TRANSACTIONS OF SOCIETY OF ACTUARIES
1963 VOL. 15 PT. 2

DIGEST OF DISCUSSION OF SUBJECTS OF SPECIAL INTEREST

INDIVIDUAL LIFE AND HEALTH INSURANCE

HEALTH INSURANCE

Maternity Benefits

What has been the claim, lapse, and expense experience on hospital-medical policies with maternity benefits issued to young married couples? To what extent have hospital-medical policies been introduced with reduced maternity benefits during the early policy years or with no maternity benefits? What other measures are being used to provide maternity benefits on a self-sustaining basis? Are these measures effective?

MR. ALBION U. JENKINS: Until April, 1963, the Prudential issued two hospital expense policies which provided level maternity benefits of the usual type. We experienced considerable anti-selection with respect to claims and lapse, and when these two policies were recently revised we omitted the maternity benefit entirely from one and included a graded maternity benefit in the other. The latter plan reimburses hospital expenses up to eight times the daily benefit for normal childbirth during the first two policy years and twelve times thereafter with one-half these amounts for miscarriage and one and one-half times for Caesarean section. Further, on this plan we charge a higher premium, the excess decreasing with age, for young wives than we do for single women. The policy without maternity benefits is currently outselling the other.

MR. JOHN C. ANGLE: In January, 1960, Woodmen Accident and Life Company introduced a new series of guaranteed renewable hospital-surgical contracts which provide maternity coverage only in the event of complication of pregnancy. We found that a workable benefit must define in medical terms those conditions considered as complications. At first the field was unenthusiastic, but after three years of educational work, 60 per cent of the agents indicate their preference for this benefit as opposed to the normal benefit included in an earlier series. A benefit for complications of pregnancy should incorporate a deductible approximating the expense of a normal childbirth, and we do this by excluding the first five days of confinement. The accompanying table gives the annual frequency of maternity claims observed by us during calendar year 1960,

Attained Age (Last Birthday) of Insured Wife	Policy Year				
	1	2	3	4	5 and Over
15–19	0.298	0.615	....	....	....
20–24	.314	.383	0.413	0.294	0.246
25–29	.262	.365	.273	.330	.223
30–34	.138	.203	.173	.206	.152
35–39	.084	.094	.109	.098	.080
40–44	.010	.052	.023	.030	.027
45–49	0.007	0.004	0.006	0.015	0.011

Annual lapse rates for ages 16–40 were 34.4 per cent, 36.3 per cent, and 30.9 per cent at mean durations 1–3, respectively. These high lapse rates combined with declining claim costs make it difficult to determine reasonable gross premiums.

Miscellaneous Health Insurance Topics

A. What are the problems in meeting state or provincial requirements that benefits must bear a minimum relationship to premiums charged? What recent filing problems have been raised by the various insurance departments on health insurance policies?

B. Does the growing use by hospitals of "progressive patient care," providing progression through three levels of care—intensive care (with high personnel-patient ratios), intermediate care (normal present hospital services), and convalescent care (ambulatory hospital wing or nursing-home care under the supervision of the hospitals)—indicate a need for changes in hospital policy design? What information is available upon which to base premium evaluation of such changes?

MR. ALFRED L. BUCKMAN: California is the most recent state to enact legislation empowering the commissioner to withdraw approval of a health form if benefits are unreasonable in relation to premium. California legislation differs from that in the other states in two important respects: (1) it applies to individual hospital, medical, and surgical forms only, and (2) it requires the commissioner to issue regulations establishing standards for withdrawal of approval. The resulting Article 1.9 of the California Administrative Code has introduced a new standard that each form should develop a loss ratio based on annualized premium of not less than 50 per cent if the premium exceeds $7.50 per person or 35 per cent otherwise. In applying this standard, past loss experience is considered as an indicator of average loss experience which should develop.

Basically, the regulation sets up a screening device based on the accident and health policy experience exhibit which must be filed each year covering the experience of the preceding year. The screening device consists of three steps: (1) if the company does not separate first-year and renewal business, the aggregate experience of all forms is reviewed (excluding experience on policies issued on a guaranteed issue or mass underwriting basis), and if the aggregate loss ratio is satisfactory, no further review is necessary; (2) if the company does separate first-year and renewal business, the renewal business is so reviewed; (3) if (1) or (2) shows that further review is necessary, the commissioner may investigate each form separately.

Problems related to preparation of the exhibit include: (1) The separation of policies affected from other health policies. Policies affected are defined as those for which at least one-half of the premium is allocated to hospital, medical, or surgical benefits. (2) Separation of experience on policies individually underwritten from policies issued on a guaranteed issue or mass underwriting basis. (3) Many companies may not pass step

(1) of the test and will have to develop experience by policy form separately for first year and renewal in order to avoid step (3). (4) The necessary subdivision of policies.

Problems related to the development of "relevant factors," in case individual forms must be examined, include: (1) A company must maintain earned premium records by mode and form in order to avail itself of factors provided to relate fractional premiums to annual premiums. (2) If a company has changed premium rates during the period under review, it must relate the entire experience to the current rates. (3) Detailed records must show the effect of experience refunds or dividends on the loss ratio for participating policies. (4) Persistency experienced or anticipated must be furnished for policies cancellable or renewable at the option of the company. (5) In the case of noncancellable or guaranteed-renewable policies, an adjusted loss ratio per the footnote to Schedule H must be furnished, and if reasonableness of benefits to premiums is still not established, analysis of the relation of net to gross premiums must be furnished. (6) The company may prepare data for other relevant factors such as experience by geographical area, etc. The most difficult filing problem is too many and too frequent changes in state requirements.

MR. HOWARD D. ALLEN: In January, 1963, the John Hancock increased premiums on new major medical policies 40–60 per cent—60 per cent for adult males and 40 per cent for younger females. While we experienced no difficulty in obtaining approval of these rates, we did have some difficulty in New York with our corresponding rate increases on existing business, which ranged from 30 to 40 per cent. First, we supplied the department with earned and written premiums, incurred and paid losses, and loss ratios for each year of issue in each calendar year of experience. We were permitted to calculate loss ratios on the basis of net level premiums. Then, in this order, they (1) questioned the greater percentage increase at older ages and asked us to submit loss ratios by age group, (2) asked us to project two years of issue for five years into the future, and (3) asked us to compare these increases with those on the previously approved new business. For the projections we introduced a 7 per cent inflation factor and a 1 per cent increase factor for advancing average age, which gave a 1967 loss ratio of 90 per cent with no relief, 60–70 per cent with the relief requested. We finally obtained approval on this basis.

MR. WILLIAM T. TOZER: Earlier this year the American Republic experienced some difficulty in obtaining approval of a new health policy in Nebraska. A personal visit with the commissioner disclosed that the difficulty was due to his reservations concerning membership fees, which we have used for many years. He did approve the form but stated that he was going to investigate membership fees further. Shortly thereafter we submitted another policy which had a membership fee and which was approved immediately. This may mean that the commissioner has revised his thinking on membership fees, but the situation bears watching.

We have noticed in filing surgical schedules that many departments, especially Wisconsin, are scrutinizing the relationship of operations with each other and with the maximum. If the schedule is based on the 1957 Relative Values Study, there seems to be little difficulty.

Prior to March, 1963, all states except New Mexico which do not recognize a pre-existing condition clause have recognized the combination of this clause with the conformity with state statutes clause. However, in March, New Mexico for the first time approved one of our policies with this combination, so we can now use a standard policy form in all states.

Some states require that a statement be attached to each policy giving the policyholder the right to examine the policy and if not satisfied to return it within ten days of receipt for a full refund.

Our policies for many years stated that the policy provided benefits for disability which originated more than thirty days after the date of the policy. Many companies have used too restrictive a definition of "originated" in order to deny claims, so Michigan has reacted by requiring "originated" to be changed to "first manifested."

There have been many attempts to restrict commercial health policies. For example, Florida and Wyoming require the applicant to sign a statement that he understands that the company can refuse to renew. There are several bills in state legislatures which would limit the company termination rights.

Several years ago, a company could limit policies to benefits for services provided by an M.D. Several states now require extension to include osteopaths, chiropracters, podiatrists, and even optometrists. Some legislatures are considering comprehensive bills requiring payment to all licensed practitioners of the healing arts. These developments could have serious consequences for claim experience.

The health insurance industry has been a fast growing and diverse industry. Many companies have denied claims because of technicalities in their contracts and have abused nonrenewal or cancellation clauses. However, I think we can look forward to less stringent regulation in the future due to a development in the area of health insurance regulation similar to that of life insurance regulation since 1906.

MR. EDWIN B. LANCASTER: Our medical people at Metropolitan tell me that it is difficult to ascertain (1) the number of hospitals (and their size) that now provide "progressive patient care" and (2) the rate at which hospitals are undertaking this type of care. "Educated guesses" are (1) one hundred hospitals in the United States have all three levels, and (2) "a fairly rapid rate." Statistics indicate that about one thousand nonfederal hospitals in the United States provide "intensive care"—the first step in the progressive-care scheme. However, this "intensive care" varies from elaborately equipped and staffed special units to units combined with or an extension of recovery units. Daily room rates for the former range from $10 to $30 higher than in the regular portion of the hospital, while there is generally no extra charge for the latter.

Our individual policies designed for older persons specifically provide for nursing-home coverage preceded by a period of hospitalization in a regular hospital. While our other contracts do not specifically provide this coverage, we honor claims from the convalescent portion of a regular hospital, but not for care in a separate convalescent home, whether or not operated in conjunction with a hospital.

It is our general view that no specific changes are called for in our current benefit structures, although we must keep abreast of this matter with respect to benefit structure, claim administration, and rates. Developments such as this suggest the desirability of benefit design sufficiently flexible to recognize justifiable benefit payments regardless of the way they are specifically billed.

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LIFE INSURANCE

Annuity Benefits under Settlement Options and Endowment Policies

A. Do rates being used for these benefits in new policy forms differ depending on whether the benefit is being received (*a*) by a beneficiary under a mandatory option, (*b*) by the beneficiary under an option elected by the beneficiary, (*c*) by the insured as a result of the surrender of the policy, or (*d*) by the insured under a matured endowment? What are the advantages and disadvantages of using a generation-type mortality table for these benefits?

B. How widespread is the practice of offering at time of settlement a rate basis consistent with the company's current single-premium annuity rates? Does this create any tax or Annual Statement problems?

C. On participating business, are dividends on such annuity benefits paid after the annuity-certain period? Is it desirable and feasible to level such dividends? To what extent are dividends on such annuity benefits illustrated in sales material?

MR. ALVIN B. NELSEN: At Equitable of New York, we decided for simplicity to continue to use a common set of life income guarantees for all types of settlement on our 1958 CSO series. Our series of policies issued prior to 1954 gave us experience with the complications and dissatisfactions that can arise where differentiations are made by source of the settlement.

We also continue to use a single-entry table rather than a generation-type double-entry table. Here, too, our motivation was to avoid complicating our policy forms and procedures. We also felt that rates of improvement in mortality can be only, at best, an educated guess, and we could not hope to predict accurately the differences in mortality rates as related to the time of settlement. Actually, differences in interest rates for settlements made at different times could have a greater effect on the relative costs than changes in mortality rates, but these differences cannot be projected.

Rates were calculated on our own modification of the a-1949 table, with provision for future improvement in mortality. We chose to use $2\frac{3}{4}$ per cent interest on life income options, rather than $2\frac{1}{2}$ per cent and less conservative mortality assumptions, in view of the inherent tax advantages. For contracts issued to qualified pension plans, we recognized the larger after-tax expected interest earnings by using a 3 per cent interest assumption for life income guarantees.

The Equitable has over a period of years made available, either contractually or by practice, an option to apply single-sum policy proceeds to provide an income 3 per cent greater than could be obtained under immediate annuity rates in effect at the time of settlement. This option was not frequently exercised, except to provide forms of income not otherwise available, until we adopted our current immediate annuity rates in March, 1962. These rates are based on the investment-year method of allocating investment income and provide a more attractive return than the life income guarantees of many of our policies. Thus this option has become an important means of settlement. We treat such "103 per cent options" as another form of settlement option and have had no tax or Annual Statement problems.

Under settlement options contained in recent series of policies, we pay excess interest dividends over the full period and illustrate such dividends at representative ages in our sales material. These dividends are not leveled. While there may be an advantage in leveling such dividends in order to provide a more level income to the beneficiary, from our experience with equalized dividends for immediate annuity contracts we know that the carrying forward of separate dividend classes and funds for each year of settlement can create a complex dividend structure.

MR. JAMES J. HALLORAN: The Prudential does not vary the settlement option rates by type of settlement, nor do we use a generation-type mortality table. It is felt that the administrative complications that would be introduced by adopting either of these approaches would more than outweigh the advantages of providing for expected mortality improvement in the contractual guarantees. We do not offer a settlement option explicitly related to the single-premium annuity rates applicable at time of settlement.

Since 1961 the Prudential has been paying dividends on life annuities after the certain period and on straight life and joint and survivor annuities for those settlements that arose from policies issued in approximately the last twenty years. These dividends are level both during and after the certain period. This leveling facilitates the illustration of such dividends in sales material, and it better enables the insured to plan for future needs at the time of original purchase. Check processing is made easier by using the leveling approach, if dividend assumptions are not changed, since we are not troubled by the annual change in the payment peculiar to the decreasing dividend scale. The administrative complications arising when the dividend scale is changed and the dividend is "re-leveled" have been solved effectively by electronic programs.

MR. RALPH H. GOEBEL: Effective with its May 1, 1963, rate book the Northwestern National Life Insurance Company has adopted new life income settlement option rates. Both mortality and interest rates are based on the generation principle. We used the 1960 modification of the a–1949 table with projection, with separate male and female values. Interest was taken as 3 per cent on all functions not involving life contingencies. For "involving" factors the interest rate was taken as 4 per cent through 1970, decreasing .05 per cent per year to 3 per cent for 1990 and later. Calculations were then made on an IBM 7070 computer, assuming policy proceeds are applied in calendar years 1964, 1969, 1974, 1979, and 1984. The resulting factors were then used for policy years 1–5, 6–10, 11–15, 16–20, and 21–25. For policy years in excess of 25, reductions (not varying by age) were used for every five additional years. Under this method of stating income as a function of elapsed policy years rather than, for example, attained calendar years, our factors will gradually become less conservative, necessitating a review in, say, five years.

Resulting monthly guarantees for a male, age 65, 10-year certain and life per $1,000 of proceeds are:

Policy Years	Monthly Income
1–5	$6.51
6–10	6.38
11–15	6.25
16–20	6.12
21–25	6.01
Each additional 5 years	Reduce by $0.05

Coupled with these settlement options we have introduced an annuity option. Policy proceeds may be used to procure an annuity under which each instalment will be 103 per cent of that otherwise provided if a single premium annuity were purchased from the then current rate book. The additional 3 per cent is due mostly to commission savings.

The combination of the generation-type settlement option with the annuity option has been received very well by our sales force. We in the actuarial department also are quite pleased with it from the long-range safety standpoint.

With the generation approach we feel we do not have to worry very much about who selects the option, since we believe our mortality basis is conservative. With regard to the annuity option, we anticipate no tax or Annual Statement problems. We consider the annuity option as merely the granting of a special settlement option rate.

MR. ROBERT W. WALKER: At Northwestern Mutual there is no differentiation made in settlement options according to who selects the option. It is true that mortality rates may vary depending on the election —this surely has been demonstrated—but we believe that this is one area in our business where practical considerations must control over theoretical.

We have always stressed the use of settlement options and have found they were used. However, to hold down seemingly unnecessary expenses of housekeeping which may well be more significant than differences in mortality by type of payee, we have developed the philosophy that option provisions should be written in the most flexible manner possible. If inflexible options are used, it has been our experience that they just do not do the job intended, as is also true with too restrictive beneficiary designations. Flexibility is indeed the password.

As for generation-type mortality tables, we feel we have presented our position at sufficient length in the past. We commend them.

In answer to Question B, the practice of offering a settlement based on current single-premium annuity rates seems to be growing. We have adopted it with our new 1958 CSO policy series and have opened it retroactively to all policy series. We have not anticipated any unique tax problems in this area. We have but one basis—always a current one—for the valuation of annuity contracts and settlement annuities for Annual Statement purposes, and this new practice is merely an additional source from which such contracts come.

MR. L. S. NORMAN: Beginning in 1958, American United Life has used as its basis for life income settlements an amount of income 4 per cent greater than the amount that would be provided on the company's single-premium annuity rate basis in effect at time of settlement. Of course, the guarantees in the policy prevail if they provide more income than this current-settlement basis.

At the death of a payee during the certain period, any commutation of remaining certain payments is at the interest rate ($3\frac{1}{2}$ per cent on current issues) used in the annuities whose rate basis determined the amount of income, but with the provision that in no event will the total of the monthly payments made plus the commuted value of the remaining certain payments be less than the corresponding total guaranteed by the provisions of the original policy. This latter proviso is included because we are applying the method in some cases where the policy language includes a commutation rate lower than $3\frac{1}{2}$ per cent.

The guarantees in the policy may be kept conservative while actual performance is as liberal as experience permits. Whenever an agent uses the current life-income settlement basis in a sales illustration he must also show the guaranteed basis, and, as required when illustrating the company's policy dividends, he must include a statement that the current basis is not a guarantee or estimate for future years.

We have not run into any special tax or Annual Statement problems to date.

We have chosen to provide level incomes on these settlements both during and after the certain period, rather than the traditional excess interest during the certain period, principally because a reducing income was difficult to explain to beneficiaries. We felt that it prevented the company from reaping public relations advantages in keeping with the liberality of our settlements. Freezing the amount of the income at the time proceeds are finally committed seems logical, since a parallel may be expected between the subsequent reserve reductions and the turnover of the investments corresponding to the reserve.

MR. B. FRANKLIN BLAIR: Our policies at Provident Mutual for the past twenty-four years have contained a provision that any life-income settlement option elected would automatically be increased to 104 per cent of the income provided on the basis of our then current single-premium annuity rates, if such income is greater than the contractual guarantee. However, we plan to omit this provision from our 1958 CSO policies to be introduced around January 1, 1964.

We have regarded these optional settlements as supplementary contracts, and thus believe there is no premium tax problem. There is a minor Annual Statement problem, since a different reserve class for supplementary contracts is introduced each time we change the mortality or interest basis of our annuity rates.

There are other problems which have led to our decision to discontinue this option. One is that illustrations of what the income would be, based on today's annuity rates, cannot very well be used in a sales presentation using programing; as a result the provision seems to have little sales appeal.

Our clause provides for a participating income during the certain period, with the instalments certain of the 104 per cent annuity based on the same interest rate as the instalments certain of the contractually guaranteed life-income settlement options in the particular policy from which proceeds arise. This is difficult to explain to agents and even more difficult to explain to prospects. However, it does avoid the difficulty that would be introduced if the normal settlement option was participating but, as in many mutual companies, the single-premium annuity income was nonparticipating. In that case the beneficiary would be placed in the position of having to choose between a nonpar income with higher guarantees or a par income with smaller guarantees, and the company would probably and unfortunately feel obligated to attempt to predict future dividends in order to help the payee make an intelligent decision.

Because of these practical problems our new policies will provide regular life income options, not directly related to our current annuity rates, with level dividends both during and after the certain period. We intend to illustrate these dividends in our sales proposals, appropriately indicating that they are not promises or estimates.

MR. FRANK M. BRISTOW, JR.: In January, 1957, Connecticut Mutual adopted a set of "adjusted" life income rates which noncontractually applied to the settlements then becoming effective, in order to be "competitive" with the company's newly introduced single-premium annuity rates. These annuity rates provided higher income in certain areas than those otherwise provided by settlement option rates for several recent policy editions. The "adjusted" rate provided for excess interest participation during the certain period, as did the contractual settlement option.

In January, 1960, these "adjusted" rates were changed as annuity rates were revised at that time. Again in July, 1961, these were changed, but at that time the "adjusted" rates were made nonparticipating. The "adjusted" rates provided for 104 per cent of the then current income under an annuity contract, the 4 per cent representing savings in commissions and premium tax. With the adoption of the 1958 CSO series in April, 1962, this "alternate life income" was made a contract provision and was made retroactive for existing contracts.

We feel there are no major tax or Annual Statement problems. The supplementary contract reserve is set up on a more conservative basis than either the policy settlement option basis or the alternate life-income basis, whichever is applicable, so there is a charge against our reserve for options in policies not yet matured when a life-income settlement becomes effective. The reserve for options is created at the time of policy issue and is based on the higher of the guaranteed settlement options or the alternate life income. Thus the reserve for options must be carried at a higher level than if we did not have this feature.

We do, in all cases, recommend to the payee which alternative we think is more favorable for him. The fact that annuity rates are nonpar while settlement options participate in excess interest during the certain period creates a minor practical problem. In some areas it is difficult to recommend a basis, since future excess interest can only be estimated.

The alternate life income is being used extensively. Of the $7.3 million proceeds settled in 1962 under a life income arrangement, 41 per cent was based on the alternate rates.

Tying single premium annuity rates to the policy contract does act as somewhat of a restraint upon liberality of annuity rates, but we feel this contract feature is a valuable one for the insured, it maintains consistency with single premium annuity rates, and it is a logical benefit to provide in a mutual company.

MR. J. STANLEY HILL: It appears to me that a payee might have one of two reasons for finding that the alternate annuity option described in Question B provides the most favorable rates. The first would be that current annuitant mortality and average interest experience are better than anticipated in the guaranteed settlement options. The second might be that current annuity rates are based on the new-money theory. If the latter is the case, it raises a serious question whether this is a sound option. It places at the disposal of current payees the new-money rates, to which they can apply reserves that have been accumulated over the years at investment yields that perhaps were substantially lower than the new-money rate.

MR. WILLIAM J. TAYLOR: At Massachusetts Mutual we have an alternate annuity option for settlements, and one could almost say we have it not in spite of but because of the new money theory. With the use of a select interest concept, our single-premium annuity rates have been lowered to the point where many of our agents simply stated that it would be foolish for them to have a policyholder take the guaranteed settlement option when they could get more income for the payee on a current annuity, plus a commission for themselves. In this situation, I believe one is almost forced into adopting an alternate annuity option, the new-money question raised by Stan Hill notwithstanding.

Our dividends on settlement options are actually "level for life plus excess interest during the certain period." What we like to call our income dividends are level for the lifetime of the annuity and are based on, among other factors, the actual guaranteed interest rate during the certain period. On top of this level dividend we pay excess interest during the certain period. We take the position that this combination of dividends plus excess interest is appropriate for the money situation at the time the option is elected, since we tie it in with the single-premium annuity rates then being issued. Hence, we do not change the level of these dividends on options already elected even though we introduce new dividend scales. The excess interest, however, is computed on a current rate and may change during the certain period on a settlement already in force.

MR. WILLIAM J. NOVEMBER: At the Equitable of New York we pondered the perplexity that Stan Hill has raised, and our conclusion was much the same as Bill Taylor has outlined. Our immediate annuities are based on the new money concept, and we felt from a practical standpoint we just could not help but include the alternate annuity option in our new series of policies. In most cases, if the alternate option were not available the payee could use the proceeds of the policy to purchase a single-premium annuity. The payee thus still gets the higher return on the "old-money" funds she is investing with the company, and the company pays commissions on top of it. Dropping the option from the contract does not solve the problem, for where such a possible course of action exists the payee should be made aware of it if we are to service her coverage properly. Our conclusion, then, was to include the alternate annuity option and increase the income by 3 per cent in recognition of the commission and related savings.

Our agents like the option. Although they are not in a position to quote specific figures, the idea of being able to make current rates available with something added on does have sales appeal.

Underwriting

A. What are the problems in providing a waiver of premium disability benefit on a retirement annuity without life insurance benefits? To what extent are medicals, attending-physician statements, and inspections used in underwriting this benefit?
B. Is it feasible to guarantee to a single male that his life insurance policy can be changed without underwriting to a family policy when he marries? If so, on what basis?

MR. WILLIAM A. KELTIE: Of the annual premium retirement annuities we issue at the Great-West Life, 2 per cent by number of contracts or 3 per cent by maturity amount have the waiver of premium disability benefit. The minimum annual premium required on these contracts is only $50, but fortunately the average contract with disability benefit has an annual premium of about $400, with a premium for the disability benefit of just over $9. The main underwriting problem, as suggested by Question A above, is how to pay the $10 medical examiner's fee, a $3 inspection cost, and maybe $4 for an attending physician's report out of this $9 premium, aside altogether from the underwriter's time and processing overhead.

In spite of the low average premium to cover these costs, underwriting the disability benefit on annuities must be done carefully, for a higher percentage of impaired risks and uninsurables apply for annuities than for life plans.

To provide nonmedical underwriting for a higher percentage of applications, to give agents a simple guide to follow, and to alert them that we actually underwrite the disability benefit, we established a practice of counting each $50 of retirement annuity annual premium as equivalent to $1,000 of insurance. We then apply our regular nonmedical rules.

Our rules call for a medical examination where the annual premium exceeds $1,000 at age 30, grading down to where all are medically examined above age 45. We require an inspection report when the annual premium exceeds $250, and an attending physician's report when the premium exceeds $500 up to age 40. Beyond age 40 the physician's statement is requested on an individual basis.

A review of a sample of retirement annuities recently issued with disability benefits showed that 29 per cent were medically examined, 42 per cent were inspected, and 33 per cent required an attending physician's report. The cost of this evidence was 50 per cent of one annual premium charged for the waiver of premium disability benefit.

MR. COLIN E. JACK: The "Everywoman" policy which is issued in Great Britain by the Prudential is an interesting type of contract. Though the guarantee of issue provided under this policy is not the same as that posed under Question B above, the practice under the guarantee actually provided may give us some clues to the principles which ought to be followed if a company were to adopt the proposal we are discussing.

My own experience is limited to Canada, so I have no personal knowledge of the plan. I am indebted to Mr. K. N. Yeldham, F.I.A., for providing me with information concerning it.

The Everywoman policy is available for women aged from 16 to 34 and is basically a twenty-five-year participating endowment policy with an option to continue premiums after twenty-five years to secure a larger cash sum at age 55 or 60, with annuity options at those ages.

On marriage there is a cash payment (in the nature of an interest-free loan) together with an option to terminate the Everywoman policy and substitute one on the husband's life without evidence of health subject to the following conditions: (1) the option must be exercised within three months after the first marriage; (2) the policy must have been in force at least two years and not more than twenty-five years; (3) the husband must be aged less than 45; (4) the substituted policy must be a participating endowment with a sum assured not less than the basic sum assured and not more than twice that sum assured.

The premium charged is the regular premium at the time of substitution less a constant reduction obtained by dividing the value of the canceled policy—adjusted for the cash marriage benefit—by the value of an annuity on the life of the husband for the term of his endowment policy.

I should like to refer briefly to the interest-free loan granted on marriage. The idea of paying out a part of the sum assured on certain events, such as marriage, or entry into a university, is an attractive one. On this continent, however, with our complex nonforfeiture provisions, it has always seemed to me to be impossible to find a means of granting interest-free loans, or, if you like, paying part of the sum assured in advance.

Another interesting idea mentioned above, which our nonforfeiture provisions render impractical, is that of making policy changes by issuing a new policy and granting a constant reduction of premium, obtained by spreading the value of the old policy over the term of the new.

When the policy was introduced, the cost of the cash marriage benefit was determined using population statistics and included in the premium formula. It was found that a premium level for all ages could be used and that a convenient figure (£12 per year premium per £250 basic sum assured) was somewhat in excess of the test rates. It did not seem possible to assess accurately the cost of the various options—including the continuation and annuity options—but having regard to the probability that marriage was a selective factor in favor of the company, the level premium of £12 was used.

The policy has proved very successful, and about 40,000 are now in force. A fair proportion of those eligible do substitute a policy on the life of the husband, but no study has been made of the mortality on substituted policies.

Some of the features which may be noted which tend to reduce antiselection on substitution are:

1. The option must be exercised within a short time after the event on which it becomes open.
2. The original policy must be in force for a certain time, otherwise policies might be taken out in contemplation of immediate marriage to a man in poor health.
3. There is an upper limit on the age of the substituted life.
4. The amount of insurance on the new policy is related to that of the original one.
5. The new policy must be an endowment. (In Great Britain this is not so severe a restriction as it would be on this continent, for the popularity of the ordinary life policy there is not so great as it is here.)
6. The reduction in premiums makes the substituted policy generally more attractive than one a competitor might be able to offer.
7. As has been stated, marriage is a favorable selective influence. All married men agree that women instinctively select the finest specimens as their mates. There is statistical evidence that married men live longer than bachelors; I understand that statistics show that wild animals also survive longer in captivity than in their natural habitat.
8. The policy and the option are simple and have a strong popular appeal. The option to add a family benefit on marriage, as posed in Question B, satisfies the last criterion, and with suitable restrictions similar to those I have mentioned could, I believe, be offered with satisfactory results.

MRS. JULIA S. OLDENKAMP: Lincoln National does not provide the benefit referred to in Question B, but a provision in our term insurability rider may be of interest. The rider provides a special option which may be elected within three months of the date of the insured's marriage. Under this option the insured may purchase a new policy which, in lieu of the usual level-premium life or endowment plans, may be a family policy on the lives of the insured and his wife. In any case, the new policy must come within company limits as to age of both husband and wife, and, of course, the amount is limited by the rider. The new family policy will be effective if both the insured and his wife are alive upon the later of the policy's date of issue or the date of receipt by the company of the first premium not later than thirty-one days after the date of issue.

This special option was first made available in August, 1961, and at that time its use was also made retroactive to all in-force term insurability riders which were first issued in 1959.

Paid-up Addition Dividend Option on Life Insurance

A. How extensive has been the switch from the dividend accumulation option to the paid-up addition option? What is likely to be the effect on dividend illustration practices?
B. To what extent is the paid-up addition option made available to policies issued on a substandard basis? Are the mortality bases used for this option on substandard policies different from the bases used for standard policies?
C. Are there some kinds of policies on which it is not feasible to provide the paid-up addition option?
D. Do considerations of equity lead to making the paid-up additions participating, thereby becoming eligible themselves for additional paid-up additions?

MR. ALVIN B. NELSEN: In the Equitable we have been much interested in the impact of the current more stringent regulations on the reporting of interest earned on dividend accumulations.

In order to accommodate policyholders, we have liberalized our rules for changing dividend accumulations to the paid-up addition option. While we are experiencing an accelerated amount of switching, thus far the amount has not been sufficient to have a significant effect on the proportion of dividends applied to accumulations.

We have taken the further step in our 1963 rate book of showing about the same information for the dividend addition option as for the dividend accumulation option, including cash values of total paid-up additions at various durations.

We have just recently made a survey of twenty large companies to see if there is any evidence of a pronounced shift in emphasis from the dividend accumulation option. The responses indicated that there is considerable interest in this area. Most, if not all, of these companies are giving policyholders the opportunity to change existing dividend accumulations to paid-up additions. Also, about one-fourth of the companies have taken action to emphasize the addition option rather than the accumulation option for their sales promotion material, and another fourth indicated that they are considering such a change of emphasis.

One-half of the companies surveyed had a figure in the 40–60 per cent range as the percentage of dividends applied to accumulations in 1962. About one-fourth of the companies had less than 40 per cent of the dividends so applied, and the remaining one-fourth had more than 60 per cent.

It is interesting to note that for three of the five companies with less than 40 per cent of their total dividends being applied to accumulations, more than 50 per cent of their current elections at issue were being made to the accumulation option. This may be because there has been a strong trend to dividend accumulations in recent years as the result of higher interest rates.

One company that made a change in 1962 in its sales promotion material to emphasize additions has experienced a reduction in the percentage electing accumulations on new issues from about 60 to 35 per cent.

In summary, I would say that there appears to be a trend away from the dividend accumulation option as evidenced by the switching being made by policyholders and the change in emphasis by companies in their dividend illustrations books and in their sales promotion material.

The Equitable has been issuing substandard policies with cash values equal to those on standard issues since 1957. For these recent series we make available the paid-up addition option on a standard mortality basis for all substandard classes. For older issues, on which we have different cash values for substandard than for standard policies, the dividend addition option is provided on a mortality basis consistent with that used for the determination of the substandard cash values.

On term insurance policies the dividend addition option is not suitable because it could result in providing a relatively large amount of paid-up term insurance at certain durations and issue ages, thereby inviting antiselection.

In the Equitable paid-up dividend additions are participating, and illustrations of this option reflect the dividends allowed on additions. I might note that we allow a more favorable dividend interest rate on dividend accumulations than on paid-up additions because of the operation of the Federal Income Tax Act, under which the total interest paid on dividend accumulations is fully deductible.

MR. WILLARD A. THOMPSON: In discussing this question I will assume that it relates to conversion of existing dividend accumulations to paid-up additions as well as to changes in option.

The New York Life formalized a program at the end of 1962 to permit the conversion of outstanding dividend deposits to paid-up additions. Under this program, the company will generally consider such conversion, subject to minimal underwriting requirements, if the policy owner requests it. However, the company has not recommended a change to paid-up additions because of the new reporting requirement, for two reasons:

1. There has been no change in the taxability of interest on dividend deposits for individual policy owners. The Internal Revenue Service has long required the payment of income tax on such interest. The only change has been a requirement that insurance companies report such

interest to the Internal Revenue Service where the amount of interest is in excess of $10—just as banks will now be required to report interest in excess of $10 on bank deposits.

2. Both dividend deposits and paid-up additions are good options and each serves a useful purpose. Accordingly, the company does not favor one option over the other. We recognize, of course, that some policy owners may be interested in converting dividend deposits to paid-up additions where they feel that paid-up additions will better meet their own individual needs.

Since a conversion of this kind increases the company's risk, we feel that policy owners who desire such conversion should furnish the company with satisfactory evidence of insurability without expense to the company.

There has been a considerable increase in the volume of conversions since this program was introduced. For example, in April, 1963, we processed about four hundred conversions involving almost $200,000 of dividend accumulations. However, even if this pace were maintained for a full year, the $2,400,000 converted would represent less than one-half of 1 per cent of our total outstanding dividend deposits of more than $500,000,000.

Another indication of the level of changes from dividend deposits to paid-up additions is the number of policy owners who change their options without converting outstanding deposits, if any. The level this year is three or four times that of last year. The election of the dividend deposit option on new issues has dropped from a rate of more than 90 per cent to less than 80 per cent in April, 1963.

For many years the New York Life illustrated both accumulations of dividend deposits and total paid-up additions. However, periods to make policies paid-up or to mature as endowments were shown only on the basis of dividend deposits until last year, when we illustrated such periods for paid-up additions as well.

The New York Insurance Law requires that the paid-up addition option be included in life insurance policies. In fact, it is generally the automatic option. However, the Law also recognizes that there are some kinds of policies on which it is not feasible to provide this option. We do not permit the option on term policies, annuities, pure endowments, or on certain types of educational endowments.

We generally include the paid-up addition option in substandard policies and use the same mortality basis as for standard policies, except for policies rated up in age. Our conversion program, however, is not applicable to substandard policies.

Because of the substantial mortality and interest gains, paid-up additions under all series of policies issued by the New York Life since 1906 are participating. At the present time the same dividend formula is used for paid-up policies and paid-up additions. This has become possible because of the reduction in handling costs of additions brought about by the introduction of electronic computers.

MR. ROBERT C. DOWSETT: The Crown Life decided that it would be in the best interests of its United States policyholders to change automatically all accumulated dividends to paid-up additions as of December 31, 1962, without any requirements regarding evidence of insurability. Some of the detailed steps involved in the automatic change may be of interest.

1. At the close of 1962 operations our magnetic tape master record file of 320,000 individual policies was processed through a series of special IBM 7070 computer programs.
2. A total of 30,108 policies with a United States branch code and with the dividend option showing as accumulation were sorted out.
3. On each of these policies the interest on the dividend accumulation to December 31, 1962, was capitalized. The total amount on deposit was then used as a single premium to purchase paid-up additions.
4. The magnetic tape master record file was updated to reflect the change, the necessary reserves and accounting entries were generated by the special computer program, and a status card was generated for branch office use showing the revised dividend information.
5. A letter for every policyholder involved was produced, outlining the Internal Revenue Service regulations and advising that the best interests of the policyholder would be served by this automatic change.
6. The work in the computer room was completed on December 29, 1962, and all letters were mailed within the next four days.

The letter showed the total accumulated dividends including interest to December 31, 1962, and the amount of paid-up additional insurance purchased therewith. The policyholder was advised that future dividends would be applied to buy paid-up additions and was asked to notify the company in the event that he did not agree with the automatic change. He was told that if he did this, the action would be reversed. The letter also pointed out that should such reversal be requested, the company would later be asking for the policyholder's social security number in order that the interest credits for 1963 and later years could be reported in accordance with the new law.

The results were most interesting. Out of the 30,108 cases, 528 reverted to the dividend accumulation option; 191 withdrew the accumulations and changed the option to cash; 136 withdrew the accumulations and changed the option to premium reduction; and 84 withdrew the accumulations and let the change to the paid-up addition option stand. In other words, less than 2 per cent of the cases reverted to the dividend accumulation option and just over 1 per cent changed the option to cash or premium reduction. Naturally, we would expect only a small percentage to retain the dividend accumulation option, but we were surprised that the percentage requesting alternative action was so small.

The fact that a large percentage of policyholders accepted the change to the paid-up addition option means that the anti-selection against the company by substandard and uninsurable lives was not too great. On the average it would appear that we did not lose much by ignoring evidence of insurability.

TABLE 1

CROWN LIFE
DIVIDEND OPTION ON POLICIES ISSUED
IN THE UNITED STATES

Option	1963	1962
Cash	2.0%	3.2%
Premium reduction	9.4	13.0
Paid-up addition	37.1	4.9
Dividend accumulation	49.0	78.9
Fifth-dividend option	2.5	0.0
Total	100.0%	100.0%

The change in popularity between the various dividend options on participating policies issued in the United States in 1962 and 1963 is shown in Table 1. This table shows that the dividend accumulation option is still being chosen in almost half the cases. We feel that this is a result of failure to publicize adequately to our field force the advantages of the paid-up addition option and the disadvantages of the dividend accumulation option.

It might be considered more equitable to make paid-up additions participate in surplus distributions. However, we have felt that the expense of providing small dividends in the form of additional paid-up additions or in some other form is too great. By making paid-up additions nonparticipating, we save this additional expense. Theoretically, as a result of this savings, we can provide larger paid-up additions.

MR. PAUL T. ROTTER: In the Mutual Benefit Life, the paid-up addition plan was selected on 49 per cent of new applications in April, 1963.

This compares with 26 per cent during the latter part of 1962. Comparable figures for the dividend accumulation plan were 17 per cent in April, 1963, and 38 per cent in late 1962.

Our fifth-dividend option, which uses the accumulation fund with respect to the dividends not used to purchase one-year term insurance, decreased only slightly, from 9.5 per cent in late 1962 to 8.8 per cent in April, 1963.

For many years we have had a procedure under which dividend accumulations could be applied under the addition plan. The amount of use this has received in the past has been nominal. For example, during the first four months of 1962 accumulations were transferred to the addition plan in only 119 cases. During the first four months of 1963, however, 7,000 cases were so transferred. This took place even though there was no change in our procedures or purchase basis and without any home-office promotion.

We have no present plans for changing the material supplied the field for the preparation of illustrative material, and it is still too early to know to what extent the agents' illustrations may tend to emphasize the addition plan as compared with the accumulation plan. We have always made available material involving both plans.

In our company the same policy form and values are used for standard and substandard business. We feel that any added mortality expense would be more than offset by other expenses if we were to have special contracts to recognize, for example, the additional cost of the paid-up addition option. Hence we use the same mortality basis for the paid-up addition option under both standard and substandard policies. It may be of interest to note that 25 per cent of our substandard cases are on the addition plan, whereas 16 per cent of all cases are on this plan.

MR. WILLIAM H. GILBERT: The Minnesota Mutual is engaged in exchanging automatically, and without evidence of insurability, dividend accumulations for paid-up additions on the policy anniversary in 1963. Thus the transition is being spread over one year and will be completed by the end of the current calendar year.

The insured may forestall or undo this otherwise automatic action by submitting a completed form 3435 showing his social security number. About 8 per cent of our policyholders are taking such action.

With respect to new issues, there is the same shift of emphasis. By urging our agents to stress paid-up additions and by means of the home-office endorsement on the application, we have been able to get the effects of changing the automatic dividend option without reprinting policy forms.

So far as dividend illustrations go, we are still using sales material aimed at accumulations, but stickers remind the agent of the shift in emphasis. When we next change scales, the dividend manual will undergo a complete face-lifting, as will other sales material.

The paid-up addition option is available at standard rates to both new substandard policyholders and to old policyholders to whom the exchange offer is made. It is felt that if this coverage is broad enough, mortality experience in total will not suffer. Inherent in the exchange are certain interest gains which will largely offset premium taxes and selection, as well as the cost of the exchange itself.

Paid-up additions are unsuitable for certain kinds of policies, among them the following: (1) health insurance; (2) annual-premium deferred

TABLE 2

NORTHWESTERN MUTUAL LIFE
PERCENTAGE OF TOTAL DIVIDENDS APPLIED

Calendar Year	To Accumulate at Interest	To Purchase Additions
1910	0.03%	10.9%
1920	0.5	14.4
1930	1.3	10.3
1940	3.2	18.6
1950	3.9	37.1
1960	3.0	37.2
1963 (4 mos.)	2.8	39.1

annuities where the paid-up form is essentially an interest-certain accumulation; (3) term policies where both the risk and the nuisance elements are of concern; and (4) policies owned by trustees under a tax-exempt pension trust.

MR. WILLIAM M. SNELL: The Northwestern Mutual has emphasized the use of the dividend addition option for many years. We began preparing illustrations as long ago as 1912. Consequently, a large percentage of our policy owners use this option, as may be seen in Table 2.

We began preparing illustrations under the accumulation method in 1956. This was done in order that our field force might have material to use in net cost comparisons with other companies—not because of a change in company viewpoint. We hope that ultimately we may discontinue illustrations of dividend accumulations.

If the plan of insurance permits additions, the option is allowed regardless of the rating of the insured. In all instances the standard net single premium is used to determine the amount of the addition purchased.

Some of the reasons for adopting this practice are:

1. We are able to have only one contract for all issues regardless of rating.
2. Differentiating increases administrative expenses and to some extent nullifies the greater equity gained.
3. Additions varying by rating would complicate the preparation of illustrations, because no doubt the agent would in many instances want results showing the amount of additions in force on a substandard basis.
4. The net amount at risk is small under additions and our mortality experience has been favorable. It was felt that the savings in expense by not differentiating would at least equal the extra-mortality cost involved, and experience has borne this out.
5. It would be more difficult to deliver the policy in those instances where the addition option had been illustrated. The agent would have to convince the prospect of the need for a higher premium and also explain the logic of lower additions.

Equity requires us to allow dividends on additions if the cost of following the practice is not greater than the divisible surplus available for this portion of the business. In recent years the interest and mortality gains have been large and the loss from expense has been low. Possibly the fact that we have such a high percentage of policies with additions has caused us to develop procedures for handling this option more economically than would be true if only a few policy owners elected the option. Hence, I would turn the question around and ask, "Does equity permit us not to allow dividends on paid-up additions?"

Last fall we mailed 51,000 notices to policy owners, offering them the right to convert existing accumulations to additions if they could meet minimal underwriting requirements. The offer was not made on substandard cases or on term policies. A slight expense charge was imposed.

About half of the people replied. Of these, approximately 60 per cent accepted the offer and converted their accumulations to additions; 10 per cent withdrew the accumulations and used the money to discount future premiums; 20 per cent asked that the accumulations be left standing; and 10 per cent surrendered the accumulations for cash. We know that many in the latter group bought new policies, but we cannot pinpoint the percentage.

MR. ERNEST J. MOORHEAD: In the New England Life we have felt that the situation justifies our offering as attractive a basis for changing over from the accumulation option to the dividend addition option as we could reasonably permit. This has involved waiving all evidence of insurability below age 70 and making no expense charge whatsoever.

When we started, we indicated that the deadline for taking advantage of this offer was February 28, 1963. Due to the volume of responses and the time required for our agents to inform their clients and have the changes completed, we have twice extended this deadline—first to April 30, then to June 30, 1963.

MR. J. STANLEY HILL: For a long time we have made paid-up additions participating in the Minnesota Mutual Life. Lately, however, we have given this matter a great deal of thought, since the amount of paid-up additions at the end of this year under our program of automatic conversion of accumulations to paid-up additions will far exceed the amount of insurance in force on paid-up policies.

In our letter explaining this automatic change, we have pointed out that in almost every case the cash value of the paid-up additions will exceed the accumulations after the payment of federal income tax at the minimum rate on interest earned on accumulations.

In order to make this true on all policy issues, it is necessary for us to review very carefully the dividend basis for paid-up additions purchased on older policy series, since all purchases are made at reserve rates. For example, the American Experience $2\frac{1}{2}$ per cent policyholders need to receive rather liberal dividends in order to put them on the same basis as the 1941 CSO $2\frac{1}{2}$ per cent policyholders.

MR. JAMES L. LEWIS, JR.: I would like to make a brief comment on two concepts involved here—tax evasion and tax avoidance. In my opinion changing the future dividend option is tax avoidance. This is certainly legitimate. But, when we recommend the changeover of past accumulations to paid-up additions, one wonders if we are helping to conceal back taxes. The answer probably depends upon whether the policyholders who have chosen the latter course have reported interest earned on accumulations as income.