Underwriting

A. What changes in practice have been made as a result of the recent Build and Blood Pressure Study? What effect has the study had on the use of short-term medical extra premiums?
B. Is there a tendency for companies to liberalize their underwriting standards in the light of recent favorable mortality?
C. What recent changes have there been in nonmedical limits? Does the increasing cost of medical evidence suggest extension to higher ages for moderate amounts?
D. How should income benefits under Accident and Health policies be evaluated in determining the limit of total disability benefits under life insurance contracts?

MR. DONALD J. VAN KEUREN reported that the Metropolitan has made a number of changes in the underwriting of substandard risks at the beginning of this year taking the results of the 1959 Build and Blood Pressure Study into account. They have adopted new ratings for abnormalities of build and blood pressure, and for cases presenting combinations of these impairments with one another or with certain other impairments. They have increased the ratings for overweight men of short or medium height, with the effect of these increases falling more heavily on those who are in their twenties and thirties than on those at the older ages. On the other hand, they were able to liberalize somewhat the ratings for overweights of six feet and taller. While the study showed relatively more favorable mortality for underweights than was found in earlier actuarial studies, little change was needed in the Metropolitan ratings, inasmuch as liberalizations had been made in former years as the importance of tuberculosis as a cause of death had declined. The changes in build ratings cannot be characterized as drastic but must be measured in a few pounds one way or the other.

At the same time that these new ratings became effective, the Metropolitan increased the maximum limit of acceptance to 750% of standard. The effect of this extension into the substandard classes can be gauged by the fact that there are now tabulated ratings for such a person as a male, aged 50 or over, six feet eight inches tall and weighing 403 pounds, but otherwise unimpaired.

In the Metropolitan a separate rating table for women was derived from the results of the build study. For the past few years, they have recognized the lower mortality on female lives by granting a credit of 25 points in the numerical rating. Beginning in 1960, they have made this differential 40 points—another reason why a separate height and weight table was necessary for women. This 40 point credit is granted against all

impairments except those assessed for habits, morals, and certain occupations where grade is a factor.

Since roughly half of the substandard experience for build which entered into the 1959 Build and Blood Pressure Study was submitted by Metropolitan, they feel that they can use the Study as a guide to their ratings with confidence. They do not have the same confidence in using the results of the study on abnormal blood pressure, since their contribution to the substandard experience was about one quarter of the total. However, since the Study showed greater mortality from elevated blood pressure than was reflected in the Metropolitan ratings they have generally increased their ratings on a tentative basis.

In general, the Metropolitan has made no material change in the range of blood pressure readings which they consider normal and not subject to any rating, or those for which they rate only a few points. The new ratings increase much more rapidly with increased systolic and diastolic pressure than was formerly the case.

Mr. van Keuren expressed particular concern with the mounting evidence, including Metropolitan experience, that ratings have been inadequate when elevated blood pressure is found in combination with overweight and renal impairments and that total ratings made up of the sum of the ratings of the separate impairments fall short of the full measure of the mortality. One study showed that ratings assessed as the sum of the separate ratings fell far short of the experience when the total rating falls in the range +20 to +100 and the rating for hypertension is the larger of the two ratings. When the total rating was 20 to 25 points, actual mortality was 178% of standard on 24 deaths; where it totaled 30 to 50 points, actual mortality was 212% of standard on 79 deaths; and where it totaled 55 to 75 points, actual mortality was 222% of standard on 87 deaths.

MR. FRANK G. WHITBREAD stated that he did not wish to appear critical of the results of the Study, but would attempt to explain some of the difficulties with which an underwriter is faced in transposing the results into underwriting classifications. The Lincoln National has not yet made any changes in its underwriting practices as a result of the Study, and will not for a while. Much of the material in the Study is in the standard to moderately substandard range, with very limited information given regarding build groups with mortality in excess of 150%. The Lincoln National research department has been attempting to supplement the findings of the Study by analysis of some portions of their business in the higher mortality range. The second volume of the Study may be helpful in revising underwriting practices.

In the rating of overweight cases, it has become almost traditional for underwriters to apply debits or credits, as the case may be, for unfavorable abdominal measurements or for favorable build, for unfavorable or favorable family history, for plan and in some instances for occupation. The Study covers only one of these aspects, the unfavorable cardiovascular-renal family history. Especially in these competitive times, there has appeared some tendency on the part of some underwriters to discount the import of this feature. In the light of the findings of the Study, where there are debits of any kind for overweight or hypertension it appears essential that adequate debits be assigned for unfavorable family history.

For the purposes of the Study an unfavorable cardiovascular-renal family history is one where there are two or more cases in the family under age 60. This is one of those old measuring rods which has been used for many years. It would be interesting to know the import of two or more cardiovascular-renal cases under age 65 or 70 in the family history or of only one cardiovascular-renal case under age 60 in the family, in these cases where the applicant himself gives early evidence of cardiovascular-renal disease.

The Study is silent with respect to the other traditional tools mentioned, such as unfavorable girth, for which debits are usually added. In some way it would seem necessary to modify the ratings which naturally emerge from the mortality of the Study, so that allowance may be made for some of these traditional underwriting tools.

The Committee quite properly attempted to secure relatively pure build and blood pressure groups. From the material of groups "Without Known Minor Impairments," any case which had a debit of 10 or more for some other impairment was excluded. From the blood pressure results it appears that, in future, debits for hypertension will be more substantial and that they will need to be applied at lower elevations of blood pressure. If this is correct, it appears that the build groups "Without Known Minor Impairments" contain cases which, had the facts been known, would have had debits of 10, 20 and perhaps even 30 or more for blood pressure. At this stage it may be only a matter of opinion what the mortality in these build groups would have been if what is now known to have been borderline, and perhaps even ratable, blood pressure cases had been excluded and from this what the debits should be for relatively pure overweight cases.

As mentioned in the previous paragraph it appears that the mortality in groups with elevated blood pressure is such that lower levels of hypertension will require some debit, and that at all levels some increase in

debits is indicated. It is hoped that those people who find difficulty in believing the results of the Study will particularly note that favorable blood pressure groupings give mortality of 80% to 85% and that they will eventually recognize that what was thought to be an insignificant elevation of blood pressure increases mortality not from 100% to 110% or 115% or whatever the figure is in the group at which they are looking, but increases mortality from the 80% to 85% figure which may be expected with a favorable blood pressure.

With the new antihypertensive drugs it is probably easier to reduce elevated blood pressure temporarily than it was during most of the period under investigation. Were it not for the possibility that these drugs may have some beneficial effect on mortality, it might be considered necessary to make some addition for the easier hiding of hypertension by applicants who may be willing to conceal this aspect of their condition.

Finally, some mention is necessary of the fact that most of the companies which contributed material to the blood pressure study ignored known prior elevated blood pressure findings in submitting the statistical material. The Study does not suggest that these companies ignored such unfavorable information in the underwriting of the cases affected. The statistical procedure followed makes it difficult to arrive at conclusions regarding the mortality of cases without known previous elevated blood pressure findings or the debits which should be applied.

Although the use of short-term medical extra premiums has strong practical advantages in suitable cases, it does not appear to be a practical method where the mortality in a group is significantly higher than standard over any long period of years. With overweight and hypertension, excess mortality appears to continue into the indefinite future, and temporary extra premiums do not appear practical.

MR. WILLIAM M. WHITE, JR. commented that today's highly competitive underwriting climate, together with the generally favorable mortality still being experienced, would seem to have left most companies in no great hurry to make the changes in build and blood pressure ratings which this Study would seem clearly to indicate.

Some have taken steps to curb the unduly optimistic averaging of blood pressures before entering the rating table and to correct the tendency to overlook the presence of impairments such as lesser degrees of overweight, poor family history, small amounts of albumin, and past high blood pressure readings, which, though perhaps not ratable by themselves, have been shown to substantially increase the unfavorable mortality when they occur in combination with an elevated blood pressure.

It would seem that the results of this study should effectively stop the

trend toward more and more competition-dictated liberality. It has certainly provided ammunition for the underwriting executive who would like to follow sound underwriting principles, irrespective of what the competition "has done," "is alleged to have done," or "might do."

Concerning section C, many companies have increased their limits to amounts of $25,000 or $30,000 up to ages 25 or 30, which seems to be reasonable. Because of the relatively high average size policy written by Connecticut General, there has been little or no field pressure for higher nonmedical limits; however, they have made modest increases up to $15,000 below age 30 graded down to $5,000 at age 40. Companies with smaller average sizes would find the rising costs of medical evidence more burdensome and obtain greater advantage by raising their nonmedical limits. The mortality savings resulting from medically examined business rises so sharply after ages 35 or 40 that it would more than offset the expense saving due to higher nonmedical limits at those ages. Apparently no company which did not already issue nonmedical business beyond age 40 has seen fit to extend its limits over that age now.

MR. GEORGE F. McNAMARA stated that the major changes recently made by his company, Mutual of New York, seem to have been effected through selective rate reductions or new products rather than directly through liberalization of underwriting standards. For example, at the beginning of this year they made substantial reductions in substandard premium rates as compared with those adopted as recently as 1957. They also adopted lower female rates for policies of $10,000 or more.

On the other hand, in introducing an insurability rider, they used rather liberal underwriting rules taking into account the especially favorable mortality at ages under 40. And, too, because of a favorable mortality experience as well as increased medical examination fees, they have just adopted more liberal nonmedical rules ($30,000 at ages 0 to 25, $25,000 at 26 to 30, $15,000 at 31 to 35, and $10,000 at 36 to 40).

Those who are active in underwriting have occasion to wonder often of late whether there isn't an industry trend towards liberalization (or relaxing) of underwriting standards, primarily in respect to financial underwriting. Perhaps this trend is attributable more to competition than to mortality improvement, and to the extent that this impression is correct it would seem that some different mortality experiences may be reported in the future.

MR. JOHN PHELPS mentioned that evidence is accumulating slowly that select mortality has been creeping higher in the last 2 or 3 years, possibly because of liberal underwriting.

MR. HARRY M. SARASON described a study in 1927 of suicides at

early policy durations, where it was found that almost all such policyholders had spent a high proportion of income for life insurance. He commented on the human tendency to make underwriting exceptions, at a high mortality cost. In being liberal, the underwriter should allow a credit of 10 or 15 points across the board, instead of "just being liberal," and then at least he would know what he is doing. Mr. Sarason cautioned against trying to underwrite speculation, and advised fear of the intangible factors.

MR. MORRISON H. BEACH noted that several companies have recently increased nonmedical limits for ages under 30, usually from $15,000 to $25,000. The increases over age 30 have been small. The Travelers went to $30,000 through age 25, to $25,000 for ages 26 through 30, and retained the former limits of $10,000 for ages 31 through 35, and $5,000 for ages 36 through 40.

These changes in limits coincided with an increase from $7.50 to $10.00 in the fee for a basic medical examination. In estimating expense savings on nonmedical business the fact that more inspection reports and attending physician statements are obtained on nonmedical business was balanced against the reduced medical department expense on this business, with the conclusion that the only net saving was the medical fee. A $10 fee on all policies underwritten is equivalent to something over $11 per policy paid for.

In determining nonmedical limits the most important single factor is the question of how long excess mortality persists. This appears to vary by issue age. The most recently published intercompany experience, covering the period 1952–1957, indicates that for ages 20 through 29 mortality is normal after two years. This is practically the only study showing such a short duration. In many of the previous studies excess mortality was apparent during policy years 11 through 15. In reconsidering limits for ages under 30, The Travelers took an optimistic view and assumed that excess mortality would disappear after ten years. They used 8% excess mortality for ten years, which produced a single premium cost of $.45 per $1,000.

Balancing this against savings from nonmedical underwriting, they concluded that they could raise the limit to $25,000, in fact to $30,000 for the younger ages of the 20 to 29 age group. Recent adoption of a mandatory nonmedical program should improve this company's nonmedical experience.

For ages 30 through 39 nonmedical mortality was still higher than medical during policy years 11 through 15, so it appears that excess mortality averaging 6% will persist to age 65. The result was a single

premium cost of $2.90, indicating that limits of $10,000 to age 35 and $5,000 for ages 36 through 40 were already liberal.

For ages 40 to 49 the 1952–1957 report indicated excess mortality of over 20% throughout the first fifteen policy years. The per $1,000 cost exceeded nonmedical expense savings, so any extension of nonmedical underwriting to this age range was out of the question.

Although The Travelers relied on a further improvement in nonmedical mortality resulting from the adoption of the mandatory program, they have some reservations on this score. The fact that larger amounts of insurance can now be bought without examination through group insurance, guaranteed issue insurance programs, and guaranteed insurability options, as well as through liberalized nonmedical programs, means that some of the usual aids in screening nonmedical applications will be less useful in the future than now. Nonmedical experience could, as a result, become less favorable. If this materializes, it will be necessary to balance the resulting reductions in contingency margins against the increased convenience broader nonmedical limits provide agents and insureds.

MR. FRED DE BARTOLO said that the American United had used the Society statistics on medical and nonmedical, separating males and females. These indicated over a 20 year period for males .4 per 1,000 extra deaths for issue age group 20–24, but 1.6 per 1,000 extra for issue ages 30–34, 3.84 for 35–39, 8.71 for 40–44, and 18.5 for 45–49. The extra nonmedical mortality for females is particularly high, and the American United has set lower limits for females at the older ages.

MR. JOHN A. MEREU commented on the problem of overinsurance frequently arising in disability underwriting. Companies issuing income disability benefits limit the amount of disability income and waiver benefits to a percentage of earned income with an over-all maximum for income disability benefits which in the London Life is $500 per month. Where the amount of disability coverage an individual can obtain is excessive a bad claims experience would be expected to develop. In particular the average claim duration would be longer because of a greater tendency to malinger.

For some time it has been the practice to take into account the aggregate total and permanent disability benefits in all companies in determining the maximum additional benefit which a company would be prepared to issue. In addition attention has been paid in recent years to disability benefits provided under Sickness and Accident policies which are becoming more prevalent among the insuring public. This is particularly important where large amounts of disability income are involved and where

the applicant is a member of a professional body for whom such coverage is available on a group basis.

As the disability benefits provided under Sickness and Accident policies are often temporary, a number of companies are including only a specified proportion of them, depending on duration, when determining the total disability benefits in force.

The practice of the London Life is to ignore coverage providing accident benefits only and to ignore sickness benefits where the benefit period cannot exceed 26 weeks. Where the sickness benefit period exceeds six months, the percentage of the benefit included in determining the total disability benefits in force if the benefit is noncancelable is determined as follows, according to the benefit period:

1 year	25%
2 years	50%
3 years	75%
Over 3 years	100%

Where the sickness benefit is cancelable the percentage included is one half of the corresponding noncancelable percentage and where the sickness benefit is on a group basis the percentage included is $\frac{3}{4}$ of the corresponding noncancelable percentage.

Occasionally when selling income disability benefits the agent will successfully argue that the sickness coverage which a professional man possesses is inadequate because the benefit is for a limited period only. An application for insurance with additional disability income benefits will be submitted. If the additional benefit applied for would increase the total disability benefits in force over the maximum limits, the application for disability benefits will be either declined or amended to a lower figure. A benefit for 2, 3, or 5 years may be inadequate for the insured but is relatively long from an underwriting point of view.

Naturally dissatisfaction arises, and it is difficult to answer the argument that if the Sickness and Accident benefits had been applied for after our policy the applicant would have been able to secure both coverages.

As a solution to this problem consideration has been given to prorating benefits where the total benefits in all companies are excessive relative to earnings prior to disability. This has the disadvantage of complicating claims administration.

A second solution would be the sale of disability benefits with long waiting periods. Apart from the relatively low demand for such benefits there would be a problem in determining suitable premiums.