INDIVIDUAL HEALTH INSURANCE

Premiums and Underwriting

A. Premium Bases and Claim Experience

What bases are in current use for computing premiums for (1) disability —long term and short term; (2) basic hospital and surgical; and (3) major medical—comprehensive?

For hospital and medical expense benefits what provision is made to project the effect of rising costs of medical care? Has experience necessitated an increase in premium rates for in-force policies? If so, what has been the effect on policyholder relations? Does recent experience indicate the probability of further changes including variations by geographical class? What evidence is there that the use of deductibles, coinsurance, and inside limits may be effective in controlling claim experience under major medical and comprehensive policies?

B. Substandard

What have been the recent developments in making individual health insurance available to impaired lives? What methods or bases are used to determine extra premiums according to the various medical impairments? Does experience indicate a market for this type of insurance? Has the use of extra premiums proved more acceptable than exclusion riders? To what extent are special policies used for impaired lives?

C. Current Underwriting Methods

To what extent are medical examinations, statements by attending physicians or hospital, and inspection reports used in the underwriting of individual health insurance? Have they proved effective in controlling adverse selections? Is the cost paid by company or applicant? To what extent is the disability benefit under OASDI considered in the underwriting of long-term noncancelable disability benefits?

MR. LOWELL M. DORN: The New York Life has just revised premiums for its disability income policies, which are noncancelable. We based this revision on our own experience and on the Report of the Committee on Experience under Individual Health Insurance, adding appropriate margins for fluctuations and contingencies.

Compared with our old rates, the new rates are (1) for sickness disability, lower, with the amount of reduction increasing with increasing length of elimination period; (2) for accident disability, somewhat higher; and (3) for accident and sickness combined, reduced more for our two best-grade occupational classes than for the lower classes.

The morbidity rates we have used for basic hospital and surgical policies were constructed before the Task Force IV Tables were published but

generally provide for about the same claim costs. Under these policies, our experience in the aggregate has been favorable, resulting in a ratio of actual to expected claims of about 70 per cent. These hospital expense policies provide for a deductible amount on each claim. The deductible is $25 for policies providing up to $15 of daily hospital benefit, $50 where the daily hospital benefit is $20, and $100 where the daily hospital benefit is $25.

Rising costs of medical care do not directly affect to an appreciable extent the cost of the daily hospital benefit, since it is payable at a fixed rate, nor surgical fees, which are generally near or above the scheduled amounts. The costs of both these benefits do increase, however, with increasing use of hospitals and surgery. In addition, rising medical costs directly increase the cost of providing the miscellaneous hospital expense benefit, since the specified maximum is sufficiently liberal to cover most claims in this category in full.

We have provided a margin in our premiums for possible future increases in these medical care costs, partly by a conservative morbidity base and partly by a specific element in the premium. These both are a source of dividends at the present time, since our policies are participating.

When we introduced our guaranteed renewable major medical policies in 1956, we based our rates on the table in Morton Miller's paper, "Gross Premiums for Individual and Family Major Medical Expense Insurance," in Volume VII of the *Transactions*. Our policies were similar to those issued by the Equitable.

We recently analyzed our major medical experience for the years 1956–60 and found claims for males to average 165 per cent of the expected by Miller's table, while those for females averaged 109 per cent. In general, claim ratios at the older ages were significantly higher than the average.

As a result of our unfavorable experience, we found it necessary to increase premiums under existing major medical policies. The new premiums are based on a morbidity table constructed from our experience for males and females combined, excluding the first two policy years. Premium increases for our in-force policies, which were guaranteed renewable to age 65, averaged 55 per cent for males, 30 per cent for females, and 40 per cent for family policies.

As part of the same program, a new lifetime major medical policy was introduced, with some differences in benefits and even higher premium rates than our new rates for in-force policies. Owners of existing policies were offered the choice of continuing their existing policy at the new rates or taking out the new lifetime policy. The response to our program has

been quite encouraging. Of the policyowners so far offered this choice, 60 per cent have continued their old policy at the higher premium rate, 20 per cent have taken out the new lifetime policy, and less than 20 per cent have lapsed. Complaints about increased rates on old policies have been relatively few.

The rising cost of medical care undoubtedly played a part in our unfavorable experience under major medical policies—greater, in fact, than the percentage increases for basic medical coverages would indicate. The increases in medical costs produce a disproportionate increase in the excess of eligible medical expenses over the high deductible. We did not explicitly project this rising trend in setting our new premium rates for either in-force or new policies. However, we provided a general margin in the premiums, which can be used either to absorb increasing costs to some extent or to provide dividends where warranted.

Our in-force major medical policies had a deductible amount of $500 ($300 in a relatively few policies) and a coinsurance factor of 75 per cent. Our new lifetime policies have a deductible amount of from $300 to $750, depending upon the income of the policyowner at issue and a coinsurance factor of 80 per cent.

We believe that proper allowance for income of the policyowner, together with a judicious use of inside limits, should considerably control unfavorable major medical experience. These were both introduced into our new lifetime policy. The effect of policyowner income can be illustrated by some results found in our study. For claims of policyowners with an annual income of $15,000 or less, only 6 per cent involved a daily hospital room rate of $30 or more and only 11 per cent had surgical fees corresponding to a California Relative Value Scale unit of $15 or more (i.e., with a maximum surgical fee up to $1,500 for the most serious operations). However, for claims of policyowners with an annual income of over $15,000, 27 per cent involved a daily hospital room rate of $30 or more, and 32 per cent had surgical fees corresponding to this CRVS unit of $15 or more. Accordingly, our new lifetime major medical policies provide a larger deductible amount for policyowners with larger incomes at issue to offset the otherwise larger claim costs; they also provide inside limits and over-all maximums which increase with income. We use three income classes.

Although deductible amounts and inside limits and over-all maximums are graded by income class, they and the income class limits were set so as to produce premium rates which are the same in all three income classes. This pricing approach greatly simplifies sales and administration.

Sales results on the new lifetime major medical policy appear to be

satisfactory. Eliminating exchanges, current issues of the lifetime major medical policy are slightly lower by number than for our prior major medical policy but are over 50 per cent higher by amount of premium.

MR. IRVING ROSENTHAL: I am including as part of my discussion a table of major medical claim costs, which I am calling the Guardian Individual Major Medical Test Table. We are using this table in a study of our major medical experience. The test table is made up from bits and pieces of evidence, conjecture, and opinion from here, there, and everywhere. But we believe it will be satisfactory for expected claim costs in the study referred to. This table has already been used in the construction of the gross premium scales for our currently issued policies.

I have a few tentative conclusions from this study about our experience for the six calendar years 1955 through 1960. Our over-all experience (adjusting actual claims to the coverage specifications of the test table) was about 90 per cent of expected claim costs. Our 1962 experience is running well over 100 per cent of expected.

As nearly as we can make out, the secular trend in claim costs has been unevenly upward at an average rate of about 5 per cent a year for the kind of coverage we issue. In our case the secular rise is dampened by the effect of inside limits in the coverage such as a dollar limit on hospital room-and-board reimbursement. Without the dampening effect of inside limits the secular rise indicated by our experience would probably average 7 or 8 per cent per annum.

My impression is that the age slope of our actual experience will be somewhat more steep than the age slope of the test table. I believe also that our actual experience on adult females will be moderately higher than indicated by the relationship between females and males in the test table. Some other companies report greater similarity of female to male experience.

We have also done some work on the trend of claim costs by policy duration. At one time we thought that the claim rates for the first two policy years were substantially lower than for later policy years. At this point we have concluded that this was largely an illusion resulting from inadequate provision for claim reserves. We now believe that there is not much difference between the claim experience for early and late policy years except such differences as are reflections of the increasing average age of the exposure and the secular upward trend. Perhaps the claim rates in the first two policy years are 90 per cent of the subsequent policy years as far as the effect of selection forces are concerned.

Of course there is a lot of adverse selection in individual major medical

GUARDIAN INDIVIDUAL MAJOR MEDICAL TEST TABLE—CLAIM COSTS PER ANNUM

($500 Variable Deductible*—No Coinsurance—$10,000 per Disability Maximum—Inside Limits†)

Age‡	Adult Males	Adult Females	Children per Family
25.....	$10.00	$15.00	$ 6.08
26.....	10.77	16.17	8.78
27.....	11.56	17.26	10.80
28.....	12.39	18.27	12.53
29.....	13.24	19.21	13.76
30.....	14.08	20.12	14.50
31.....	14.91	21.01	14.81
32.....	15.76	21.85	14.85
33.....	16.59	22.68	14.67
34.....	17.39	23.52	14.15
35.....	18.14	24.41	13.42
36.....	18.81	25.43	12.61
37.....	19.43	26.51	11.88
38.....	20.01	27.60	11.25
39.....	20.59	28.63	10.60
40.....	21.17	29.53	9.96
41.....	21.62	30.08	9.38
42.....	21.98	30.43	8.91
43.....	22.43	30.79	8.60
44.....	23.10	31.38	8.38
45.....	24.17	32.39	8.22
46.....	26.15	34.52	8.07
47.....	28.22	36.68	7.90
48.....	30.38	38.87	7.67
49.....	32.60	41.08	7.41
50.....	34.94	43.32	7.16
51.....	37.37	45.59	6.90
52.....	39.92	47.90	6.62
53.....	42.58	50.23	6.35
54.....	45.35	52.60	6.08
55.....	48.24	55.00	5.79
56.....	51.26	57.42	5.45
57.....	54.43	59.87	5.06
58.....	57.50	61.91	4.55
59.....	60.55	63.75	3.96
60.....	63.90	65.84	3.33
61.....	67.81	68.63	2.73
62.....	72.58	72.58	2.16
63.....	77.91	77.22	1.61
64.....	83.93	82.78	1.08

* Deductible varies by family income at time of claim as follows:

Income	Deductible
Under $20,000	$ 500
$20,000–$24,999	750
$25,000 and over	1,000

The average deductible actually experienced is only slightly higher than $500.

† Inside limits are: hospital room and board—$25 per day; surgical maximum—$1,000; private nursing—75 per cent of charges; limitations on mental and nervous ailments.

‡ Claim costs for wives and children under family policies are assigned by age of husband; under one-parent policies, costs are assigned by age of parent. Premiums for family policies are intended to include a charge for children even if there are no covered children. Therefore, the above children's costs should be interpreted as applying to children per family including families without dependent children. It is assumed that dependent children will be covered until age 22.

insurance. But this seems to be largely offset by company selection and, most importantly, by company practice in denying claims in the first two policy years where there is strong evidence of material misrepresentation in the original application for insurance. I believe the balance of forces is such that individual major medical claim experience is substantially the same as group major medical experience.

We have had some experience with the reaction of policyholders to a premium rate increase. We instituted an increase averaging about 25 per cent on one of our now discontinued major medical policy forms. We think we did a pretty good job of explaining the reasons for the increase to both field force and policyholders. The increase was accepted with very little complaint and no noticeable effect on the persistency of business. I must say, however, that the increase took place at a time when people generally were receptive to the idea that there was good reason for medical expenses of all kinds to be increasing. I am not sure that they would be as receptive to that idea today.

MR. EDUARD H. MINOR: While there is no published table available at the present time that is suitable as a basis of calculation for the very wide variety of disability benefits now being made available, any company that has had a reasonable amount of experience in this field can construct a table to suit its own operations. Although it is generally believed that primary importance should be given to the cost of disabilities lasting longer than one year, it is really the cost of the first fifty-two weeks of disability, *in the particular company involved*, that will set the pattern of disability rates for all the policies to be offered. Unless a company can forecast with reasonable accuracy the results that will be obtained through its own underwriting staff and agency force and is aware of how closely its own results will follow the disability claim costs of the first fifty-two weeks, as tabulated by the Society's Committee on Experience under Individual Health Insurance, its premium calculations will be in the category of rough approximations.

If a company can predict its aggregate experience for the first fifty-two weeks of disability relative to that of the Committee's report, suitable adjustments may be made for the "select" experience that should be encountered during the first two or three policy years, and a conservative estimate should be made of the "ultimate" experience that may develop after the tenth policy year. Chart 2, on page 120 of the 1961 Reports Number, showing annual claim costs by age for the first fifty-two weeks of disability, provides an excellent comparison of recent, carefully underwritten business, with the old disability rates of the Conference Table. Many

companies might consider it desirable to use the 1955–59 rates shown in the chart as their "select" rates, merging them into the Conference Rates, ten years after issue, as their expectation of the "ultimate" rates.

It is extremely important to have detailed persistency studies by central age in order that all premium calculations take due account of the effect of withdrawals. It will make a tremendous difference if the ultimate rates are to be experienced by only 30 per cent of the policies issued while, in some other company, as many as 50 per cent may persist to the tenth anniversary.

After choosing the most suitable basis of expected claim costs during the first fifty-two weeks of disability for the occupational classifications of any one company, it will be necessary to estimate the annual claim cost for each elimination period and then subdivide this into the frequency and duration that correspond with that annual claim cost previously chosen. The annual claim rate, claim duration, and annual claim cost shown for the seven-day elimination period in Table 5, page 107, of the 1961 Reports Number, could well be used as a starting point.

A claim continuance table will be required to determine the number of claims persisting to the end of the first fifty-two weeks. The comments made on claim termination experience beginning on page 142 of the 1959 Reports Number will be very helpful in preparing a continuance table. In addition to the Conference Modification Report Table, the Group Weekly Indemnity Continuance Table Study, Volume III, page 48, for all ages combined, will be very helpful in estimating the number of claims that may be expected to persist from the end of the first to the end of the third week of disability.

The best available data for the persistency of claims beyond the first year of disability is contained in the Study of the 1930–50 disability experience under life insurance policies, as tabulated in Table 8(e), page 111 for the second year, and in Table 7(b), page 103, for other years (1952 Reports Number).

I am including an illustrative table showing the rates so derived for a benefit beginning at the end of seven days and continuing for a maximum period of five years. It should be noted that the Conference Table claim costs for a five-year benefit are lower than most companies would use for their select rates. Consequently, many express their ultimate long-term disability rates as percentages of the Conference Table, for example, "110% at age 25 to 150% at age 55."

I would like to add that in rate-making for basic hospital and surgical insurance, a major problem is the cost of maternity benefits for female lives under age 30. Claim rates will be from 130 to 175 per cent of the

INDIVIDUAL HEALTH INSURANCE
(Total Disability Benefit; Seven-Day Elimination Period)

AGE	NO. DISABLED PER 100,000 EXPOSED AT END OF			ESTIMATED NO. OF MONTHS OF DISABILITY PER LIFE EXPOSED ($s_{[x]}$)			NET ANNUAL CLAIM COST PER $1 MONTH INDEMNITY (CONFERENCE MODIFICATION OF CLASS III)	
	7 Days	1 Year and 7 Days	5 Years	First Year	Second through Fifth Year	Total	1 Year Maximum (Ultimate)	5 Years Maximum*
35...	10,400	364	170	.106	.113	.219	$0.167	$0.219
45...	12,900	452	242	.157	.152	.309	.203	.283
55...	15,600	546	331	.251	.201	.452	0.281	0.436

* Insufficient for use as an ultimate cost; see comment in text.

population rate, depending on how liberal the benefit is, and the loss experience on the maternity benefit will outweigh many other considerations.

MR. WILLIAM A. FEENEY: Premiums for the Equitable's guaranteed renewable lifetime major medical expense policy were largely based on the experience under the major medical policy we issued from 1954 until this year. The latter policy is the one described in Morton D. Miller's paper in Volume VII of the *Transactions*. Its benefit provisions pay 75 per cent of covered medical expenses in excess of a $500 deductible, up to a maximum of $7,500 per cause. The deductible must be incurred within sixty days, and the benefit period is one year. The study involved 24,000 policies issued in 1954–59 and carried to policy anniversaries in 1960. Total exposure was approximately 110,000 life-years on adults, divided about equally between men and women, and 30,000 years of exposure on units involving one or more children. Total claims amounted to about $2.5 million.

Graduated ultimate claim costs were developed which represented the level of net annual claim costs at January 1, 1958. Although the crude data indicated somewhat higher costs for females than for males at the younger ages, and the reverse at the older ages, the differences were not substantial and the experience for men and women was combined (Table 1).

Anticipated claim costs compared with experience costs were not too far out of line at the younger ages but were substantially understated at

the higher ages. The experience indicated noticeable effects of initial selection, and, in using these claim costs, we adopted a three-year select period, with claim costs taken as 90 per cent of ultimate in the first two policy years and 95 per cent of ultimate in the third policy year.

In calculating premiums for our new policy, the claim costs emerging from the experience study were adjusted for differences in benefit provisions and extrapolated beyond age 65 for lifetime coverage on the basis of available data, mostly group experience. The upward trend in claim costs was allowed for at the rate of 7 per cent a year, not compounded, to the extent that, if this rate of increase continues, it will not be necessary to

TABLE 1

Age	(1) 1958 Graduated Ultimate Annual Claim Costs* (Male and Female Combined)	(2) Claim Costs Used in Original Premiums		(3) Ratio of (1) to (2)	
		Males	Females	Males	Females
25	$ 9.20	$ 7.58	$11.98	1.21	.77
30	11.50	8.96	13.69	1.28	.84
35	14.00	10.59	15.64	1.32	.90
40	17.10	12.51	17.87	1.37	.96
45	22.40	14.79	20.42	1.51	1.10
50	29.80	17.48	23.33	1.70	1.28
55	39.00	20.66	26.65	1.89	1.46
60	46.00	24.42	30.45	1.88	1.51
65	51.30	28.87	34.79	1.78	1.47
Children unit	8.06	11.00		0.73	

* These are cost levels in 1958. To obtain an indication of current cost levels, the above figures would have to be increased 5–10 per cent a year for each year since 1958.

adjust premiums on this account for five years. Although we have reflected income class variations in the premium structure, we have not adopted variations by geographic class or inside limits.

We also used our experience study as a basis for increasing premiums on outstanding policies, and early indications are that there has not been any appreciable degree of policyholder dissatisfaction. We are giving most classes of existing policyholders an opportunity to exchange present policies for the new lifetime policy without evidence of insurability, and many are doing so.

A study was also made of the experience under an older type of major medical policy which restricted benefits to expenses incurred while in a hospital and which also contained inside limits on hospital room-and-board benefits. The over-all experience showed higher costs than those

anticipated, but the limitations on benefits included in these policies did have a marked effect in keeping costs down.

MR. GEORGE B. TROTTA: In a revision of the Metropolitan's policies in 1961, we introduced both a morbidity and a specific secular trend factor into the calculation of our basic hospital and surgical rates. We felt that our statistical data were essentially select in nature and that we had best make conservative assumptions as to ultimate morbidity and secular trend of medical costs.

A secular increase factor of 3 per cent per annum was assumed in group conversion policies issued under the Russo Law in New York State. This was considered a minimum measure of the secular increase in morbidity costs for such policies.

For our regular policies, the total allowance produced by these factors at the end of ten policy years for increasing claim costs was approximately 50 per cent of the early duration select s_x's. However, the effect of taking withdrawals into account in our premium calculations is greatly to discount this relatively high ultimate experience ten years after issue. Note should be taken that a specific company's experience as to the pattern of its policyholder's persistency will strongly influence the effect that ultimate morbidity will have upon its premiums. Of course, the effect is much less at the "senior" ages, where persistency is generally very good.

We have just concluded an extensive investigation concerning the morbidity experience on our comprehensive medical expense policy, a form which provides for coverage of both in-hospital and out-of-hospital medical expenses, with a $50 deductible and 80 per cent coinsurance. Since this policy does not have the inside limits associated with a basic type policy, but has very liberal benefit maximums, we have made a somewhat more extensive provision for recognizing the future increase in medical costs by the manner in which we graded our experienced select morbidity curve into our expected ultimate curve.

Our premium rate changes in 1961 were very well accepted by both the field force and the public.

Effective January 1, 1962, and based on our actual experience and careful review of underwriting standards, we charged higher rates in certain areas (selected areas within Louisiana and Texas plus the entire areas of New Mexico and Mississippi), owing to the sharp discrepancy between their high morbidity costs and those of the remaining areas of our operations. We are now keeping under sharp surveillance our individual agency loss ratios (by type of coverage), and it seems likely that within the next several years we will extend our list of areas requiring a higher premium

classification. It might be noted that, while we have not as yet revised the rates on our guaranteed renewable policies already in force, it is possible that we will, if necessary, exercise our privilege of assessing equitably the cost of insurance in accordance with any geographical factors which influence such costs.

While we have not specified in our contracts that geography might be considered as a factor in future premium reclassification, we do feel it may be just as important as the traditional classifications of age, sex, year of issue, occupation, and marital status. Medical expense insurance is in a very active state of evolution; it would be imprudent to enumerate irrevocably in the original contracts those factors constituting a premium class when the future may provide demonstrations differing widely from our present impressions.

MR. GRAHAM C. THOMPSON: The Security Mutual's current series of participating noncancelable loss-of-time policies, both short term and long term, was introduced in July, 1960. For male risks, the sickness benefit periods now offered are two years, three years, five years, ten years, and to age 65. Accident benefit periods are for lifetime on the ten-year and to-age-sixty-five plans, and the same as the sickness period on the shorter term plans, with lifetime benefits optional. Elimination periods range from seven days to one year for sickness and from zero days to one year for accident. For periods greater than thirty days both benefits have the same elimination period. Elimination periods greater than ninety days are not available for basic benefit periods of less than five years.

The policies are written for four occupational classes, but the maximum sickness benefit for the most hazardous class is restricted to two years; for the next most hazardous class, five years. For female risks the maximum sickness benefit is two years, and the most hazardous occupational class was eliminated. We also write an accident-only policy with five-year or lifetime benefits for male risks and five-year benefits for female risks.

The premiums for all these varieties of plans were calculated from the same basic assumptions, with the net premiums developed from the standard sickness benefit formulae.

The morbidity basis was the following modification of the Conference Class 3 table:

Age at Disablement	Modification
20 through 40....	100% 1st day graded to 165% 360th day and later
45.....	100% " " " " 170% " " " "
50.....	100% " " " " 180% " " " "
55.....	100% " " " " 195% " " " "
60.....	100% " " " " 210% " " " "
65.....	100% " " " " 225% " " " "

The cost of partial disability benefits was determined by assuming continuations of partial disability following total disability.

1941 CSO mortality was used, with 2½ per cent interest.

Accident cost was assumed to represent one-eighth of total morbidity cost and sickness seven-eights.

The net premiums so calculated were considered as basic premiums not necessarily representative of the best occupational classes. Accordingly, they were reduced by 30 per cent through age 35, grading to 17½ per cent reduction at age 60, for the best occupational classification and were increased for the other occupational classes.

The net premium for waiver of premium benefit inherent in the coverages was based on the 1952 Disability Study Benefit 2, Period 2.

Gross premiums were obtained by loading the net premiums for expenses (including taxes) and commissions, plus additional small morbidity loadings for certain cases where we believe our one-eighth–seven-eighths split tends to understate the required premium. These additional morbidity loadings were $2.00 per $100 monthly income for policies with first-day accident coverage and $1.00 per $100 monthly income for policies with a partial disability benefit for accident disabilities only. The calculations were done for quinquennial ages. An osculatory interpolation formula was then used to determine premiums for all issue ages.

The net annual premiums for occupational classes other than occupational Class AAA were obtained by applying the factors indicated below to the net premiums for accident coverage and sickness coverage independently.

Class	Accident Factor	Sickness Factor
AA.....	136%	112%
A.....	184%	128%
B.....	244%	148%

The net annual premiums for morbidity for the sickness and accident partial disability benefit were assumed to be equal to the rates for Class AAA for all occupational classes. The net premium for the waiver benefit was assumed to be the same for all occupational classes.

Premiums for female risks were obtained by multiplying applicable premiums for male risks by factors ranging from 160 per cent at age 20 down to 139 per cent at age 55. These factors were derived from sample test calculations of exact premiums. The female gross premiums for accident only disability coverage are 135 per cent of the corresponding male gross premiums. The premiums for Class H (females not gainfully employed on a full-time basis) are twice the female Class AAA premiums.

To date, the sales and experience of this product have been satisfactory.

MR. RALPH P. WALKER: The Wisconsin National's experience has been similar to that reported for the Metropolitan. Maternity charges have been averaging 150 per cent of population experience for several years, with higher ratios in the early policy years and close to population experience after five years.

With regard to the use of a one-eighth–seven-eighths assumption to split total costs into accident and sickness components, it is well to remember that the slope on accidents decreases with age at the younger ages and is relatively flat for the central ages, with only minor increases until the very old ages, whereas the slope on sickness experience increases steadily throughout adult life, with marked increases after the central ages.

MR. KENNETH J. CLARK: The Lincoln has been selling major medical policies since 1955, giving us enough data to use our own experience in developing premiums.

An investigation of approximately 200 claims and of over-all loss ratios indicated the need for an increase in premium rates. The increase, applicable both to commercial policies issued prior to June 1, 1957, and to guaranteed renewable policies issued since that time, was made effective on the first premium-due date in 1962 but not before the policy's second anniversary.

Of the 9,800 policies scheduled for premium increase, only 5 per cent have so far been replaced. An important step toward favorable persistency and a low replacement rate among these policyholders was the liberalization of benefits and the renewal clause in the commercial policies. Another step was to permit for a limited period of time the purchase of a new policy at attained-age rates without evidence of insurability.

The experience under California issues was considerably poorer than the remainder of the experience. We translated the differential into higher rates for both old and new policies in California and removed from the California market certain plans which we felt simply could not be reasonably priced.

A detailed study of approximately 1,000 claims covering experience through 1960 anniversaries (completed after the mentioned premium changes were made) indicates a continuing increase in claim costs, so that future increases in premiums for both old and new policies seem quite likely.

The ratio of claim costs in California to claim costs in other states was 160 per cent when the deductible was $250 and 145 per cent when the deductible was $500. The area variation was greater for females than for males.

The experience indicated that claim costs under age 50 were higher for females than for males but above age 50 were higher for males.

The relatively stable experience under our basic hospital policies shows the effect of inside limits. Our own experience has also been that low or no-deductible plans providing either major medical or basic hospital benefits have proved more difficult to price and have required greater premium adjustments whenever an over-all adjustment was necessary.

MR. ALTON P. MORTON: For several years the Prudential has issued individual health insurance on an extra premium basis. The use of substandard extra premiums is appropriate for many individuals with moderately elevated blood pressure or other heart and circulatory impairments of moderate degree and individuals who are overweight. We have also applied extra premiums experimentally to other kinds of impairments. An impairment, such as hernia and others of a similar nature, can, of course, be dealt with by using a waiver to exclude the extra risk.

Substandard health insurance underwriting is of an experimental nature in view of the lack of morbidity data to guide such underwriting. We use extra premiums up to a 50 per cent increase in the total premium charge. We withhold from substandard issue one or two maximum benefit plans.

Our latest figures show an approximate 80 per cent placement rate for all extra premium policies. The proportion not taken increases with size of rating. Where we use exclusion riders, we find that our placement rate is approximately the same as for extra premium class business.

MR. CLARK: The Lincoln started its current substandard accident and sickness program nearly six years ago. We issue to applicants with physical impairment ratings ranging from 25 per cent to 300 per cent above the standard level. Because of the experimental nature of the program, however, our issue limits are scaled down rather sharply as the rating increases. Our commercial loss of time plans and our guaranteed renewable for life hospital and surgical plan are issued at all ratings. Noncancelable plans with sickness benefits of thirty-six months or less are issued at all ratings, while our sixty-month plan is limited to ratings of 50 per cent or less. Our major medical plan is also issued at only 50 per cent and lower ratings. As a result, we are able to issue most of our policies on a full coverage basis rather than with exclusion riders.

We employ a rating system in terms of percentages of anticipated extra cost above the standard level. Besides the higher claim frequencies expected from a group of impaired lives, it is necessary to consider length of disability, necessity for hospitalization, amount of medical expenses, and

the effects on claim administration. The impact on accident benefits will differ from that on sickness benefits, and the impact on loss-of-time coverages may differ from that on medical expense coverages.

It is important to design a rating system which will be flexible enough to accommodate differences of this sort and at the same time be simple enough to be practical. We accomplished this by separating the accident and sickness risks for underwriting purposes. The underwriter makes separate assessments of the accident and sickness hazards and assigns separate ratings. A further separation is made between loss-of-time benefits and medical expense benefits.

Judgment analyses of this sort produced our first set of working rules. The additional benefit of several years of operation in the field led to a full health underwriting manual.

The total gross premium charged the policyholder is the sum of three items—the standard gross, the accident extra, and the sickness extra.

A formula method was designed to facilitate computation of premiums by data-processing equipment. A satisfactory formula could not be developed for the commercial loss-of-time policies due to their unequal accident and sickness benefit periods and different combinations of elimination periods, and tables of extra premiums are used.

By using multiples of the gross premium rather than the net premium, additional expense premium is assessed against the substandard policyholders, reflecting the greater underwriting expense and a higher not-taken rate.

The volume of substandard business now seems to have reached a fairly stable level at 7½ per cent of the total by number and 10 per cent by premiums. The agents prefer rated business very strongly over exclusion riders. The declination rate was high at first but was substantially reduced as the agents gained experience. Loss ratios by broad categories of coverages have been at levels virtually identical with those of corresponding standard business.

It is very difficult to develop exclusion riders for individual cases which are clear in their intent and, at the same time, both sufficiently comprehensive to protect the company and sufficiently narrow in scope to be acceptable to the policyholder.

In contrast, a substandard program using extra premiums offers definite advantages. It avoids problems by offering coverage which differs in only one respect from that which has been requested, namely, the price. Not only does the agent retain the key portion of his sales effort, making placement easier, but we also avoid what can be a most perplexing prob-

lem—that of determining whether a particular claim is or is not excluded by the rider language actually used.

An important corollary of the use of extra premiums is a better performance of our social obligations, although for many impairments exclusion riders are the only practical solution.

We do not feel the use of substitute or special policies for impaired lives would be any more satisfactory than exclusion riders.

MR. THOMPSON: With the help of our reinsurers, the Security Mutual recently began the underwriting of impaired lives on an experimental basis. We have been underwriting overweights for some time—they represent about 3 per cent of our issues. In our underwriting guide, filed with the New York Insurance Department, are a number of references where the variety of possible impairment severities precluded a precise rating. The department requested that we supply periodic reports tabulating all such cases with the impairment and underwriting action, including rating imposed.

MR. HAROLD CHERRY: Medical examinations are required for less than 10 per cent of New York Life's health insurance applications. We issue all our accident monthly income and hospital and surgical plans nonmedically. For policies containing sickness monthly income benefits the medical examination rules depend on the duration of sickness benefits, the issue age, and the amount of monthly income benefit.

We recently changed our medical examination rules for major medical policies, coincident with the introduction of our new lifetime plan. Originally, we issued major medical nonmedically at all issue ages. However, experience showed an unexpected sharp rise in morbidity rates and annual benefit costs for men at the older ages. We now require examinations for male applicants over 50.

The attending physician's statement is probably our most important underwriting tool. We call for the A.P.S. not only in connection with specific medical histories but also if the application reveals "check-ups," "routine exams," etc. Our last study of the effectiveness of the A.P.S. showed that in 30 per cent of the cases where it was sent for because of "routine exam," etc., the attending physician reported information that resulted in issuance of the policy other than as applied for.

The costs of the medical examination and the A.P.S. are borne by the company. We have tried various methods of paying the doctor for the A.P.S. Our current procedure, established a few years ago, is to allow the attending physician to set his own fee and send his bill with the statement.

We do this on life applications as well as health. About 20 per cent of the doctors send their statements without requesting any fee. The average fee paid to the doctors requesting a fee has been rising slightly over the past three years and is now between $4.00 and $5.00.

The disability benefit available under OASDI is not presently counted in determining the maximum amount of monthly income benefit which can be issued to a particular applicant. We feel that, as long as disability under social insurance is required to be total and permanent, we do not have to consider this factor in our underwriting.

MR. MORTON: For income-protection policies exceeding $200 monthly benefit, the Prudential requires an examination at all ages.

For hospital expense and major medical plans, we use medical examinations sparingly. Our most useful tool seems to be the attending physician's statement, ordered on about one-quarter of such applications. All examinations and statements are paid for by the company.

Inspection reports are ordered on virtually 100 per cent of all income-protection applications but on only about one out of three of our hospital expense and major medical applications. Most inspections are ordered from the home office on a discretionary basis. We feel this is more effective, since it leaves the field representative unaware of whether or not his applicant is to be inspected.

For higher amounts of income-protection benefit, we use a conservative underwriting limit for total benefits in all companies as a proportion of income. We believe it is then possible to make no direct allowance for OASDI disability benefits. In no situation would the applicant's total benefits, including OASDI disability benefits, approach 100 per cent of his income.

Where total benefits of $200 a month or less are involved, our rules permit a ratio of benefits to income as high as 70 per cent. In not including OASDI disability benefits, we may find that an applicant could enjoy total benefits in event of disability as great as his predisability income in exceptional situations.

However, while OASDI disability benefits claim requirements continue on their present very stringent basis, we feel we should retain the convenience of omitting direct use of these benefits in applying our underwriting limits at all levels of total benefits.

MR. CLARK: The Lincoln's rules for routinely requiring medical examinations are as follows. For noncancelable loss-of-time policies, all applicants over age 40 are examined. For applicants up to age 40, most brokerage business is examined, all applicants for benefit limits of ten years or

more are examined, and applicants for larger amounts of shorter benefit period policies are examined in accordance with a predetermined schedule. For commercial loss-of-time policies, those applying for more than $300 monthly indemnity are examined. For hospital and major medical policies, no routine examinations are required. For all cases submitted nonmedically, of course, we reserve the right to require an examination, and about 2 per cent of nonmedical applicants are examined. In all cases the company pays the examination fee.

Attending physicians' statements are requested in a high percentage of cases, though we have no recent studies as to frequency. The company contemplates payment for these reports, so long as the cost is reasonable. Inspection reports are obtained for virtually all applicants, and, in the case of applications for higher amounts of monthly indemnity benefits, special narrative reports are used.

We feel most strongly that all three procedures—the examinations, the attending physicians' statements, and the inspections—yield valuable information. So far as attending physicians' statements and inspections are concerned, it is easy to see numerous instances in which anti-selection is avoided, since the outside information is not consistent with the information obtained from the applicant and the agent. So far as medical examinations are concerned, only an inference can be drawn, since we do not ordinarily see a concurrent nonmedical application. Nevertheless, I think the same conclusion—that a significant amount of anti-selection is avoided—is inescapable.

MR. THOMPSON: In the Security Mutual, medical examinations are not required for accident-only policies or guaranteed renewable hospital policies. They are required for noncancelable policies if the sickness benefit period exceeds two years, if the applicant is over age 55, or if the amount of monthly indemnity applied for exceeds $250.

Attending physician or hospital statements are routinely requested if the application mentions a "check" or "yearly medical exam" within the past two years. They are also required if the application discloses a chronic illness, or history of illnesses, unless the condition is to be waived via a rider. Even then on occasion statements will be requested to determine possible complications.

Inspection reports are required for noncancelable cases if the amount of monthly indemnity applied for is $200 or more.

The cost of the statements and reports is borne by the company.

Our underwriters believe these statements are an effective selection tool and are almost essential in evaluating potential substandard risks.

We consider OASDI disability benefits as equivalent to $100 of monthly indemnity and add this to the amount applied for in determining whether it exceeds our limits. We do not consider the OASDI benefits when checking our over-all participation limit.

MR. JOSEPH M. DICKLER: Metropolitan makes use of mercantile reports, medical examinations, and statements of attending physicians in varying degrees, depending upon a variety of factors, such as policy form and age of applicant. We took recent samples of our applications for various policy forms and tabulated the data in Table 1. It should be noted that the samples of accepted and declined applications may not be combined.

The main purpose of the mercantile report is to determine the living conditions and general reputation of the applicant. A larger proportion of mercantile reports was found, both for accepted and for declined individ-

TABLE 1

Policy Form	Size of Sample	Percentage of Samples Underwritten with:		
		Mercantile Report (Applications)	Medical Examinations (Lives)	Attending Physician Statement (Lives)
Hospital and surgical:				
Guaranteed Renewable:				
Family—				
Accepted applications	2,133	12	2	8
Declined applications	418	13	3	12
Individual—				
Accepted applications	2,081	12	3	12
Declined applications	364	19	6	25
Comprehensive medical expense:				
Family—				
Accepted applications	1,998	8	1	6
Declined applications	336	10	2	11
Individual—				
Accepted applications	1,474	11	1	8
Declined applications	136	20	5	18
Senior citizen:				
Hospital and surgical—				
Accepted applications	477	1	2	37
Declined applications	137	1	1	42
Accident and sickness loss of time:				
Noncancelable—				
Accepted applications	384	51	7	8
Declined applications	77	66	5	19
Other—				
Accepted applications	453	25	6	10
Declined applications	110	33	3	17

ual applicants, than in the case of family policies. This reflects our practice of almost always obtaining a mercantile report on applicants for individual policies in unstable occupations or substandard neighborhoods.

Among loss-of-time applications, stability of employment and earnings are as important to the underwriting as living conditions and general reputation, and more mercantile reports are requested.

Medical examinations play a relatively small role when considered as a percentage of the number of lives underwritten. Medical examinations are usually obtained when information in the applications, or elsewhere, indicates that it would be prudent to learn more of the applicant's current health status. We anticipate that 30 per cent of such lives will be rejected and that another 30 per cent will be offered coverage subject to an impairment rider.

The medical examination can be used on loss-of-time applications to evaluate the need for a longer elimination period than applied for or a shorter maximum period of indemnity. Also, as with hospital and medical expense forms, it enables us to make decisions as to rider restrictions. These are very important for applicants for disability income coverage aged 45–55, and we require a medical examination of all applicants for noncancelable forms age 41 and over, which explains why a larger proportion is shown for accepted cases than for declined.

The frequency with which the lower-cost statements of attending physicians are obtained is substantially greater than medical examinations. These statements are especially useful, since they provide information from the applicant's own physician, on past and current illness or impairments, and thus pinpoint the need for riders or declinations. A physician's statement frequently reveals that a recent visit to a doctor for a routine checkup was not nearly as innocent as it sounds. We obtain a statement of attending physician for about 11 per cent of lives applying for hospital and medical expense forms excluding senior citizens, and we expect that, of this 11 per cent, 19 per cent will result in declinations and 40 per cent will be offered coverage subject to a rider.

The charges for mercantile reports, medical examinations, and statements of attending physicians are paid by Metropolitan in the vast majority of cases.