TRANSACTIONS OF SOCIETY OF ACTUARIES
1968 VOL. 20 PT. 2 NO. 58

INDIVIDUAL LIFE AND HEALTH INSURANCE

I. *Individual Health*

A. New Benefits and Provisions

1. What new types of provisions have been developed to provide guaranteed insurability or guaranteed increases in benefits to combat inflationary tendencies in medical coverages and increases in earnings in disability coverages?
2. What new extensions of coverage are being developed (e.g., rehabilitation benefits, extended care coverage, dental benefits, outpatient benefits)?
3. How well have the new benefits been received by the sales force and the public?
4. What sources of data or information are available to determine premium rates for the new benefits?
5. What actuarial and administrative problems arise as a consequence of these new benefits?

MR. E. PAUL BARNHART: First of all, for the benefit of any of you who may not be acquainted with the type of provision to which question 1 refers, let me describe briefly just what such a provision does. Let us use hospital insurance as an example. Such a provision will guarantee to the policyholder the right to increase his daily room maximum in the future, at certain times and subject to certain limits. For example, he may originally purchase a $25 per day plan; with this he buys the option of increasing the daily limit by $5 per day on the third, the sixth, and the ninth policy anniversaries, without submitting evidence. Thus, if he exercises the option on each of the three dates, he will have a $40-per-day plan in force as of the ninth anniversary.

Similarly, such an option may confer the right of future increase in the monthly income under a disability policy or in the surgical maximum under a surgical benefit. It is equally applicable to major medical coverage, when this coverage involves inside limits, such as a daily room limit and/or a surgical schedule.

It will be evident that such a provision is of considerable potential importance in fulfilling the goal of long-term adequacy in individual health coverage. Many of you are familiar with the problem of obsolete coverage, such as hospital policies purchased ten or fifteen years ago that provide no more than $8 or $12 daily room coverage. The guaranteed increase or "insurability" provision can be of considerable value in allevi-

ating this problem, in reducing the need for complete replacement, and in solving, in part, the problem of the risk that the insured has developed an uninsurable health history since original issue.

The provision can take a number of forms. First, it may be an optional rider, purchased at an extra premium, or it may be packaged into the plan, thus assuring that all policyholders have it. I strongly favor this latter approach.

Second, it may be in the form of an actual option, which must be elected by the policyholder at the proper times, or it may take the form of an automatic periodic increase. For example, a hospital policy originally providing a $25 daily limit might provide for an automatic increase of $2 in the daily limit on each of the first five policy anniversaries, eventually leading to a $35 daily limit.

A third variation is the "absolute," as distinguished from the "conditional," type of option. The best example of this is in disability insurance. For example, an original $500 per month policy may provide that on the third anniversary the policyholder has the absolute or unconditional right to increase the monthly income by $100, regardless of his earnings at the time. Under the conditional form, he may have the right to increase by $100 on either or both the third and sixth anniversaries, provided, however, that his earnings at those times qualify the increase under the company's earnings rules. I regard the conditional form as far more sound, and I think more liberal option amounts can be provided under it. One formula, for example, which I have seen and which I believe will prove to be sound is that of including an option amount equal to the original income purchased, subject to the limitation that the sum of the two may not exceed the company's issue limit. Any absolute option as liberal as this would, in my opinion, be entirely unsound, since the policyholder could increase coverage above his own level of earnings.

The number of available option dates may range anywhere from only one, say the third or fifth policy anniversary, up to five or more spread over fifteen or more years. I have seen one option (used with hospital and major medical coverage) which limits the aggregate amount of option but permits option dates each third anniversary for an indefinite period into the future and also within sixty days following a change of residence to a new state or county. The value of this latter election opportunity is obvious, since the move may put the policyholder into an area of substantially higher medical costs.

One other characteristic of guaranteed increase provisions that may be mentioned is the minimum increase rule. Since it is obviously im-

practical to permit the election of very small increases, such as 50 cents in a hospital daily room limit or $10 in disability monthly income, a well-designed option will restrict any one election so that it must equal or exceed some minimum increase, such as, say, $2 of daily room limit, $100 of surgical maximum, or $50 of disability monthly income.

Consider now question 3: what has been the reception given to guaranteed increase options by the sales force and the public?

From what I have been able to observe, while the idea has been received favorably, both the sale and the exercise of these options have been somewhat indifferent. When the option is itself in the form of an optional rider, it seems to be added on a rather small fraction of sales: 15 per cent or often much less. I suspect that this may result from a tendency on the part of many agents to consider the option and its premium determination a "complication of the sale." I have not been able, thus far, to obtain any actual statistics on the incidence of exercise of the option, but my impression is that it is rather spotty.

I am inclined to the view that success may be achieved only when intensive promotion and follow up with the sales force are carried out. Few policyholders, relatively, will initiate their own exercise of an option, and those who do are likely those who have experienced inadequate coverage under claims. The importance of the option must be constantly emphasized to the sales force, and its exercise must be made worth their attention, through payment of first-year commissions on the increase in premium, through special production volume credit, or through similar inducements—all of which, of course, increases the total cost of the option provision.

With regard to sources of data for determining premium rates, there appear to be essentially none thus far. Some companies should have some information available, now or in the near future. The earliest development of the increase option in health insurance, so far as I know, was in 1961, when one company began marketing an optional option rider along with an inside limit major medical contract. The company did sell a substantial volume of this, so after seven years we may hope that some experience has begun to emerge. Short of actual experience data, it is possible to develop the "expected" costs under a range of low-cost to high-cost assumptions. On several occasions when I have done this, it was interesting to discover that the extreme assumptions led to practically identical aggregate net cost; that is, the assumption of high incidence of exercise combined with little antiselection tended to produce about the same cost as low incidence coupled with severe antiselection. The catch, however, was that moderate incidence with moderate antiselection ap-

peared to produce considerably greater total net cost. So at least three sets of assumptions, at the ends and in the middle of the possible spectrum, would seem necessary to develop reasonable estimates of the possible net cost.

A number of actuarial and administrative problems arise. The first is the matter of a suitable notice to the agent and policyholder that an option date is coming up. My experience in seeking state approvals for several options has been that at least two or three departments have expressed willingness to consider approval of increase options only if the company gives assurance that it will provide adequate notice of each election date, which seems entirely reasonable. The notice may also serve as the form on which election of the option is indicated by the policyholder.

Another requirement, and one that can be very troublesome if the record system is not readily adaptable to it, is the need to maintain separate experience on coverage elected under the option. At least two states also require this on the part of the filing company, and it is certainly desirable, in any event, to obtain statistics toward determining the true cost of the provision.

One question to resolve is the method of effecting the increase. Will it be by policy amendment, by reissue, or by issue of a second contract? One of my larger clients, who uses an option with both medical and disability coverage, effects the increase by policy amendment. The statistical records are created by tape record trailers which, in effect, treat each increase as a new increment of coverage with its own issue date and age.

Several questions pertaining to claim administration have to be answered. For example, how does the option relate to conditions that preexist an election date, or to a claim actually in progress on an election date, or to a condition for which maximum benefits have already been paid out prior to an election date? All these matters require resolution on a basis that is equitable in relation to the purpose of the option and practical as to claim administration.

CHAIRMAN WILLIAM H. SCHMIDT: MONY has had a purchase option rider since 1966. It is an option to purchase $100 additional monthly income at 25, 30, 35, and 40, subject, however, to an earnings requirement. It is available only to male insureds in Classes 4A, 3A, and 2A—on a base policy of not less than $300 monthly.

Approximately 4 per cent of those eligible for the rider purchase it, and it is too soon to give any experience either on rates of election or morbidity after election. So far, our rates seem adequate.

MR. BARNHART: Let us turn to question 2, "What new extensions of coverage are being developed?"

1. *Rehabilitation benefits.*—Rehabilitation provisions in health insurance have for the most part been taking one of two forms—one under disability coverage, the other under medical.

In disability policies, the usual approach to rehabilitation is to expand the definition of total disability so that disability benefits will continue to be payable, for a limited time, even though the individual has resumed gainful employment, if such employment relates to some organized program of rehabilitation. One example of such an extension of the total disability definition is as follows:

> If, at the end of a period of compensable total disability, the Insured becomes gainfully employed as a participant in an employer sponsored, government sponsored, or similar organized vocational rehabilitation program, so that he ceases to qualify as totally disabled (as herein defined), he will continue to be considered totally disabled and qualify for such benefits as would continue to be payable for total disability under this policy, but only for such period as is reasonable in the sole judgment of the Company, and in no event for longer than 12 months while so employed.

At least one state will not approve the "sole judgment of the Company" qualification in the above definition, and the usual alternative in such case has been to use a shorter limit of extension, such as six months, not qualified by any right on the part of the company to terminate benefits.

As to the alternative form of the rehabilitation provision, a few major medical policies on the market have incorporated an expense benefit for rehabilitation, under which "necessary expenses" of rehabilitation other than medical are covered, up to some limit, such as $1,000, and for a period of years, such as five, following the injury or sickness causing the impairment involved.

2. *Extended care benefits.*—The "extended care" benefit has been around for a number of years in the form of the "convalescent home" daily benefit frequently included in major medical contracts, under which a reduced daily benefit is payable, up to from thirty to ninety or more days, for convalescent-home confinement immediately following some required minimum period of hospital confinement.

Since the enactment of Medicare, there has been some tendency to change the terminology to "extended care facility," along with a definition at least partly modified in the direction of that used in the Medicare law. Associated with this change has been some tendency to liberalize the coverage, particularly as to the maximum period of days covered.

3. *Intensive care benefits.*—Another relatively recent extension of coverage has been the development of some form of specific coverage of daily surcharges made during confinement in an intensive care facility. Originally, some major medical contracts specifically covered this as part of the miscellaneous hospital expense, but the fact that the charge is usually daily, and is often quite high, has led to the practice in several recently developed contracts of providing a special supplementary daily benefit, sometimes for a limited number of days. For example, the contract may provide, during intensive care confinement, up to double the regular daily room limit for from thirty to ninety days, or occasionally without limit (other than the maximum benefit).

4. *Dental coverage.*—Dental policies are not particularly new in the individual health field, but they have never been particularly popular. The typical dental policy has been a scheduled one, usually with very restricted limits. This coverage is difficult to underwrite and hard to design so that significant coverage can be soundly offered.

A recent innovation that, in my opinion, shows considerable promise, is that of expanding comprehensive or major medical policies to include dental coverage. The advantages of this approach are twofold. First, since the dental benefits are packaged in with substantial medical coverage, the likelihood of dental antiselection is reduced, since the sale is usually one involving a larger premium and the buyer is likely to have broader protection objectives in mind than only dental coverage.

Second, if the dental benefits are more or less integrated into the sickness coverage, a broad and logical comprehensive contract can be the result, under which dental coverage can be provided, in a more economical manner, as a supplementary item of coverage, than is the case when the attempt is made to market dental coverage separately.

Even when it is provided as an extension of comprehensive coverage, there must be prudent restrictions in the dental provisions if antiselection and undue cost are to be avoided. Among the desirable restrictions to be considered are the following· initial waiting periods (of as long as twelve months); special deductibles applying to dental expenses; exclusion of some forms of expense, such as orthodontia; and probably some inside maximum on dental benefits. I have become increasingly convinced that such integration of dental coverage into comprehensive medical contracts is the only sound and workable method of providing dental coverage on an individual policy basis.

5. *Outpatient benefits.*—Outpatient benefits for emergency accident expense are, again, anything but new. What is perhaps of relatively recent development is the expansion of the outpatient benefit to include diag-

nostic X-ray and lab benefits for sickness as well. This has been commonplace in the group field, but, at least until recently, has been fairly rare in the individual field. Usually a low maximum limits the liability, such as $25–$50 (or three or five times the daily room limit) per cause or, alternatively, per policy or calendar year.

Let me now comment briefly on question 3, the reception of these benefits by the sales force and the public, mainly by way of "impression." My impression is that the extended care and intensive care benefits are popular and very well received by agent and buyer. Dental coverage gets an initially enthusiastic reaction from agents, but their ardor cools somewhat when they see the extent of the restrictions usually built in. Some prefer not to have it at all than to try to explain and sell all the limitations usually thought essential by underwriter, actuary, and claims administrator. I am not sure that agents have really paid much attention to rehabilitation provisions, and some of them are lukewarm about the low maximums generally applied to A and S outpatient benefits.

As to sources of data (question 4), some data are available from group sources (e.g., outpatient, dental). Information of some use to the estimation of dental and extended care benefit costs can be obtained from federal sources, such as Public Health Service surveys. Some data on the extent of dental needs, fee levels, and utilization of dental services are obtainable from the American Dental Association. All of these must be used judiciously, since they may or may not be appropriate for construction of expected claim costs under individually underwritten contracts.

A number of actuarial and administrative problems are obvious. Again, the problem of adequate statistical records and the separation of statistical experience relating to the new provisions must be resolved, as well as the question of whether, and to what extent, the extensions should be taken into account in valuing policy and claim reserves. Extended care and outpatient benefits raise the actuarial question of whether it is sound to assume that any portion of the cost of the expanded benefits can be offset by reductions in expected hospital claim costs. (I am inclined to the conclusion that some offset may be justifiable but less than one might have hoped.)

New items of claim proofs and statements may become necessary, especially for rehabilitation and dental benefits. Dental underwriting standards may need to be established, unless a long waiting period and other restrictions are deemed to be potent enough to ignore specific underwriting of dental health. (I have preferred to attempt this approach and avoid dental underwriting of any extent.) Other new claim administrative problems may emerge. For example, under one comprehensive con-

tract that I developed for a large client company, we eventually found it necessary to construct a fairly comprehensive dental services relative value schedule for the guidance of the claim department.

MR. WILLIAM A. HALVORSON: A new development in extended care coverage is the provision of this coverage without the requirement of a prior hospital confinement. Blue Cross is a primary sponsor of this and requires only that extended care be a medical necessity and that admission to an extended care facility be recommended by a physician.

Another new development, which started in the West and has moved into the Midwest, is the return of premium benefit under individual disability income and hospital policies where, if the loss ratio on an individual policy is less than, say, 20 per cent, or if there are no claims for ten years, the policyholder gets back all or a part of his premiums. Agents are very enthusiastic about this benefit. The experience of one company with it has been that after the first two or three years there were almost no claims. Apparently, people began to regard the benefit as an endowment after this period of time and were afraid to submit claims. Reactions of this type can lead to the policyholders' becoming disenchanted with their insurance protection, since, in spite of their reluctance to submit claims, they have to continue paying premiums to protect their investment.

Are these policies in the best public interest? If they are sold, should they not contain cash values and death benefits and be recognized as actually being life insurance? It is my opinion that the endowment feature should be separated from the health insurance and be recognized as life insurance for statutory purposes.

MR. BARNHART: I question whether some of the rates being charged for return-of-premium coverage are really sound. In addition, I strongly question the legitimacy of the motivation that often lies behind the benefit, in that the company expects the benefit to discourage the submission of claims after the first year or two, because the policyholder will be counting on qualifying for premium refund at the end of the ten-year period.

What bothers me most acutely about this provision is that in the last twelve months or so I have seen a number of instances of its use with disability income coverage, even with long-term elimination periods of 90 or 180 days. Typically, the company will charge 30–40 per cent to add the return-of-premium rider. Perhaps this is adequate if the rider will really discourage submission of any and all claims. But how likely is that,

under 180-day elimination-period disability coverage? No claim commences in any case until disability has persisted for 180 days, and, if the insured has been disabled that long, he is likely to need the money; furthermore, such a disability has a relatively high probability of persisting much longer. I just cannot see such a potential claimant deciding not to submit a claim because he hopes (several years on down the pike, mind you) to collect his return of premium.

I developed tentative premiums for one client to add return of premium to a 180-day elimination disability plan and found that the premium charge would have to be at least 175 per cent of the basic premium, assuming no offsetting reduction in expected claims, simply because the probability of *no* claims over the ten-year period involved was about 96 per cent. If my calculations were anywhere near correct, a charge of 40 per cent would obviously be disastrously insufficient.

This benefit scares me, if it is used with disability income, and I feel convinced that much of it is being written at woefully inadequate rates. An adequate rate would undoubtedly look too prohibitive to sell, on anything over approximately a 30-day elimination period. I think, therefore, that the benefit is impractical on anything but first dollar or low deductible medical coverage or on short elimination period disability income coverage (30 days or less).

B. Underwriting and Policy Changes

1. What new statistical experience has been developed on substandard business? What general impairment classes are proving to be susceptible to underwriting, and which are proving to be most troublesome?
2. What is the current experience of the relation of earnings to insurance provision? Is the use of this provision increasing?
3. What types of rules are currently in use for policy changes under level premium contracts with a reserve equity?

MR. E. PAUL BARNHART: Except for some informal comment in some of the discussions, I am not aware of any substantial or significant study's having been made available on substandard health insurance experience.

About twelve years ago I worked on a study which followed substantial policy experience by such very broad categories of impairments as respiratory disorders, malignancies, heart conditions, and digestive disorders. The outstanding features of that particular study were that prior histories of respiratory disorders led to very bad subsequent experience, the worst of all categories. History of malignancy was the second most adverse category. Prior heart conditions, on the other hand, did not seem to lead

to adverse subsequent experience, since this category was the most favorable of all.

I think that a study of this subject would be an excellent topic for a paper for the Society.

MR. WILLIAM C. BROWN: The over-all experience in my company on substandard business has been satisfactory in relation to the extra premiums charged. However, on cases with a history of back impairments, particularly impairments of the lower back, the experience has been in excess of the premiums charged. In fact, with some of these histories, even though there supposedly had been recovery, it was almost impossible to determine an adequate extra premium with which to provide health coverage.

CHAIRMAN WILLIAM H. SCHMIDT: We have used, quite successfully, the so-called split-elimination-period approach for some impairments and have found it much preferred, by the field and applicants, to an extra premium. For example, if an application for a disability income policy with a fourteen-day elimination period contains a history of chronic bursitis, we may well issue the policy standard for all illnesses except chronic bursitis. However, if a disability occurs as a result of bursitis, an elimination period of 60 (or 90) days might be required before benefits commence.

MR. BARNHART: On question 2, I am inclined to feel that use of the "relation of earnings to insurance" provision is increasing. Nevertheless, there are still many people in the industry who do not have much faith in it. For one thing, it is not mandatory and is of little value when one contract covering the same risk contains it while another does not.

Probably most underwriters and claims people regard this provision primarily as a defense against extreme events, such as might occur in a very major recession or depression. I do not know of any case in which the provision has actually been applied in a particular claim situation.

In regard to question 3, probably the most common rule in use for policy changes in health insurance is simply to charge the premium for the new plan as of the attained age of change, even though this forfeits whatever "reserve equity" may have built up under the original level premium contract.

However, my advice to clients has been to adopt rules that preserve such reserve equity for existing policyholders to the extent reasonable and practical, and I am sure that a number of companies are following this

practice. For one thing, when this is done a clear advantage lies with the original company (as to cost of the new plan), so that there is less likelihood that the policyholder will simply end up lapsing and buying a competitor's plan.

I normally recommend an approximate rule that derives the new premium directly from the rate tables, thus avoiding special actuarial calculation of any reserve or asset fund. The rule also avoids any lump-sum adjustments and simply arrives at a modified level premium thereafter payable for the new plan. The change can therefore be handled without much difficulty by the regular policy issue clerical staff.

By way of describing the formulas applied, let me define five terms:

${}^{o}P_{o}$ = Gross premium for original plan at original age.
${}^{o}P_{a}$ = Gross premium for original plan at attained age.
${}^{n}P_{o}$ = Gross premium for new plan at original age.
${}^{n}P_{a}$ = Gross premium for new plan at attained age.
${}^{n}P_{c}$ = Gross actual premium payable for new plan after change.

The simplest situation occurs when the change is to a higher-premium plan (that is, measured as of the attained age, the premium is higher). Then the rule is

$$ {}^{n}P_{c} = {}^{o}P_{o} + ({}^{n}P_{a} - {}^{o}P_{a}) . $$

This rule provides, at least in theory, for first-year commissions on the increase. The rule also assumes that expense and commission loadings are reasonably consistent under both plans.

If the change is to a lower-premium plan, then complicating factors must be considered, such as the status of the asset share fund, and so on. While practical considerations demand a simple rule, at the same time the company should be reasonably sure that it is not sustaining an actual loss on the transaction. The rule I have used here is

$$ {}^{n}P_{c} = {}^{n}P_{a} - k({}^{o}P_{a} - {}^{o}P_{o}) , \quad \text{but not} < {}^{n}P_{o} , $$

where k is an adjustment factor determined by the expense and asset share considerations and would normally fall near 0.5. The purpose of the minimum limit is to make certain that at least some premium remains payable (at least where the rate is not noncan—that is, not guaranteed) and, further, it assures that the rule cannot result in some adjusted rate so small as to be uneconomical to handle. The premium for the new plan as of the original age seems to me to be a reasonable minimum (although, in fact, it is really a rather arbitrary one).

It must be recognized that rules such as those given, which produce modified level premiums, lead to complications in policy reserve valua-

tion. It is undesirable to become involved in special reserve computations, so in this case I have usually recommended an approximate method that places the changed policy into the regular valuation routine. This is simply to determine which age in the regular rate table for the new plan gives the rate closest to ${}^{n}P_{c}$ and then to assign this artificial issue age, and the associated issue year, to the new policy. For example, suppose that the original plan were issued in 1963 at age 30 and change in 1968 to a higher-premium plan results in a premium of $167. The rate table for the new plan shows the following:

Issue Age	Premium
32	$165
33	168
34	171
35	175

Age 33 gives the closest rate; therefore, for valuation purposes, the new policy is regarded as issued at age 33 in 1966.

This technique also suggests a method for keeping the premium itself within the regular rate table. After applying the formula, leading to $167, the rate table can be referred to and the nearest premium selected, which again would be $168, so that even the premium fits in with the rate table. This is convenient where the premium rates themselves have been stored for computer usage. In this example, if the policy record shows issue age 33 and issue year 1966, for statistical purposes the company may still wish to record 1968 as the "change year," since presumably the policyholder enters the new plan exposure as a newly select applicant with fresh evidence of insurability.

MR. ANTHONY T. SPANO: When we have a decrease in coverage at any time or an increase in coverage during the first policy year, the premium for the new plan will be equal to the original age premium for the new plan.

When we have an increase in coverage after the first policy year, we add to the premium the insured has been paying the difference in premium between the new and old plans at the attained age. However, in no event will the new premium be less than the premium for the new plan at the original age. A few tests involving reserve calculations showed us that this rule generally did a fairly good job.

For valuation we treat the changed policy as if it had originally been issued on the changed basis. The small volume of changes encourages us to continue this practice, at least for the present. Also, the higher-to-lower and lower-to-higher changes may partially balance out.

MR. STEPHEN N. STEINIG: The New York Life Insurance Company uses rules for policy changes on monthly income disability policies which are simpler than the rule previously discussed. Changes in benefit period are brought about by replacement; requests for such changes are infrequent. The following rule applies to changes of elimination period both when the change is from a higher to a lower premium form and vice versa.

The premium after the change is the premium for the new coverage at the insured's original issue age. When the change is from a lower to a higher premium form, reserves are calculated for both the old and new coverage, based on the original issue age and issue date. The insured is charged 103 per cent of the difference in reserves. Because changes are generally requested in the early policy years, the charge is generally small. We have not experienced any policyholder resistance to paying this charge.

In subsequent valuation of a changed policy, we quite properly treat the new policy as though it had been issued to the insured at his original issue age and on the original issue date.

II. *Individual Life*

A. "Guaranteed Insurability"

How popular has the so-called guaranteed insurability option proved to be at the point of original sale? What are the underwriting and actuarial considerations involved in setting age and amount limits? What percentage of the options has been exercised as they fall due? What have been the mortality experience and the waiver of premium disability experience under policies issued under the option?

MR. MENO T. LAKE: We attempted to determine what percentage of our eligible policies has carried the guaranteed insurability rider during the past five years. Although every policy issued under age 40 to standard risks would not be eligible for this rider, the vast majority of them would be. Using this as our base, on about 30,000 new policies issued per year, we had only about 3 per cent carry this option five years ago. This percentage has increased steadily, however, to about 8 per cent last year.

Even though these two percentages are both lower than the true figures would be, I feel that the important point is that the benefit is being used considerably more as the agents have become more familiar with it.

On the subject of actuarial and underwriting considerations, in setting up the age and amount limits, I would like to offer the following suggested rules as a starting point for discussion:

1. Keep age and amounts of options within nonmedical limits, because it may have been a long time since the last evidence of insurability had been submitted by the time an option is being elected.
2. Limit the period of election to the shortest practical period at each option date.
3. Do not offer it when applicant is in military service.
4. At Occidental, each applicant is only offered one policy with such options; the option must be attached at issue or within five years of issue, except that it may be added until age 21 on juveniles.
5. For expense reasons, the option is not granted on policies of less than $5,000.
6. To determine nonmedical limits, we add the amount of one option to the basic amount.
7. Occidental's option permits the use of war clauses on opted policies if we are attaching them to other new issues when the option is elected.
8. We have one over-all limit of $150,000 for all options on any one life within our company.

Next I would like to throw out a question: How can the maximum amounts and age limits for total future options be determined? If the total options are, say, $75,000, why not offer up to that amount at any option date, since it is bound to be at a younger age?

We had to estimate the amount exposed at time of election but, based on these estimates, between 4 and 5 per cent of the eligible options were elected. An item of interest was that the largest percentage of elections was at option ages 25 and 28.

These results again are not conclusive and, in fact, raise these two questions in my mind:

1. If the younger ages are more inclined to pick up their options (when they are less expensive), why not have a larger amount available at the younger ages instead of the same amount at every option age?
2. Also, 4 or 5 per cent does not sound very high to me as the number of people who exercise the option, but what is a satisfactory percentage to assure an adequate spread of risks?

Until recently, we have not granted the waiver of premium benefit on opted policies, so we have no experience in this area. However, on mortality, I can say that our experience has been excellent—we have not yet had a claim!

MR. WALTER N. MILLER: Some of the details on the proportion of policies eligible for issue with New York Life's policy purchase option rider, which were actually issued with such a rider, are shown in Table 1. These figures are based on a study of two months' paid issues earlier this year, involving about 30,000 such eligible policies.

As Table 1 shows, on an over-all basis about 20 per cent of our eligible policies were issued with the P.P.O. rider. The rider is considerably more popular in connection with whole life than it is with other plans. It is also much more popular on male lives than it is on female lives and much more popular at the younger issue ages than at the older ages. Thus about 50 per cent of our eligible whole life policies issued to males at ages under 15 included the P.P.O. rider. The very pronounced decrease in popularity of the rider at issue ages 30–37 may reflect the reduced number of option dates available at these issue ages.

Concerning the underwriting aspects of setting age and amount limits, I note that relatively few companies have their first regular option date before age 25. This may reflect some concern over the possible additional military hazard involved in an earlier option date. Speaking for a company with a regular option date at age 22, I think that this matter is not a great problem.

A question that has both underwriting and actuarial aspects is whether guaranteed insurability coverage can be provided on substandard risks. To my knowledge, this is presently done by very few companies, and it

may well be that practical and administrative considerations are also important ones here. In any event, as we all know, the key to pricing guaranteed insurability coverage is evaluation of differences between mortality select from the original issue age and that select from the option age. If, as indicated by some studies, the effect of selection on rates of substandard extra mortality is relatively small, there would be little extra cost involved in providing guaranteed insurability coverage to a substandard risk, using regular age and amount limits, as long as it is specified

TABLE 1

PROPORTION OF POLICIES ELIGIBLE FOR ISSUE WITH P.P.O. RIDER WHICH WERE ACTUALLY ISSUED WITH SUCH RIDER

PLAN	ISSUE AGE					
	0–9	10–14	15–19	20–29	30–37	0–37 Combined
Whole life:						
Male	47%	55%	38%	26%	6%	26%
Female	14	13	11	7	2	8
M and F combined	36%	44%	33%	23%	5%	23%
All other plans:						
Male	27%	31%	29%	19%	3%	17%
Female	8	7	7	4	2	4
M and F combined	19%	22%	15%	15%	3%	13%
All plans combined:						
Male	42%	52%	36%	24%	5%	23%
Female	12	12	9	5	2	6
M and F combined	31%	41%	30%	20%	4%	20%

that the option policy will be issued subject to the same underwriting classification as the original base policy.

Another actuarial consideration is the indicated very steep increase in the cost of providing a guaranteed insurability benefit at ages over 40. In this connection, it is interesting to note that, since guaranteed insurability provisions were first introduced about ten years ago, many companies have significantly liberalized their provisions on the maximum amount of insurance under an option policy, but there have been almost no moves toward providing option dates after age 40, which has been the typical maximum option age right from the beginning.

Table 2 shows the trend over the past few years in our basic election

rate experience. On an over-all basis, this ran in the 10-12 per cent range through 1964 and has since increased.

Not reflected in the data in Table 2 are option policies issued at other than regular option ages under our "marriage and stork" options. Such issues have generally comprised between 10 and 15 per cent of our total option policy issues.

We still consider our mortality and disability experience on option policies to be statistically insignificant and are looking forward with interest to the intercompany study of mortality experience, which we understand is being prepared by the Society.

TABLE 2

Option Age	Percentage of Options Exercised at Regular Option Ages		
	1964	1966	1968 (First 6 Months)
22	8%	12%	14%
25	11	13	15
28	13	14	15
31	15	16	14
34	18	19	19
37	24	26	25
40	30	36	35
All ages	12%	15%	16%

MR. PAUL D. YEARY: Our experience had been that 5 per cent of the options falling due were being exercised until we started sending policies automatically to the agent on the option dates. Now 15 per cent of the options are being elected; this increase has been sustained for over a year now.

One of many questions which had to be faced was how to treat the insured who wanted a larger policy than that provided under the option and wanted to combine the option policy and additional policy in order to take advantage of the quantity discount factor. We decided to tell the insured that, by exercising the option, the contestable period on the new policy runs from the original policy day but that under the combined policy approach a new contestable period would start. He would have to decide which he wanted most, quantity discount or the protection he would get in exercising the option.

If you adequately price the option, I do not think that you have to

worry about whether enough people exercise it to obtain a spread of risks. The premium for the option covers all the additional risks even if only all the substandard cases exercise the option.

MR. ROBERT C. TOOKEY: Remember, this is a sales tool. One company that writes only in a student market sells a standard package which includes the guaranteed purchase option. Their election rate has been 22 per cent.

If the option policy is taken, this particular option provides for a return of the option premiums, the premiums paid since issue in the case of the first option date, and those paid since the last previous option date in the case of subsequent option dates. Thus there is a significant incentive to use the option.

MR. LEE H. KEMPER: The popularity of the guaranteed insurability agreement at the point of original sale is best demonstrated by the number of such agreements issued with policies on which the agreement is

TABLE 1

PERCENTAGE OF POLICIES ELIGIBLE FOR GUARANTEED INSURABILITY AGREEMENT WITH WHICH GIA WAS ISSUED

Issue Age	Female	Male	Total
0.....	18.1%	46.7%	33.7%
1– 5.....	16.8	63.3	47.5
6–10.....	24.4	82.6	64.4
11–15.....	38.4	82.1	69.7
16–20.....	29.4	71.4	59.8
21–25.....	13.7	28.4	26.1
26–30.....	3.2	12.4	11.1
31–35.....	1.3	2.9	2.7
Total.....	19.5%	38.7%	34.5%

available. The Acacia guaranteed insurability agreement is issued to both male and female lives at ages 0–35 and is available on permanent plans of life insurance except for endowment policies that mature prior to age 40. It is also available on the term to 65 and the term to 70 plans.

During 1967 we issued 2,627 guaranteed insurability agreements for an option amount of insurance of $20,300,000 for an average of $7,727 per agreement. Based on the number of policies on which the agreement was available, 34.5 per cent of such policies were issued with the guaranteed insurability agreements. On female lives, the percentage was 19.5 and on male lives 38.7. A breakdown of the percentages by issue age is given in Table 1.

The popularity of the agreement appears to be greatest at issue ages 6-20, with the demand tapering off at ages above 20. As would be expected, the demand for the benefit is greatest on policies issued to males.

In 1966 there were 704 policies on which the GIA had previously been issued and on which a regular option to purchase additional insurance became available. The option to purchase the additional insurance was exercised on 119, or 16.9 per cent, of these. In 1967, 183 options were exercised, for a total of $1,769,000 insurance, or an average of $9,600 per policy. The options exercised in 1967 were distributed as follows:

Regular options.....	134
Marriage options.....	23
Stork options.....	21
Special marriage options	5
Total.....	183

MR. LARRY R. ROBINSON: One of the previous speakers, Mr. Yeary of the Western and Southern, has indicated that his company has had some degree of success with the so-called automatic issue under its guaranteed insurability rider. I think it appropriate to point out that small and medium-sized companies should give serious consideration before adopting an "automatic issue" program.

At the State Life we initiated an automatic issue under our guaranteed insurability rider for a trial period of one year. This was commenced in 1967 and was done at the urging of our agency force. Our election rate prior to adopting the program was slightly over 7 per cent.

At the end of the trial period we discontinued the program for the following reasons:

1. The election rate had been increased by less than 5 per cent, and a portion of the increase could have been expected even without the automatic issue program.
2. The number of additional policies placed did not justify the substantial cost of administering the program. Our original assumption was that an election rate of 20 to 25 per cent might be expected under the program with a slightly lesser per cent justifying the expense involved.

It should be kept in mind that our issue procedure is on a manual basis, which heightens the election percentage increase needed to justify the program. Those companies issuing policies on their computers may find the program more feasible than we did.

MR. ELGIN R. BATHO: Berkshire Life has a special application form for use in connection with new insurance arising from the provisions of a

guaranteed insurability agreement. It may be used even though the amount being applied for is in excess of the amount of the option or additional benefits or riders are being requested beyond those available under the option. It includes certain questions concerning insurability which are to be answered only if the insurance applied for is in excess of the option amount or if additional benefits or riders are being requested. In such an "excess" case, the papers are underwritten for these excess benefits, and the incontestability and suicide provisions of the policy when issued are modified to provide that they apply only to such excess, thus making it unnecessary to complete two applications and to issue two policies, the first for the amount of the option and the second for the excess.

MR. GARY K. DROWN: A LIAMA survey about three years ago indicated that election rates were higher at the higher option ages than they were at the lower ages.

In the substandard underwriting area my company offers an option policy with the same rating for occupation and/or aviation as that included in the original policy.

Automatic issue of option policies has increased our election rates from 6 per cent to over 20 per cent. This has so encouraged us that we have extended automatic issue to expiring convertible term policies and riders and have experienced similar very favorable election results.

To minimize our concern about questionable claims arising from policies floating about, issued but undelivered, under the automatic issue system, we have developed a form that requires the signature of the insured to accept the policy. The form deals with administrative matters, such as the election of a dividend option and the designation of a beneficiary.

CHAIRMAN WILLIAM H. SCHMIDT: MONY's current purchase option rider contains a maximum of six options. These are exercisable at ages 25–40, with "marriage" and "stork" anticipation permitted. The maximum option amount is $15,000, so that up to $90,000, in addition to the base policy, can be issued without further evidence of insurability. In 1967 12.8 per cent of our policies contained the purchase option rider. As a percentage of sales on eligible contracts (i.e., applicants age 35 or less) this percentage would almost double. The percentage of options exercised has increased gradually over the years. Last year, 8.1 per cent (by amounts) of the options at age 25 and 28.4 per cent of the options available at age 40 were exercised.

The question with respect to mortality under policies issued on the

exercise of the option is a trifle premature, since the Committee on Mortality under Ordinary Insurance is currently investigating this. MONY's contribution to this study showed, for all ages combined, a mortality ratio of 1081 per cent for the first policy year (expected deaths based on the 1955-60 Basic Tables). In the second policy year, the mortality ratio was 307 per cent. There were no deaths in subsequent years, and the over-all average was 433 per cent. As might be expected, our exposure was fragmentary. We had a total of twelve deaths for $97,500, about $77,300 in excess of the expected. However, MONY's valuation policy on purchase option rider reserves provides for an annual release to cover the extra mortality at election. We estimate that, in the period under investigation, we released significantly more in reserves than the amount of excess mortality shown above.

B. Conditional Receipts

What is the current status of conditional receipts? Will recent court decisions cause life insurance to follow the practice of casualty insurance in being on the risk until declined? What methods and procedures can be used to prevent severe antiselection and limit exposure on large risks? What methods are used to determine the temporary insurance premium if the applicant does not accept the issued policy or is declined?

MR. MENO T. LAKE: Because of recent unfavorable court decisions, the status of conditional receipts is extremely clouded.

In several jurisdictions, at least, we seem to be put on the risk until action has been taken. If this is true, it seems to raise some very good questions:

1. How long should coverage be extended?
2. What is the maximum amount that we should be put on the risk for?
3. Should the practice of accepting cash with the application be discontinued until the policy is issued for delivery?

How might we protect ourselves?

1. One possibility is to discontinue accepting money with the application.
2. Barring item 1, review the wording of our conditional receipts very closely and carefully educate the agents on what to say.
3. Specify the amount of coverage very clearly during the temporary coverage period.
4. When the underwriting determines that a policy will not be issued as applied for, why not notify the applicant of the action and state that coverage is not in force and return the money paid?

How should we determine the temporary insurance premium?

1. If it is issued as applied for, we should keep the proportionate premium and assure the applicant that he has been covered.
2. If not issued as applied for, or if declined, it is best to refund all the premium paid, even though there was coverage for a period; otherwise, it would seem to result in frequent arguments that could be costly from both a public relations and administrative-expense standpoint, considering the usual amount of premium involved. In the final count, would not most of any premium that was charged be paid out in commissions on a case that was not placed?

MR. ALEXANDER MARSHALL: At the April, 1967, New York meeting of the Society, Mr. Fred Chapman of the Metropolitan presented a comprehensive summary of the new receipt adopted by the Metropolitan six months earlier, on October 31, 1966. This report supplements Mr. Chapman's report and will cover some of our experience with the new receipt. To put my remarks in perspective, I will review certain items briefly.

The change in our receipt from a "conditional" to a "temporary insurance" basis was prompted in large part by the continuing trend of adverse court decisions in cases involving "conditional" receipts.

For many years prior to October 31, 1966, Metropolitan used a "conditional receipt." It was written on an "approval" basis—coverage came into effect only if the application was approved by the company for the policy applied for. However, in practice, it was administered on an "insurability" basis—coverage was provided if the applicant was found to be insurable, according to the company's rules and standards, for any policy classification.

In October, 1966, we adopted the new receipt, which we are still using currently. It provides a special form of temporary insurance, regardless of insurability, under the terms of the temporary insurance agreement in the receipt. Such temporary insurance is effective immediately in nonmedical cases on which the equivalent of at least one monthly premium on the policy applied for is collected. In cases where a medical examination is required according to ratebook rules, the temporary insurance becomes effective only after completion of that examination.

Methods and procedures used by Metropolitan to prevent severe antiselection and to limit exposure on large risks fall into two categories—receipt limits and underwriting procedures.

1. *Receipt limits.*—Several safeguards are built into the language of our "temporary insurance" receipt. For example, if a medical examination

is required by company rules, temporary insurance does not become effective until the completion of that examination. (This limitation, however, does not apply in the event of accidental death within thirty days from the date of the receipt.) Also, temporary insurance terminates as soon as coverage becomes effective under a policy issued as applied for, or when the company first offers to deliver a policy other than as applied for, or when the company declines the application—or, if none of these, at the end of sixty days from the date of the receipt.

Other safeguards include a maximum over-all limit of $50,000 for amounts payable under all receipts that may be in effect on any one life at time of death. An important protection is the provision in the receipt that temporary insurance is not payable if there is material misrepresentation in the application or if death results from suicide. That introduces a safeguard (which was not present in the previous receipt) whereby we can now deny claims for accidental death during the thirty-day period following the date of application if there has been material misrepresentation in the application. Under previous language, we did not feel we could do so effectively.

2. *Underwriting procedures.*—Metropolitan agents are instructed not to accept an advance payment, and not to issue our receipt, if the proposed insured has ever been declined for life or health insurance. They are not to accept advance payment or issue our receipt if there is any history of a serious ailment, if the proposed insured does not appear to be in good health, or if there is any indication that the proposed insured may be uninsurable for other reasons. In such cases the agents are instructed to submit a preliminary application without payment of any money.

In large-amount cases (more than $25,000 applied for), a further precaution is taken. On such cases, the agent is instructed to submit to the underwriters Part A of the application plus a partially completed Part B, wherein certain significant medical questions must be answered, without awaiting completion of Part B by the medical examiner. This early submission of the application is designed to speed the underwriting process, and we find that it serves to pick up severe cases of antiselection quickly. These can be acted upon immediately upon receipt of the adverse information.

There are further additional steps which we can take to speed up the underwriting review in order to achieve swift action on doubtful risks. So far, however, we have not needed to implement those additional special procedures.

Have these methods and procedures been effective in preventing severe antiselection and in limiting exposure on large risks? That is difficult to

measure quantitatively except in the case of temporary insurance claims denied because of material misrepresentation in the application or because of suicide.

Perhaps the greatest safeguard is the relatively short period of exposure involved. While there has been an increase in the number and amount of claims paid under the new receipt, which would not have been paid under the old receipt and prior practice, we have not found the extra cost to be sufficiently great to warrant introduction of added safeguards.

On receipts issued during the eighteen months ending April 30, 1968, there were 207 cases on which temporary insurance claims were submitted. Of these, 53 claims were denied—50 because they involved material misrepresentation in the application and 3 because of suicide. The causes of death on the 50 rejected claims (other than suicide) were spread fairly evenly over all causes.

On 154 of the 207 cases, we paid claims in the amount of $897,627. That represents an increase of about 24 per cent, both by number and by amount, over the amount we would have paid under our prior practice and conditional receipt, assuming that there would have been no adverse court decisions resulting in the payment of more than that intended under the old receipt.

We do not appear to have experienced severe antiselection by amount. In part, this reflects the sources from which our business is drawn. Out of 207 submitted claims which have been categorized to date, only 24 were for $10,000 or more. Of these, only 3 were for $20,000 or more.

Analysis of the causes of death is interesting, although not yet definitive. Of the 207 claims, about 25 per cent were attributable to heart disease (heart attack, hypertension, etc.). Twenty-five per cent were attributable to accident (auto, drowning, etc.). There were 13 cancer, 11 stroke, and 3 suicide claims. Pneumonia and respiratory diseases accounted for another 12 per cent. About 25 per cent of the claims submitted involved children under age 1; of these, about one-half were on children under the age of three months and involved a sudden virus infection with very high temperatures, terminating in the death of the infant. It seems to me that the temporary insurance benefit has served a useful purpose and, so far, is perhaps worth the extra costs involved.

The underwriting status of the claims submitted suggests the need for early and prompt underwriting decision. On the average, death occurred about 20 days after the Part A of the application was signed, and 10 per cent of the deaths occurred within the first three days. The new receipt has caused us to substitute a decline action where previously we might have postponed for a period of six months or so, since the wording of the

new receipt does not provide for termination of the temporary insurance prior to the end of the 60-day period, on a postponement. Under our present system we consider the receipt to cover, in addition to death, any change in the insurability of the applicant prior to delivery of the policy but within the 60-day period, if the application is otherwise approvable as applied for.

About 90 per cent of the 207 claims submitted were applied for on nonmedical applications. The underwriters asked for medical examinations on just over one-third of these nonmedical cases, a substantially higher proportion than the 6 or 7 per cent we ask for on nonmedical business, over all.

Of the 154 claims paid, almost 75 per cent were on insurable lives: 88 cases would have been approved for the policy applied for; 23 cases would have been approved for a rated-up policy. The remaining 25 per cent breaks down into 16 clearly declinable cases and 27 cases where action was still pending. The latter were cases where we were awaiting completion of a medical examination requested by the underwriters—presumably, a large number of these would have proved declinable. Yet these otherwise declinable cases were paid under the temporary insurance coverage.

We have not calculated a special temporary insurance premium applicable to all applicants who are covered by temporary insurance.

If Metropolitan offers a policy other than as applied for and our offer is refused, we refund the entire advance payment. If the application is declined, we refund the entire advance payment. There is no charge or "premium" for the temporary insurance provided in such cases. We believe it is prudent to erase as completely as possible every basis for possible subsequent claim, even though there may have been a period of temporary insurance on risks we decline to accept as applied for.

If, however, we offer to deliver the policy as applied for upon payment of the balance of the full first premium and that offer is refused, a temporary insurance charge is applied. That charge is equal to one monthly premium on the policy applied for applicable to the amount of insurance granted under the temporary insurance agreement. Any excess of the advance payment over this charge is refunded.

This approach to the temporary insurance charge is designed to treat the annual premium (or semiannual and quarterly) policy applicant in the same manner as the monthly premium policy applicant, since the former could have applied for a monthly premium policy and then later changed to the mode actually desired. This approach still gives rise to

adverse reaction on occasion from our field force and from applicants. Each situation is investigated and handled individually.

A monthly premium application requires that the full first monthly premium be paid in advance for the temporary insurance to become effective. When the policy is approved as applied for, the policy becomes effective immediately and the premium submitted is considered paid.

When an annual premium (or semiannual or quarterly) policy is applied for, we provide temporary insurance protection if the applicant pays an amount at least equal to a monthly premium in advance, even though that may be less than the full first premium on the policy applied for. If such a policy is issued as applied for, and if the applicant refuses to accept the policy by refusing to pay the balance of the full first premium, we believe he is not entitled to receive a refund of the full partial premium paid, since that would place him in a relatively more favorable position than he would have been had he actually applied monthly.

C. Term Insurance

1. What has been the experience of companies on conversion rates of term insurance and postconversion mortality? What marketing strategies have been successful in stimulating the conversion of term insurance? Has the recent emphasis on "buy term and invest the difference" reduced conversion rates?
2. To what extent have the companies depended on postconversion earnings in setting term insurance premiums? What items, including commission rates, involved in the determination of premiums and cash values for permanent policies foster the use of "minimum deposit" or "stripping" sales to provide term coverage?
3. What has been the experience on special decreasing term products under which the initial amount can be restored at given intervals?

MR. MENO T. LAKE:

Conversion Rates and Postconversion Mortality

1. Per year our conversion rates are in the area of $2\frac{1}{2}$–3 per cent of all term in force but $3\frac{1}{2}$–4 per cent of term insurance over two years old.

2. We show quite different results between decreasing term and level term. Our rate on level term runs more than twice that on decreasing term. Level term runs over 6 per cent.

Mortality in the first year after conversion, as might be expected, is 300–400 per cent of normal, but for all years combined the mortality experience for the latest year studied was about 124 per cent of the X-18 Table, which does not seem too different from nonmedical experience.

Marketing Strategy on Conversions

The first big step on conversion, in my opinion, takes place at the time the term policy is issued, not when it is converted. That is the selling of the need and benefit of later conversion when the term policy is sold.

Our go-direct procedure is probably the next-biggest factor. We call it our automatic policyholder communication system, in which we notify the insured of all information regarding the conversion option in his policy. This is done once a year, commencing with the beginning of the third policy year, and is done directly to the policyholder with a warning information notice to the agent. The first year after we started this, our volume of conversions almost doubled.

Another big factor, I feel, is our practice of paying full commissions on conversions.

"Buy Term and Invest the Difference" Philosophy

Our rates of conversion have increased over earlier years and have maintained their level; so I feel that there is no indication that conversion rates are decreasing because of any outside influences.

We do not consider any profit from conversion in setting our term rates. With the rate of conversions being a relatively low percentage of the total term insurance sold, I do not feel that it would be a material factor in setting the term rates.

We have, for six or seven years, had an option permitting the initial amount and term of decreasing term to be restored at one specific time. The rate of exercise of this option has increased steadily from about 13 per cent when we first put it into effect to over 25 per cent last year.

The mortality experience, with a very small number of claims, seems to be completely normal. I should make one thing clear, however, as far as our own experience is concerned. That is that we allow this restoration option only once, for a limited period of time, and at a specified policy anniversary. I feel this serves the purpose of the option very adequately while drastically limiting the possibility of antiselection.

CHAIRMAN WILLIAM H. SCHMIDT: MONY's term conversion rates range between 5 and 8 per cent annually except in the fifth year, when the rate peaks to about 14 per cent. However, the month-by-month sales figures show an interesting pattern of peaking in April and November, immediately following our March and October sales campaign. The implication seems quite clear that the rate of conversion often depends upon the aggressiveness of the field underwriter. Our mortality results (by

number), compared with the most recent intercompany study, are as follows:

	Per Cent
Intercompany, 1954–61 . . .	136
MONY, 1957–61	187 (116 deaths)
MONY, 1961–66	125 (737 deaths)

By amounts, our ratios were somewhat lower.

MR. ROBERT E. HUNSTAD: In our pricing of term policies, we take into account the additional mortality that we expect to incur when these policies are converted. We take as an offset the anticipated savings in issue expenses on the converted policy.