UNDERWRITING

A. To what extent is the standard class being broadened by absorbing occupations previously rated or by accepting as standard minor impairments previously calling for a substandard rating? Can general mortality improvement be counted on to counteract any such broadening of the standard class?
B. Is competition lowering substandard ratings and prompting removal or reduction of such ratings to an extent unjustified by the best medical and statistical information?
C. To what extent have underwriting practices been modified because of the *1951 Medical Impairment Study* and individual company studies?
D. Has the use of drugs to relieve hypertension caused problems in the underwriting of blood pressure?
E. Has the issuance of life insurance to highly rated substandard risks proved to be a real service to the public and to the agents? Has the experience as to mortality and expenses been satisfactory?
F. Are removals of medical ratings sufficiently frequent to suggest a greater use of temporary extra premiums?

MR. C. A. ORMSBY, discussing section A, stated that those who are daily evaluating the insurability of applicants for life insurance have no need of a detailed statistical comparison between current underwriting practices and those in effect only a few years ago to confirm their impressions as to the noticeable extent to which the standard class has been broadened to include a number of classes previously rated.

With the possible exception of certain categories of less experienced pilots, he doubted that the industry has become unduly liberal in its treatment of the occupational factor in underwriting. The recent liberalizations in occupational underwriting are justified, primarily because of the marked improvement in general living conditions and the elimination or noteworthy reduction of hazardous working conditions in many industries. The broadening of the standard class to include occupations formerly rated is in part a result of the trend to disregard the smaller extra premiums in recognition of the relatively sizable additional expense incurred in administering them.

It is certain that the industry has appreciably liberalized its standards in the nonoccupational classes, the degree of liberalization varying considerably among the companies. The most common impairments in this connection are ulcers, elevated blood pressure and overweight. The rationale for this liberalization is a mixture of (1) real or fancied competition, which certainly does not seem to be on the wane, (2) recent

studies showing improvement in both standard and substandard general mortality, and (3) the opinion in some quarters that a projection of current mortality trends justifies a broader definition of what classes are eligible for standard insurance on the basis of present gross premiums.

The question as to whether general improvement in mortality can be counted on to counteract any such broadening of the standard class seems to carry the implication that the broadening to date does go beyond the latest experience figures and that the necessary general improvement *is* being anticipated. He thought that preference would be expressed not for an improvement in general mortality to justify the more liberal underwriting but rather for an improvement in the mortality experience of the particular impairment classes that are directly benefiting from the more inclusive definition of what a standard risk is. Equity provides the first reason. Another reason is that if the necessary improvement comes from the particular impairment classes involved, then the required offset is independent of the volume of insurance written on the classes newly eligible for standard coverage. The downward trend in mortality that life insurance has been enjoying for many years may be breeding the complacency which could readily lead to overconfidence in future mortality levels.

MR. W. H. SCHMIDT presented the Mutual Life experience on occupational extra premiums in two groups, extras of $3.75 per thousand or lower, and extras above $3.75. The first group averaged about $2.50 per thousand and consisted mainly of $2 and $3 extras. The second group averaged about $6 per thousand. They computed expected deaths by the basic table used in the *1951 Impairment Study*. In the first category there were $122 million of exposure, $400 thousand of deaths, 179 policies, and the excess death rate was 81¢ per thousand. In the higher group there were $57½ million of exposure, $245 thousand of deaths, 72 policies, and the excess death rate was $1.92 per thousand. In both instances the excess deaths were roughly one-third of the extra premium that had been charged. Based on this experience, they changed their Occupational Manual a year ago. Of about 550 occupations previously rated, they eliminated the ratings on 284, reduced the ratings on another 221, and on only 42 left the ratings unchanged. The change in the schedule was done on a selective basis, resulting in the elimination of almost all of the $2 ratings.

The philosophy of his company with respect to extra premium charges has been that an extra mortality of up to $1 can probably be absorbed without significantly affecting the over-all mortality assumptions used in arriving at the dividend scales. In the recent revision of their Under-

writing Manual as a result of the *1951 Impairment Study*, they tried to follow the same basic philosophy. From the point of view of a mutual life insurance company, it seemed to him that the proper criterion is the one stated above—namely, that any action taken should not be of sufficient magnitude to impair the dividend action of the company.

Whether or not general mortality improvement can be counted on to counteract any such broadening of the standard class appears to be slightly irrelevant. In these days of increasing clerical costs and the necessity of increasing the in-force in order to keep unit costs in proportion, very careful examination of the borderline standard ratings is required. The extra handling and the lower not-taken ratio on substandard business make a liberal action defensible provided its financial soundness can be demonstrated.

MR. W. J. NOVEMBER felt that the subjects covered by sections A, B and C had a certain interrelationship, so he covered them together in his remarks.

The Equitable has not attempted to broaden its definition of the standard class along the lines suggested by section A. However, in keeping with the spirit of the times, they have effected reductions of occupational ratings, but only when considered justified by the experience of the industry or by changes in the occupational hazards. While this has resulted in some reductions to a standard basis where extra premiums had been charged before, the reason is expectation of a standard level of mortality by old definition.

The Equitable has made a rather complete revision of their Medical Underwriting Manual following the publication of the *1951 Impairment Study*. They were guided in this by the results of that study and also by the present knowledge of medical advances. Many liberalizations were effected, but some increases of rating were also made when indicated by the intercompany experience and their own contribution to it. Their build and blood pressure ratings were not modified, pending the completion of the present intercompany study of these physical conditions.

They observed that other companies also made revisions of their medical manuals, but that was entirely to be expected in view of the new statistical data available. It is no secret that the competitive atmosphere which exists today has resulted in changes in company practices that are sometimes mystifying in the light of the facts. He has not sensed that that has been happening in regard to the ratings for physical impairments. The exasperation sometimes felt about a more favorable underwriting offer of another company is probably generated more by different information or by varying interpretations of the same informa-

tion than by differences in the level of rating assigned to a particular impairment.

They have been aware of the significance of the general improvement in mortality on the mortality costs under substandard business. The mortality ratios they have been experiencing over the years on substandard business have remained at a fairly constant level for the different rating classes, which means that the extra deaths have been decreasing. It is possible to give partial recognition to this by an expansion of the standard class, as is suggested in section A. They have taken the broader step of recognizing the improved death rates on substandard business by a general lowering of the extra premium scale. This was done as of the beginning of the current year. The reduction of rates, which was fairly substantial, was arrived at after a careful analysis of the mortality costs on this class of business. They regard such a step as a more equitable recognition of the general mortality improvement than simply letting slightly substandard risks come in at standard rates.

MR. F. G. WHITBREAD of the Lincoln National, in discussing section B, stated that competition does enter into the removal or reduction of some ratings, but this problem is a relatively minor one compared to that encountered with the rating of new applications.

From time to time in the course of normal operations over a period of years, one expects to see an occasional case where some other company has acted more rapidly or has accepted more leniently. These situations may arise out of differences in the information obtained or out of difference of opinion regarding the significance of some aspect of the risk. Competitive action of this kind is good for the industry.

During the past five years, the number of competitive underwriting cases appears to have increased so that at times one has to wonder what has happened to underwriting techniques and to interest in a reasonably satisfactory mortality rate.

Part of the current situation arises from the inherent desire to grow and expand, a desire which seems to be more aggressive at this time. It is difficult for an underwriter not to become liberal-minded when his company is establishing new production records. This has some impact on underwriters of other companies who would not want to be rightly accused of being out of date or unduly conservative. As a result, not only does competition affect decisions but more frequently fear of possible competitive action tends to influence underwriting decisions.

From time to time they have heard it suggested that the cost of securing additional evidence of insurability such as reports from attending physicians should be weighed against possible mortality savings.

This is good advice but caution needs to be exercised in its application. In Ordinary insurance, selection is expected to have some effect for many years. This is evidenced in the material presented by Mr. Sternhell on the New Standard Ordinary Mortality Table which shows the effects of selection to run at least 15 years. There are evidences in the liberal ratings applied in some cases that an urgent desire to issue insurance and perhaps also to save underwriting expense may have resulted in extremely liberal action. With impaired lives, action without complete information can prove costly.

Until fairly recently, one might properly question the stories presented of the favorable actions taken by other companies. Now, no matter how incredible the story of some other company's action may appear, it is not safe to doubt the accuracy of the story.

Another aspect in the problem appears to be that experience has shown that 20 years ago the margins in standard mortality, in ratings and in extra premiums were substantial. Some people, who appear to have learned this rather recently, seem to be assuming that the same situation, and perhaps an even more favorable situation, exists today and that the margins are sufficiently substantial to offset such selection as they may care to exert. They apparently do not understand the effects of the improvement in mortality over the intervening years—that margins in standard business currently issued will arise only from improvement in the current favorable standard mortality and that, while continued improvement in mortality may be looked for at the middle and older ages, improvement at the younger ages will not mean much in dollars and cents. They apparently also have not yet learned that both ratings and extra premiums have been reduced. A progressive attitude toward the insurance of impaired lives is highly desirable, but a lack of understanding of the number of extra deaths per thousand which can be covered by an extra premium of $10.00 per thousand can prove costly. Some improvement in mortality in future years is likely to be needed to offset the reductions in ratings which one expects to make over the course of time upon presentation of evidence of insurability.

MR. G. W. WILSON, in reference to section C, believed that because of the continuing rapid advances in the prevention and treatment of disease, underwriting practices cannot be based solely on past company or intercompany experience. In order to obtain a large enough volume of data to give reliable results the investigation must cover a considerable number of years and during such a period radical changes may take place with respect to certain diseases. For example, the new drugs for the treatment of lung disorders, combined with early detection of the dis-

ease by free X-rays of most of the population, have been so effective that tuberculosis has changed in the last twenty years from a major to a minor cause of death among insured persons. Nevertheless, statistical studies such as the *1951 Impairment Study* are of great importance as a guide in determining underwriting methods. He obtained some general information on the most important recent changes in practice of four other Canadian companies.

The numerical ratings for personal history of tuberculosis were formerly more severe for the young ages and for underweights than for the older ages and those of average weight or moderate overweight. The *1951 Study* demonstrated that moderate underweight represents no additional impairment and that the percentage extra mortality is practically independent of age. In at least three of the five companies considered, the ratings are now graduated only according to severity of the attack and the number of years since the disease was arrested.

The *1951 Impairment Study* demonstrated much heavier mortality for operated cases of peptic ulcers than for those medically treated. As a result some companies considered it desirable to increase ratings which had been reduced in the expectation of improved mortality.

The detailed results shown for albuminuria have been invaluable in demonstrating the need for careful underwriting even where only traces of albumin are detected. In at least three companies, including the Sun Life of Canada, the *1951 Study* has resulted in more detailed classifications and in increased ratings particularly where the albumin occurs in combination with certain other impairments such as casts, elevated blood pressures or history of tuberculosis.

In the past the main items of importance in family history were cases of tuberculosis or insanity and, aside from these, minor credits or debits were allowed for longevity or lack of it. The *1951 Impairment Study* demonstrated very forcibly that two or more cases of cardiovascular-renal disease under age 60 in the family history resulted in substandard mortality experience. Where a family history of this type occurs in combination with overweight, albumin, sugar or a heart condition, a substantial debit is added to the numerical rating varying with the degree of impairment for the other causes mentioned. Where the amount of insurance is substantial they have found it useful to obtain an electrocardiogram.

The results of the *Impairment Study* have had an important influence in granting more favorable terms for many impairments, for example, history of neurasthenia, nephrectomy and glycosuria. It has also altered the type of rating in many instances—for example, from permanent to

temporary extras. In summary he thought it fair to say that the *1951 Study* has had a very marked effect on underwriting practices.

MR. D. J. VAN KEUREN stated that, following publication of the *1951 Impairment Study*, Metropolitan undertook a revision of its medical underwriting rating manual. There were no sweeping changes in the ratings for any major health impairment, although numerous changes were made and in some instances a somewhat different attitude was adopted toward the importance of some disorders.

In general, they felt that the 1951 impairment experience on heart murmurs was in line with previous ratings. However, they made a slight upward revision of the ratings for apex systolic murmurs, particularly at the younger ages where the *Impairment Study* showed rather heavier mortality. Increased ratings were imposed for murmurs accompanied by history of recurrent sore throat or streptococcus infection.

Although experience on nephritis recorded in the *1951 Impairment Study* appeared to be composed of carefully selected lives, they felt that ratings could nevertheless be liberalized, particularly at the higher ages. They discontinued a former distinction by age, and, after two years, the risk is considered to be only mildly substandard, and no rating at all is imposed after 10 years.

Similarly, the rating for nephrectomy due to injury or stone was reduced and the risk may be considered for standard insurance as soon as enough time has elapsed to assure proper functioning of the remaining organ.

With the added evidence of the importance of family history in cardiovascular-renal disease, higher ratings have been imposed when two or more cases under age 60 are reported. The added ratings, when there are significant findings of urinary impairment, blood pressure or in the personal history, have been increased. In the rating for family history of diabetes, no distinction is now made between siblings and parents.

The Metropolitan increased ratings for bronchitis in line with the *1951 Impairment Study* which showed substantially higher mortality than did the medical impairment study of 1929.

Advances in chemotherapy have led to reduction in ratings for tuberculosis unless the disease is far advanced, and to liberalizations generally in the ratings for persons in daily contact with a tuberculous patient.

Increased importance is attached to the strictness with which an applicant is following the regimen of treatment when applying ratings to persons afflicted with diabetes, anemia and epilepsy, and liberalized ratings are now being applied for those following their physicians' orders. Those with diabetes or anemia who are not following a course of adequate treatment are declined.

Lower ratings have been adopted for deafness, pleurisy, nontoxic goiters, certain tumors, skull fractures and gall bladder disorders.

MR. W. A. KELTIE stated that, following release of the *1951 Impairment Study* in June 1954, the Great-West Life reviewed their ratings and extra premiums for each impairment covered by the study. As a result:

1. A number of impairments previously rated are now acceptable within standard classifications.
2. A further group of impairments is now acceptable at lower ratings than those formerly imposed or at extra premiums payable for a limited period.
3. In only three impairment groups higher ratings are now imposed. These groups are certain serious heart murmurs, peptic ulcers with operation, and family history of cardiovascular disease with borderline physical features such as overweight and elevated blood pressure.

In total, approximately one-third of applicants presenting ratable impairments were affected by the change in practice.

MR. A. U. JENKINS believed that anti-hypertensive drugs give rise to a number of problems in underwriting blood pressure. First, they have a tendency to conceal impairments from the underwriter's view. These drugs will usually reduce blood pressure readings but they do not remove or alleviate the cause. Consequently, current blood pressure readings cannot be accepted at face value. Second, even though the problem is recognized, there is still the necessity of assigning the proper rating. While it is generally believed that reducing the blood pressure will prolong life, there is no statistical evidence that this is so, nor do we know the probable extent of any improvement. Then, there is the problem of finding out whether or not a given applicant is being treated with these drugs. If treatment is not admitted in the application, we may not find out about it because the medical examination and other sources of information are not likely to help us. Efforts to develop a test which would reveal the presence of the drugs have not been successful up to the present time. Finally, possible side effects from use of the drugs must be considered. In general, the more effective the drug is in lowering blood pressure, the more likely it is to produce symptoms. Some of the possible side effects are dizziness, blurred vision, hypotension and constipation. There are a number of others, some very serious.

With so many unknowns involved, it is difficult to find a suitable rating solution. However, there are several guideposts which can help. The type of drug being administered is important. If one of the more powerful drugs is being used, it is likely that hypertension is far advanced and serious side effects are a possibility. These risks can be expected to yield a very high mortality.

For the milder drugs, such as those of Rauwolfia origin, a weighted average of current and pretreatment blood pressure readings can be used. During the first year treatment is in progress, current readings should probably be ignored. One year is too short a time to expect any permanent benefits to accrue, and treatment may be discontinued. After the drugs have been in use for five years, double weight might be assigned to the current readings if normal, or a single weight if abnormal, and the result averaged with the pretreatment readings. Suitable modifications can be made for intermediate durations. After treatment has been discontinued for six months, the fact that drugs have been used can be ignored entirely. As these drugs come into more general use, the situation will bear watching from the standpoint of mortality statistics, clinical experience and underwriting requirements.

MR. R. P. PETERSON indicated that the accurate appraisal of an applicant undergoing treatment for elevated blood pressure is difficult and any necessary rating may be subject to misunderstanding by the agent and the applicant. The attending physician generally is not of much help in this situation, since part of his duty is to reassure his patient.

Elevated blood pressure is not a disease but only the symptom of an underlying vascular disorder. Hypertension may be from innumerable causes—nervous influences, thickening of arterial tree (arteriosclerosis), chemical changes in body tissues and blood, hormonal changes (adrenals, etc.), kidney dysfunctions, etc. Depressing the blood pressure does not appear to alter the progress of the disorder. Yet ratings are usually based on the blood pressure readings, because the real cause of the expected excess mortality is seldom apparent.

Among the group of patients receiving anti-hypertensive drugs, (1) some will receive temporary relief only, following which the blood pressure may tend to return to the pretreatment level, (2) some will lack tolerance of the drugs and medication may have to cease, and (3) the remaining group may achieve more favorable blood pressure readings and some prolongation of life may occur to reduce the expected excess mortality. Before judging treated hypertensive cases, an underwriter should have: the level of blood pressure before treatment; the exact nature and amount of drugs prescribed, since a case can rarely be considered if the physician has resorted to extremely potent drugs; and a careful current medical examination, often supplemented by blood pressure rechecks and cardiovascular studies.

Rules of thumb which may be a helpful guide for determining individual ratings because of hypertension might be as follows:

Reduced Blood Pressure	Underwriting Consideration
Within first year	Pretreatment level is main basis
One to three years	Perhaps weight pretreatment level twice and current once
Three to five years	Average pretreatment and current
Five years or more	Underwrite on merits

This assumes the pretreatment level is available and that the workup of the case developed the use of anti-hypertensive drugs. Unfortunately, clues of drug use rarely are obvious, hence additional use of attending physicians' statements might be indicated.

While drugs may control blood pressure levels, currently they do not cure the cause of hypertension. Many individuals experience severe side effects or only temporary relief from the use of drugs. Current underwriting methods should follow the premise that even though blood pressure may be lowered, no real cure has been attained and hence the desired improvement in mortality is still questionable.

MR. W. J. NOVEMBER felt that the use of drugs to relieve hypertension presents a serious challenge to life insurance underwriters since so little is known of the long-term mortality effects of these drugs. Where knowledge of such usage of drugs is obtained before the underwriting action is completed, some adjustment can be made to allow for the probably temporary nature of the relief. In all too many instances, unfortunately, it is not known that the blood pressure reading on the examination has been brought down by the prior use of drugs, and the result is a more favorable rating than would otherwise have been the case. The situation may be serious enough to warrant the insertion of a direct inquiry in the examination form about the use of drugs for this purpose. Unless new techniques can be developed to handle the situation, hypertensives will in time be placing an added cost burden on other policyholders.

MR. E. A. LEW stated that in 1950 the Metropolitan established an additional underwriting classification, designated "Special Class C," to permit the acceptance of risks with a mortality in the range from 355 to 500 percent of standard. The amount of insurance written in this classification has exceeded expectations and it was a factor in decreasing the rejection rate.

The most common types of risk insured in this classification have been cases of markedly elevated blood pressure and of elevated blood pressure in combination with related impairments. In fact, recently almost 50 percent of the policies in this classification have been written on such risks. Some 13 percent of the issue has been on persons with se-

rious heart disorders and other serious cardiovascular-renal conditions, including, among the former, selected cases with a history of coronary thrombosis or occlusion insured only after a considerable period of time had elapsed since the heart attack. About 10 percent of the issue has been on carefully selected diabetics.

Their conclusion is that issuing life insurance to highly rated substandard risks has proved to be a real service both to the public and to the field force. The mortality experience to date, while based on only 63 claims, has been eminently satisfactory—that is, well within the underwriting limits for the classification. As a result of the favorable mortality experience they have materially increased the maximum amounts of insurance they will write in this classification. In order to keep special underwriting costs (such as expensive laboratory and other diagnostic studies) down to a reasonable figure per $1,000 of insurance, their field force was informed that in so far as possible they should canvass only those individuals for Special Class C insurance who need and would be likely to purchase $5,000 or more.

MR. W. A. KELTIE arbitrarily defined "highly rated substandard risks" as those subject to an extra premium of more than 50% of the basic Standard Plan rate, or risks rated to cover over 200% of standard mortality.

The Great-West Life has placed approximately 1% of their total issue in this broad class over the past three years.

Mr. Keltie stated that from the company's point of view, it is difficult to justify accepting these risks, because of underwriting expense combined with the high not-taken rate. Just over one-third of the offers are accepted by the applicants.

However, from the agent's point of view, acceptable offers do represent additional earnings to him. Furthermore, they improve the relations between the agent and the Underwriting Department, since an offer on any basis is easier to sell than an outright declination.

The issuance of life insurance to highly substandard risks is definitely a service to the public when the need for insurance is more important than the price at which it can be obtained. From the policyholder's point of view, the higher the rating, the greater his need for insurance protection. A great many impairments improve with time or ratings are imposed for a temporary period. If his insurability improves, the insured can expect underwriting reconsideration and a reduction in rating at a later date.

The mortality experience of the Great-West on highly rated risks has been satisfactory.

MR. N. F. BUCK said that between policy anniversaries in 1952 and 1955 the Lincoln National experienced mortality slightly lower, relative to the ratings in effect, on business rated for mortality at least 225% of standard than on standard business. However, expenses increase with the rating. An important item is the not-taken rate. Repeated annual studies have shown that on cases rated for 500% of standard mortality the not-taken rate is about five times the rate on standard cases. A study made in 1953 showed that first year expenses for underwriting costs and medical and inspection fees ran about $14 higher, per policy issued, on 500% business than on standard business. These two factors of higher expense and higher not-taken rate combined to produce a first year overhead expense rate, per policy paid for, over twice as high as on standard business. These costs, however, lie within a range that can be covered satisfactorily by appropriate extra premiums.

He felt that if standard policies provide real service to the public and to the agents, then substandard policies must provide even greater service. The applicant in poor health needs insurance even more than does one in good health. Willingness of a company to insure substandard risks broadens the agent's field of prospects and, where a policy is placed, gives the agent a larger commission than on a corresponding standard policy.

MR. E. H. SWEETSER believed that some light can be thrown on the question of the service afforded to the public and to the agents by the issuance of insurance to highly rated substandard risks by considering the proportion of issues to such risks, the not-taken rates among such risks and the lapse rates among these risks.

In a study of New York Life 1955 substandard issues, about 10% of medical impairment cases involving multiple table ratings fell into the three highest Special Classes, that is, into classes with mortality ratings of 240% to 500%, inclusive. Of cases requiring an extra premium for medical impairments, approximately 90% called for annual extras of $3.00 or $5.00 per $1,000, with practically all of the balance being with extras of less than $3.00. With respect to cases substandard for occupation, about 16% of the total number of such cases were issued with an annual extra premium of $5.00 or more. As to aviation, the military area with *monthly* premiums of $.50 or $1.00 per $1,000 overshadows all other aviation extras.

The entire substandard business represents somewhat less than 10% of total issues. It may thereby be concluded that highly rated substandard risks (exclusive of military aviation cases) form a relatively minor part of combined standard and substandard issues. In other words, this

high premium group represents a small portion of the insurance-buying public as encountered by agents.

Several years ago a study was made of not-taken rates on 2,000 consecutively numbered standard policies and a similar number of substandard policies. Among the standard policies where no additional or alternate policies were concurrently applied for, the not-taken rate was about 10%. Among the same type of substandard policies, the not-taken rate was about three times as great. Furthermore, where additional or alternate policies were also involved, the not-taken rate on standard issues increased threefold and on substandard issues, twofold.

It was also found that the not-taken rate increases with an increase in substandard rating, the rate being about twice as high for the highest substandard classes as for the lowest classes.

On the matter of mortality on highly substandard risks, their studies, with very limited data, have shown the mortality experience to be within that provided for in the premiums.

In a study of their substandard issues of 1954, the over-all first year lapse rate was found to be about the same as on corresponding standard issues. There was little variation in the first year lapse rates among the first four substandard classes involving medical impairments. In the remaining two classes the data were insufficient to produce any significant figures.

Business substandard for occupation in the aggregate produced first year lapse rates higher than any other rating class. Occupations requiring extra premiums frequently involve industrial type risks where the higher than standard premiums result in poor persistency.

There are certain unfavorable aspects of substandard business and particularly so on the most highly rated risks. However, in Mr. Sweetser's opinion every reasonable effort should be made to offer coverage to as large a portion of the insuring public as possible. The more a person is substandard the greater his need for insurance protection. In offering insurance to substandard risks a practical limit exists, since the premiums should not be so high as to make the offer completely beyond the reach of the majority of highly impaired risks. The premium rates, however, should take proper account of the higher not-taken rates on substandard business on the theory that this group should be largely self-supporting.

With respect to the service to the agent afforded by issuing insurance to highly substandard applicants, an agent frequently does not know that his client will require a substandard rating until the Home Office underwriting is completed—that is, until after he has already spent a

good deal of time and effort in his solicitation. The issue of a policy, even though on a substandard basis, makes it possible for him to attempt delivery and thereby receive compensation for his earlier efforts in a certain proportion of the cases.

MR. NORMAN BRODIE stated the Equitable of New York has been offering insurance to persons in the 300% to 500% mortality class since September 1951. The number of paid-for policies in this class is in the range currently of 500 to 550 per year, and represents about one-quarter of 1% of total paid policies.

There should be no question about the fact that a service has been provided those insured under these policies and their families. A question might be raised, though, as to whether the availability of insurance to these highly rated risks gives rise to additional expenses which have to be borne by the general body of policyholders. Their experience has not indicated that there is any significant net increase in expenses, if any. It must be recognized that for each applicant who is rated in the 300% to 500% mortality class, an expense of $20 or more has been incurred up to the point of reaching that underwriting decision, which expense is incurred whether the case is declined or the policy is issued. Although additional expenses are incurred in issuing policies and setting up records, and although about 60% of these policies are not paid for, it appears that the total expenses incurred on the not-taken cases is just about equal to the expenses that would have been incurred on the entire group of applicants in this class had they been declined. Additional expense could also arise if extension of the upper acceptance limit led to a significant increase in the proportion of applications submitted on severely impaired lives. They have not sensed that this has happened.

Through 1955 policy anniversaries they have had 15 claims in this class. The number of expected claims on the basis of contemporaneous experience on standard medically examined issues approximates four and, accordingly, the mortality ratio is in the range provided for by the premiums.

With respect to section F, some studies they made a few years ago indicate that the annual rate of reduction or removal of substandard extra premiums is in the range of 2% to 2½%, the percentage being closer to 5% for the early policy durations and grading down to less than 1% for the long durations. Of the cases that were assigned at issue to a percentage mortality class, about one-half of the reductions were due to a change in the person's build, blood pressure or some other aspect of his physical condition. The other half were due to the lapse of time since the original illness for which the individual was rated, no recurrence of

that condition or development of any other adverse physical condition having intervened. The above data do not in themselves indicate that a greater use of temporary extra premiums would be appropriate. They do not recognize, though, that there may be some insureds whose conditions have improved but who have not applied for reconsideration of their rating and have not purchased new insurance from the company, in which event the rating in the old policies would be adjusted automatically if appropriate. In view of this they did at one time look into the matter of using temporary extra premiums for some impairments where numerical ratings decrease with the increase in the duration from the date of illness to the date of the medical examination for the current issue. They found, though, that when reasonable assumptions are made as to the proportion whose condition would not improve, the extra premium that would have to be charged during a limited period to cover the excess mortality in that period and to provide for this deferred mortality became higher than considered acceptable.

MR. F. T. BEASLEY, in discussing section F, thought that whether we use a temporary extra premium for risks now provided for by a permanent extra premium depends in a large measure on the advantages expected to be realized from its increased use. Normally temporary extra premiums are employed where the extra mortality decreases rapidly by duration when expressed as a percentage of standard mortality. Permanent extra premiums are employed where the extra mortality decreases slightly, is approximately constant, or increases with duration when expressed as a percentage of standard mortality. The "bait" that tempts one most to employ the temporary extra premium to a greater extent is the fact that the frequency of request for reconsideration of a rating is much greater with a permanent extra premium than with a temporary extra premium. This increases the cost of administration of this block of business, thus reducing the amount of the net premium available for the extra risk and the amount of margin available.

In a recent review of a portion of their medically substandard business the Equitable of Iowa found that requests for reconsideration were made in approximately 5% of the cases rated with a temporary extra premium, whereas requests for reconsideration were made in approximately 30% of the cases rated with a permanent extra premium. The volume of statistics investigated was not sufficient to establish the true ratios of requests to cases rated, but it was sufficient to indicate that the frequency of requests was much greater with a permanent extra premium than with a temporary extra premium. The reason for the difference in the frequency of requests for removal of ratings is the fact that

the actual experience under temporary extra premiums more closely follows statistical fact than under the permanent extra premium.

Under the temporary extra premium the insured is expected to improve to standard mortality, but under the permanent extra premium we do not anticipate that he will become a standard risk. Some of them will improve, some of them will continue at the same level of extra mortality, but others will become worse. If we had sufficient statistical evidence to predict which fell within each category, we would be in a position to charge a temporary extra premium more frequently—for example, on all those cases where we have seen fit to grant the request for removal of rating.

The most equitable approach is to charge the rate based on the overall statistics and to give recognition to those in the group who are fortunate enough to enjoy an improved mortality rating. The mere charging of a temporary extra premium to cover constant or increasing extra mortality will not necessarily reduce the frequency of the requests for removal of the rating. The crux of the matter is to properly identify those who will ultimately improve and those who will not. For those who will, a temporary extra premium can be charged, but for those who will not, we certainly do not want to charge a temporary extra premium. The actuarially equivalent temporary extra premium is not the answer to the problem.