate rising with the size of deductible: in this case from 18% for a \$200 deductible to 23% for a \$2500 deductible. The rate tends to level out, in part because I have not changed the \$1,000,000 maximum. With a \$5,000 or \$10,000 deductible and a 15% trend rate the function used in this illustration does assign a little bit of cost to claims going over a million dollars. For example, the \$53 claim cost on line B1 for a \$10,000 deductible plan includes about \$1.50 from claims over a million dollars. The maximum is another plan element that, of course, can also be indexed. Indexing the maximum would probably help in the acceptance of the program by policyholders to at least show that their maximum was being increased along with their deductible.

Line B2 shows the amount by which each deductible must be indexed to stabilize the claim cost at the same 15% index rate as that which applies to the underlying trend. Each deductible, as is obvious, must increase by the same 15%.

Next, line B3, shows the increase in deductible, by amount and percentage, that would be necessary if the objective were to hold the claim costs constant. These percentage increases reduce by size of deductible, from 98% for the \$200 deductible, now \$396, to 46% for the \$10,000 deductible, now \$14,622. These increases are quite large, and clearly impractical, since few policyholders would accept such radical adjustments and resulting dissatisfaction and lapsation would be worse than ever. You pretty much have to concede that the premium rates are going to have to increase. What has to be done is to work out the happy medium. What is the reasonable combination of increasing rates along with indexing deductibles? My own opinion is that the best medium is the 15% rate increase in the deductibles. Indexing at the same rate as the expected underlying trend is a reasonable alternative to uncontrolled cost increases, and really quite logical. At today's rates of cost escalation, the insurance buying public simply has got to get used to the idea of indexing deductibles, or other equivalent cost control devices.

Finally, the chart shows the effects of a 30% trend rate, along with similar indexing controls designed to limit cost increases to 30%, 15%, and again 0%. Again, the 30% control indexing is within reason, while attempts to limit cost increases to lower rates become increasingly impractical. As before, a 30% trend control means increasing the deductibles themselves by the same 30%.

Before moving on to other comments, let me also mention that this same kind of indexing device works well in relation to inside limits, such as hospital room, surgical and medical limits or amounts.

MR. LARIMER. In terms of plan design for cost containment, there are several experiments under way in the Blue Cross-Blue Shield system today.

In the Minneapolis/St. Paul area individuals are being allowed to enroll in the Preferred Provider Organization (PPO) initially set up for groups. The PPO network is quite extensive in the area. Nearly all of the twenty-seven or twenty-eight hospitals in that area are included as eligible hospitals. Having such a product allows much easier use of various cost containment techniques such as concurrent review and preadmission certification. In fact most utilization review programs for the individual contracts in the Minnesota PPO were just a simple expansion of those already in place for group business.

In the Boston area the Blues will be offering an individual medical product that includes preadmission certification and concurrent review. This product will have a rate difference around 5% vs. their Major Medical product that does not have the preadmission certification and concurrent review. They have plans to expand their program across the entire state if it works out well in the Boston area.

The Federal Government is also getting into the act of borrowing from the group ideas and expanding into individual lines. Recently there have been expanded efforts to persuade Health Maintenance Organizations (HMO) to enter the individual Medicare Supplement market. As part of Tax Equity Fiscal Responsibilities Act (TEFRA), the rules for reimbursing HMOs were changed to make it more economically interesting for an HMO to enter the individual over 65 market. The new regulations let the HMOs keep a larger percentage of any profit generated, or at least return less of it to the government. Former rules would only let an HMO keep 1/2 of the first 20% of premium profits and thereafter all the profits would go to the government. The new rules, in essence, give the HMOs a little bit less money to begin with but to the extent that the HMO can make a profit they do not have to give any of it back to the government.

In each case much of the what I've called profit must in actuality be returned to enrollees in the form of expanded benefits. Also the new rules have fewer reporting requirements for some HMOs.

Generally the new HMO Medicare Supplement rules have not yet been implemented other than in a few demonstration products around the country. The final regulations interpreting the law have not yet been published. The word out of Washington is that the government actuaries are the ones getting cold feet on the issue. The initial intent from the government side was that such a program should at least save the government in the long run. Budget neutrality pops up in many of their discussions. The fear of the government, which will be reimbursing the HMOs on a capitated or per head basis, is that the HMOs will be skimming the healthy lives. This would leave a non-HMO population that would cost, on a per capita basis, more than the current population.

This is the same argument that is often thrown out today in describing or explaining why an HMO has lower hospital utilization than a non-HMO population. Those that are currently seeing a doctor are not likely to switch doctors, which is usually required when they move into an HMO. The theory is that an HMO starts with a very select, or healthy group of people. In any event, for those of you who deal heavily with individual Medicare Supplement type policies, you will shortly be having new competitors throughout the country.

In terms of new pricing mechanisms, at the Illinois Plan we are now giving heavy consideration to a band rating concept for a large pool of individual contracts outside the Chicago metro area. This idea is borrowed primarily from automobile insurance, and has also been used in some small group situations. Let I sound too original on this topic, Mr. Barnhart, acting as a consultant for the association that sponsors these individual contracts, was the one who actually made the first proposals to my company about this concept.

The theory behind why a band rating mechanism might save a dying pool, or at least slow down its deterioration, can be surmised by looking at the statements that are on this slide.

Slide 1

Force on Lapse	Prob. of Lapse
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(1) (a): Health Status Improves	Increases
(b): Health Status Deteriorates	Decreases
(2) : Absolute Amt. of Rate Change Increases	Increases
(3) : Rate Diff. vs. Ind. U/W rates Increases	Increases

The first statement is that the lapse rates are very dependent on health status. The probability of a lapse increases as the health status improves, or conversely the more unhealthy a person is the less likely that individual will be to leave the pool.

The second statement is that the probability of a lapse increases as the absolute amount of a rate change increases. This is tied closely to the irritation level generated after receiving a rate increase notice, as well as economic reasons.

The third statement is that the probability of a lapse increases as the relative difference between the pooled rates and new individual underwritten rates increases.

All of those statements are fairly obvious, and have been observed over recent times in studies of our own business.

The intermediate goal of our band rating system will be to generate lapse rates that do not vary so greatly by health status. Of course we are trying to reduce the overall lapse rate.

By making rate increases for healthy policyholders smaller (with reference to statement 2) and the rates closer to underwritten rates for those healthy individuals (with reference to statement 3) the band rating mechanism will make lapse rates less dependent on health status (reference statement 1).

Again, the intermediate goal is to reduce lapse rates for the healthier policyholders. This, in turn, we hope will slow down and possibly reverse the direction towards an assessment spiral.

It is important to note that the purpose is not to make each cell self-supporting. In general, the policyholders in the cells for the healthier policyholder will be expected to make a positive contribution to the pool, and vice versa.

This next slide shows a generalized description of the band rating concept we plan to implement. Once a year we will review claims on the individual contract level and change the band for those individuals. We are setting a limit of an increase or decrease of only one notch per year and each notch will be worth 5%.

Slide 2

Rates as a Percent of Base Rates

Band	U35	35-44	45-54	55-64	
1	70 %	75 %	80 %	85 %	Expected Positive Contribution to Pool
2	75	80	85	90	
3	80	85	90	95	
4	85	90	95	100	
5	90	95	100	105	Expected Negative Contribution to Pool
6	95	100	105	110	
7	100	105	110	115	
8	105	110	115	120	
9	110	115	120	125	
10	115	120	125	130	
11	120	125	130	135	
12	125	130	135	140	
13	130	135	140	145	

Range of Eligible Bands may vary by age.

Band Moves: Based on Paid Loss Ratio or DRG.

Move only 1 band per year,

up/down/same

There are several methods by which the system could have the bands changed from year to year. The most simple method is on a paid loss ratio basis or some other form of loss ratio. A more sophisticated method would be on some DRG or diagnosis related group basis.

The next slide shows how a rating scheme might be constructed. Current members would be brought in to this new pool, rolled over into this new pool at one level. A different level for those passing underwriting would be set. It would be possible to work in such things as no smoking discounts in the band rating concept by allowing non-smokers to be brought in at one band level and smokers in at another.

Slide 3

Initial Year - Possible Structure

Age	Base Rate (= 100 %)	Band for Current	Band for New Entrants & Current who pass Ind U/W	
			Smoker	Non-Smoker
U35	\$30	100 %	80 %	70 %
35-44	40	110	85	75
45-54	50	120	90	80
55-64	60	130	95	85

In the initial year we would probably allow current members to submit to underwriting and be moved to the band closer to that of new entrants. New entrants would be subject to pre-existing condition limitations that existing members would not. Therefore we would not necessarily move existing members who pass underwriting all the way down to the level for new entrants.

Management systems to keep track of this band rating system will of course cost much in terms of time and dollars. We believe that it will pay off in the long run.

The actuarial analysis of such a mechanism gets to be tricky. Solid projections by cells will be needed. Each cell in such a system will not necessarily have a rate that is expected to be self-supporting. Therefore, a fair degree of conservatism is needed in the cell distribution projections. It is very important not to get into a chain letter type philosophy when setting rates. This could happen with overstated projections of new members at rates that would be giving relief to those in the higher rated bands.

These problems of cell projection actually exist even when band rating is not used. Frequently analysis will assume that a pool will continue to have the same percentage of healthy vs. unhealthy lives, other than aging aspect. This is really just an implied assumption, that often is not true.

One of the troubles with the band rating analysis is that non-actuaries will be projecting a large influx of new members at rates which positively contribute to the pool. Much caution is needed here.

If after several years of actuarial studies, the mathematical relationships of rate increases vs. lapse rates vs. anti-selection were known, it would be solved for the maximum profits in a given year. Some of the variables would be the number of band unit changes allowed per year, and the size of band increments. However, my suggestion would be to start slowly and not attempt to maximize short term profits vs. long term considerations.

In setting up a system like this, one must be cognizant of policyholder, public, and insurance department perceptions.

Maximizing profits for a particular year could be very contrary to the long term viability of such concept.

If either policyholders, public or the insurance department felt a band rating concept were contrary to the best interests of the insured public, then all sorts of external problems can be created. The general perception by policyholders, the public, and the insurance department is that insurance is to protect policyholders against such things as high claim experience and that this band rating system is really just taking away from that insurance that they purchased. They may perceive that the insurance company is retroactively making them pay for their claims that the insurance was supposed to cover.

A great deal of actuarial analysis must be done in implementing the band rating concept. In fact, some of our marketing staff has described the whole thing as an actuary's dream. Many calculations must be done on the policyholder level and a much more detailed explanation must be given to the policyholder. Now we will turn it over to Noel.

MR. ABKEMEIER. I would like to comment on both the indexing concept which Paul described and the banding concept which Charlie described.

At Allstate we offer a product which reflects the deductible indexing design concepts that Paul just mentioned. It provides comprehensive benefits but contains inside limits. Benefits for room and board, surgery, intensive care, private duty nursing and others are expressed as multiples of the room and board benefit. The deductibles similarly are expressed in terms of the room and board amount. The customer selects the desired room and board benefit from a range around the average semi-private cost in his area. In this fashion he can choose the level of benefit for which he can afford both the premiums and the necessary cost sharing. The inside limits provide some protection to the insurer.

In subsequent years the room and board limit, the related benefits, the related deductibles, and the premium all increase in proportion to the Hospital Room Component of the Consumer Price Index. This premium increase is added to a Yearly Renewable Term (YRT) increase. This maintains benefits of similar adequacy as at issue, eliminates deductible erosion, protects the insurer against uncontrollably increasing costs, and maintains the same relationship of premiums to benefits as existed at issue. In general, this satisfies the needs of both the consumer and the insurer.

The banding concept which Charlie described can not only serve to revive a dying pool, but also is a way to gain and retain good risks. A slightly more dramatic version of this band system is to express it in terms of discount percentages. Initially, the insured may get a non smoker discount but this would be reduced and eliminated over three years, or so. A discount of perhaps 15 percent could be earned beginning in the third year if claims are low in the most recent year and another 15 percent on subsequent years if claims are low over a span of several years. This could be faster moving and more responsive to experience and would be more attractive for marketing. The customer could see how he can merit an attractive premium. By converting the bands to discounts, the "Actuary's Dream" can become "Marketing's Dream." The method also can serve as an incentive to reduce costs by using lower cost policy benefits.

MR. BARNHART. The Regulatory Definition of "Guaranteed Renewable".

The regulatory definition of "guaranteed renewable" should be expanded to include plans with coverage elements, such as deductibles, subject to objectively determined indexing not subject to the optional control of the insurer. Restriction of the insurer's right solely to changing the premium defeats the long-term viability of guaranteed renewable individual insurance, to the detriment of the public interest, and has, in my opinion, become obviously impractical.

An open mind, on the part of all parties (actuaries, marketing executives, agents, and especially regulators), with respect to use and experimentation with indexing devices is essential if individual medical insurance is to continue to play a useful role for the public. There is no legitimate reason, in my judgment, why the essential guarantees implicit in the concept of "guaranteed renewable" individual insurance cannot be preserved by expanding the regulatory definition to include indexing devices sufficiently controlled so as not to be abused by insurers.

"Level" Premiums Based on Issue Age Don't Deserve to Be Abolished Just Yet.

In combination with the indexing plan elements described, this pricing mechanism can regain the its viability. To restore this viability, however, regulators should abandon their general opposition to long term projections of cost indexing at reasonable rates, particularly in combination with rate increase dampening devices such as those I have described. Large rate increases inevitably provoke disastrous anti-select lapsation and deterioration in renewing business and are the real villains to be attached, rather than higher initial rates resulting from reasonable long-term trend assumptions used in calculating level premiums. After all, if the prospective buyer thinks some policy is overpriced at the outset, he simply need not buy it. But if it is his renewal premium that jumps by 50%, that is when he complains to the insurance department, and when he may have no recourse but to drop his insurance protection.

From the regulatory point of view, some objective rule is desirable beyond merely "reasonable," with respect to limits on long-term trend projection rates. One practical basis would be to limit the maximum trend or index projection rate to not exceed the ultimate rate of interest assumed in calculating percent values, or to that rate reduced by 1 or 2 points.

Any reasonable device for dampening the size of rate increases deserves open-minded consideration. Such dampening is essential, if disastrous anti-selection and prohibitive rate increases are to be softened. Regulation makes a serious mistake when it forces insurers into YRT rating that simply maximizes renewal rate increases through the combined impact of advancing age, advancing costs and utilization rates, and advancing anti-select deterioration. Maximized rate increases simply maximize renewal anti-select deterioration, and ultimately destroy the value of individual medical insurance to the public. It is close to unaffordable right now.

To illustrate what I mean, the following chart* compares the rate renewal history of YRT and "Level" to Age 65 rate structures, for two plans which are otherwise identical as to benefits and relative assumptions. Both rate structures anticipate 60% loss ratios over the policy lifetime.

In both cases, I have assumed the same underlying 15% trend rates, both contracts involving the same indexing of a \$1000 initial deductible so as to limit the claim costs to 15% annual increase, except for expected anti-selection. Both structures assume yearly rate adjustment.

In both cases, anti-selection is assumed to increase the morbidity level each renewal year by an excess 3%, even though the rate increases are much larger under the YRT structure; hence this comparison is actually biased in favor of the YRT history, if biased at all.

Both structures assume 10% interest for 10 policy years, and 8% thereafter (the YRT rates 10% for each year shown). The "Level" rates provide for 5% underlying trend each year, all the way to age 65, which is 3 points lower than the ultimate interest rate of 8%. Thus, the additional new rate each renewal year needs only to cover the next "level" layer providing for the remaining 10% of the underlying trend; the increment of anti-select 3% excess morbidity due to lapsation is also provided for.

Upon renewal, the YRT scale also picks up its share of the wear-off of new issue select morbidity, which is also provided for in the Level structure, with a 3 year select period.

As shown, the yearly renewal rate increases for the YRT structure tend to average more than twice as large as the corresponding "level" increments, and for original issue ages 45 and over, after only 3 years the total 4th year YRT renewal premium actually exceeds the 4th year level premium in absolute terms.

* Chart appears on the next page

COMPARATIVE HISTORY OF RENEWAL RATE INCREASES
YRT vs. "LEVEL" PREMIUM STRUCTURES:

OTHERWISE EQUIVALENT BENEFITS AND PREMIUM ASSUMPTIONS
\$1000 ORIGINAL DEDUCTIBLE - \$1,000,000 MAXIMUM - 60% LOSS RATIO

ISSUE AGE	ORIGINAL PREMIUM	INCREASE AT EACH RENEWAL			TOTAL PREMIUM
		YEAR_2	YEAR_3	YEAR_4	YEAR_4

YEARLY RENEWABLE TERM RATES

25	\$230.01	\$65.46	\$65.47	\$80.36	\$441.30
30	254.82	79.25	84.03	105.76	523.86
35	313.97	101.51	107.28	134.27	657.03
40	396.02	129.75	137.44	172.49	835.70
45	507.65	170.99	184.74	233.19	1096.57
50	670.79	223.27	236.82	296.16	1427.04
55	865.40	286.47	304.11	381.61	1837.59

"LEVEL" PREMIUM TO AGE 65 RATES

25	\$375.01	\$38.68	\$41.14	\$44.76	\$499.59
30	451.26	46.86	50.14	54.69	602.95
35	551.40	57.32	61.40	66.90	737.02
40	670.44	69.74	74.80	81.42	896.40
45	808.12	84.17	90.43	98.28	1081.00
50	955.71	99.67	107.32	116.52	1279.22
55	1096.60	115.32	125.36	136.84	1474.12

Which series of rate increases would you rather contend with if you were the policyholder, living on a budget? I would rather be in the bottom group. And give it another two or three years, and you may not even be able to afford to be in the upper group. If you're age say 45, your rate is going to be \$1500, \$1600, \$1800 a year, and while it keeps going up, either way I think the increases are much easier to live with for the person on a budget if he is in the bottom group. I didn't know how this chart was going to come out until I tried this, and I was surprised, quite frankly, about how much it really shows the advantage of the level premium basis. I didn't think by the fourth year the annual renewable term rates would have caught up with the level premium rates, but they do, under the scenario that is being used here. So, I think the level premium approach deserves to be thought about a little more, but I think it is only going to work if long-term projection of trend rates, at some reasonable rate not exceeding the ultimate interest rate, is built into the rate calculation, and secondly, if the indexing of the deductible or some other offsetting device of that kind is also built into the program.

MR. LARIMER. The challenges to the actuary involved in individual health insurance are many. As members of the Society of Actuaries we are in a much better position in terms of having a broad knowledge of insuring concepts. One challenge is to borrow and adapt these concepts to apply to the individual medical line. We can use our mathematical skills and creativity to design and analyze varied methods that might solve some of the problems previously discussed.

As a corporate officer I must also be concerned with carrying out our corporate mission, which in shortened form is that we seek to insure a large and broad segment of the population and enable them to get high quality medical care. One segment that we must consider as part of the corporate mission is the individual market, which cannot obtain insurance as easily as the group market. As a corporate officer I must also be concerned with balancing this goal with other corporate needs. One must be willing to consider new alternatives to meet the problems of the individual market. And as an actuary I think I can suggest solutions that a non-actuary just would not consider.

The challenge to an actuary as a regulator will become much more difficult, as new rating systems are introduced. Some of these new methods will require a much more thorough analysis by a regulator.

One challenge to the regulators is to approach these new concepts with an open mind. Regulators should not be looking just for the bad in a new concept.

In the band rating idea some individuals of course will get higher rates because of the band rating. On the other hand, the goal of the band rating is to keep a greater percentage of the low utilizers in the pool that contribute positively to the pool, and therefore keep the overall rates lower. The positive aspects of any new system must be stressed, and explained as clearly as possible to the insurance department.

Another problem for the actuary as a regulator is explaining to the rest of the insurance department and the state government the problems with allowing only limited rate increases with periodic catch-up. In other words, there will be more deterioration of a pool if rate increases of 20% a year are allowed vs. two semi-annual increases of 10%. And this deterioration is

adverse to the long term interests of the public.

On the broad topic of withdrawal from the individual medical market, there are several areas that must be considered.

From the consumer standpoint, the consumer would often times not be able to get coverage elsewhere. One of the key elements that a Blue Cross plan offers to a community is stability of local markets. If this large segment of the population were suddenly not able to have insurance, it would be very disruptive to the local market.

From an insurer's standpoint, it could be a significant loss of membership and also marketplace perception problem on a block withdrawal. If a reentry were planned several years down the road, the hard feelings caused by withdrawal could create hurdles that would be difficult to overcome at reentry time.

Block withdrawal could also be an invitation for government to get involved. At Blue Cross-Blue Shield of Illinois we went to great lengths to roll back the amount of government regulation required for individual medical rate increases. Block withdrawal might throw us back into those days of insurance department skirmishes that we would prefer to forget.

Another aspect about Blue Cross plans is the relationship with the provider community. Offering medical products to a segment of the population that otherwise might not have coverage definitely has an impact toward lowering hospital bad debts. The key relationship with providers has allowed the Illinois Blue Cross-Blue Shield plan to implement containment programs that an insurer without such a relationship would not have been able to develop.

Withdrawing from markets that would adversely impact hospital bad debts could do much damage to the good that has resulted from this unique relationship that Blue Cross has with hospitals.

There are other suggestions to avoid market withdrawal. One is controlling the risk or limiting benefits that can be easily abused. Two that have frequently been discussed are limiting private duty nursing benefits and limiting mental and nervous benefits both on an inpatient and outpatient basis.

Another suggestion is to take detailed steps to analyze claim experience by area. There are extremely large variations in medical costs by area. If such area differentials are not recognized there will be either a gradual or dramatic shift in exposures toward the high cost areas which drive up the rate increases and provide a steady stream of losses.

In summary, the individual medical market is full of pitfalls, but it is my belief that creative solutions can be found to allow insurers to continue to serve this important segment of the population.

MR. BLUHM. I want to ask Paul one question, and then consider questions from the audience. All three of the panelists have been focusing on cumulative anti-selection and anti-select lapsation. What are your thoughts on handling these problems through a pre-funding of premium rates?

MR. BARNHART. I am in favor of attempting to do that. Bill is working with a subcommittee of the Society's Health Section; I am working with a subcommittee of the American Academy, and we are hoping to work together on this and come up with a positive specific proposal to recommend to the NAIC. The idea is that pre-funding would be set aside within each company writing the general class of business affected by this, a little bit like a high-risk pool, to be used to pre-fund closed blocks of policies which are caught up in this anti-select deterioration cycle that we have been talking about. All the business of the class concerned would be contributing to the fund. For example, this could be put into effect by allocating three to five percent of premiums on newly issued business, which the insurer would be allowed to consider as part of his loss ratio. These funds would then be drawn upon later to subsidize closed blocks so that people who have been insured for 10 or 15 or 20 years, have some help, some subsidy.

If we accomplish our goal and the NAIC adopts this, it would be a mandatory type of fund, an extra reserve, that would operate specifically for the purpose of subsidizing deteriorating closed blocks. I think it would be very worthwhile, and in the public interest, if we can come up with something that looks like it will help materially. Again, I do not think it is going to be a solution but it is something that can soften the problem and at least be of some help.

MR. ROBERT C. NUDING. I thought all of the suggestions were very imaginative, but I have one specific question. Mr. Larimer, if I understood you correctly, you were thinking of imposing a band rating scheme on existing pools. Don't you have a legal problem introducing a bigger increase for unhealthy individuals on the basis of their own experience? I like the idea prospectively, where they know in advance that that's a possibility, but how do you overcome any legal barriers to do it on existing pools or did I misunderstand you?

MR. LARIMER. No you did not misunderstand me, we are planning to do this to the existing pool. Our individual contracts outside of the Chicago Metropolitan Area are block cancellable. In theory, we could cancel the whole block, and then invite enrollment into the new pool where we could institute this new mechanism. We have not proposed this to the Illinois Insurance Department yet, and that would be one of our more interesting projects in the upcoming year. I plan to let them know much in advance about our thought on this question, so that we do not surprise them at the last minute and give them deadlines that we are up against.

MR. BARNHART. This idea has been discussed informally with Larry Gorski, the actuary of the Illinois Insurance Department, and he does not appear to have objections from an actuarial standpoint. Conceivably, there might be a legal problem.

I want to point out that people tend to view this as reunderwriting, and defining new subgroups within an original existing pool. I think what we have to recognize is that if we do not do this, the underwriting

characteristics of the pool are changing anyway. The problem is the pool is deteriorating and becoming more anti-select. These people are not members of some kind of constant underwriting pool. The anti-select lapsation is changing that pool, and therefore, by introducing this rating of the existing pool and encouraging the healthy lives to stay, the healthy lives would still be subsidizing the unhealthy lives. So I think the effect of this is really helpful to the unhealthy members in the pool in the long run, even though they could be getting some upward rate adjustments within the scale that Charlie was talking about. If you do not do anything, the whole pool just goes more and more anti-select and we have seen that happen.

I happen to be the consultant to the association in question that represents the consumer, and their board is strongly in favor of this because they have seen the anti-selection drive the rates for this pool to unaffordable levels; to some of the members on the board this is their last hope. They hope this will work and that it may prove to be a way of saving what is simply becoming an unmanageable pool of anti-select survivors.

MR. BLUHM. I would point out that I have also been recommending a similar thing for use with multiple employer trusts who undergo the same sort of anti-select lapsation, and there are similar regulatory problems with that in some states that limit experience rating on small groups. Are there any other questions?

MR. BRIAN R. LAU. I will make a couple of short comments. First concerning the banding, I hope you go ahead and try it, because I would like to see something work. I am not terribly encouraged, because I think what will happen is you will just isolate the impaired lives even more in a higher rating class. I do not know if you will be able to give big enough discounts to the healthy lives to keep them.

Secondly, on the increasing deductible, I would again like to see it tried. We might be willing to try it ourselves, but I can not be too encouraged, because the insureds will perceive this as both a rate increase and a reduction in benefits.

Thirdly, on the question of a long term projection level premium concept, I would like to see it implemented. I am concerned about this method because of the substantial pre-funding required in long term projections, which would call for cash values. Perhaps universal major medical policies might be what is called for.

MR. BARNHART. As far as trying to index the deductible, I would like to mention that this is being tried, and has been tried. There are several contracts on the market; I think maybe the one Noel is talking about is one example. I believe that Mutual of Omaha and Bankers Life and Casualty have programs on the market involving some indexing of deductibles. The group that Charlie talked about is the Illinois Health Improvement Association, the downstate version of the Blue Cross direct-pay block of people. The deteriorating portion of this group is the under 65 group. What happened was that in 1982 a number of changes had to be made in the rating structure, and some people had enormous rate increases; some as high as 270 percent. The pool dropped from about 75,000 subscribers with dependents down to, currently, about 30,000. We have been using this concept of indexing deductibles for two years now, and it seems to be helping substantially.

The program comes up for either benefit adjustment or rate adjustment every six months. In effect, it is renewal rated every six months. What we have been doing for two years now is when it comes in on January 1st, we have been adjusting the benefits and holding the rates constant, and then on July 1, half-way through that calendar year, it gets a rate increase, so it is a different approach. It is like the 15 percent indexing of both benefits and rates.

The experience has stabilized, the lapse rate has greatly decreased, and the pool, I think, is in relatively better shape. It at least is not continuing to go downhill at such a disastrous level. I mentioned that the board of this organization is very much in favor of the banding that Charlie has described, experience rating banding, if you want to call it that, which is a form of individual experience rating. They cannot wait to see the banding put in place. They are hoping the program will survive through the indexing process long enough to get the experience rating concept working. Everytime we have seen them, they want to know how soon are we going to start doing this. There is one thing that I am afraid of and that is that on third and fourth time around, these deductibles may have to jump so far that it is going to be a problem. The first year the deductible went up from 200 to 300 dollars, the second year it went from 300 to 650 dollars, and even with that kind of a jump, we do not seem to be losing too many of the members. Now the problem is what is going to have to happen next January 1st? Is 650 going to have to go to 1500, or what? So, there is an obvious question; how long can you keep this up before you begin to once again provoke the anti-select deterioration? That is why the group is so anxious to see this band concept put into effect just as soon as possible.

MR. BLUHM. In answer to your thought on people perceiving it as taking benefits away, I had approached a similar situation once in a stop loss policy. Instead of stating the deductible or trigger point as a flat dollar amount, it was expressed as a multiple of expected claims. The multiple did not change even though the dollar amount increased each year. When you index the deductible, if you state it as a multiple of the index amount, I think you have a lot less of a problem of people perceiving that they are having something taken away.

MR. THOMAS J. STOLBER. I would like to comment on the practicality of instituting automatic deductible and coinsurance increases on individual policies. We had seriously considered such an approach in the past and rejected it on the basis that the healthier policyholder could very well be surprised by the lack of benefits his policy actually paid when he did first file a claim, 7 to 10 years from issue. It is not unusual to expect a healthy policyholder with a \$500 deductible policy to go that long without a claim given that annual frequency of claims is only around 10% to 12%. The \$500 deductible could easily be \$2,000 by claim time, and this awakening certainly, without clear regular communication, would encourage the healthy policyholder into lapsation; the very opposite of what we are trying to achieve. Would it not be better to devise a mechanism to encourage the healthy policyholder not to lapse? Someone briefly mentioned a "Universal Life" health policy. Maybe the level premium policy with cash surrender values is more the appropriate answer.

MR. ABKEMEIER. We think an important part of indexing is packaging everything together. When I was using an objective measure such as the CPI, I changed both the deductible and the room benefit limit. The customer can see the bitter and the sweet at the same time, which will help in the acceptance of the package. The policy changes are on his policy page and on the communication letter, so he should be aware of the changes, but it may not hit home until he has a claim.

MR. BLUHM. I am afraid that we have run out of time. I want to thank all the panelists for participating in this session.