TRANSACTIONS OF SOCIETY OF ACTUARIES
1952 VOL. 4 NO. 10

DIGEST OF INFORMAL DISCUSSION

SUBSTANDARD INSURANCE

A. What have been the main trends in recent years in substandard insurance? This question has particular reference to:
   1. Types of medical impairment subject to significantly lower ratings than formerly or no longer subject to a rating and hence now included in the standard category.
   2. Previously declined categories where substandard insurance is now available.
   3. Upward revisions of ratings for occasional special cases.
   4. Increased availability of substandard insurance through changed company policy and broadened reinsurance facilities.

B. What has been the recent history of reduction and elimination of (1) occupational ratings for individual policies, (2) group occupational ratings, and (3) special ratings for the aviation hazard?

C. What progress has been made in providing rated health and accident coverage for substandard cases under individual policies?

MR. A. A. WINDECKER reported that the Prudential had increased its range of acceptable substandard risks from 300 to 500 percent about three years ago. He indicated that recent experience showed that out of 1,000 cases, 888 would be issued standard, 8 would be issued with aviation extras or temporary extras, 64 would be issued substandard in the range 130 to 180 percent, 12 substandard in a range of 180 to 300 percent, and 2 between 300 and 500 percent. The remaining 26 would be rejected, including those rejected because sufficient underwriting information was not obtainable.

While 90 percent of standard policies are placed, the percentage decreases as the degree of substandard risk increases. Furthermore, amounts of insurance tend to be smaller for the heavily substandard cases. Therefore, the distribution by amounts paid for would be somewhat different from the distribution by number of policies issued.

MR. D. S. CRAIG indicated that about three-quarters of the companies doing a substandard business now take cases up to 500 percent mortality—some by way of reinsurance. The reinsurance companies have done a real service in developing substandard insurance.

He reported that the Metropolitan has made numerous liberalizations in medical ratings in the last few years as a result of the extension of substandard limits, the reduction in mortality on many types of medical im-

pairments, and greater knowledge of the experience with substandard risks.

He listed the following as now being considered where they had previously been uninsurable: selected risks under treatment for diabetes; selected risks who have had heart disorders such as coronary thrombosis more than five years ago; selected cases of pernicious anemia; persons who have undergone surgery, after a relatively short waiting period.

Substandard ratings have been reduced for a number of impairments, including diseased thyroid, history of chronic appendicitis, certain types of asthma, fast pulse rate.

Certain cases are now acceptable standard that were formerly substandard, such as certain types of functional heart murmurs, exposure to tuberculosis through coresidence, surgery involving female impairments where malignancy is ruled out, history of pleurisy.

He reported that the extension of substandard limits enabled them to accept practically all legitimate occupations on some basis, including those such as steeplejacks, deep-sea divers, etc.

MR. E. H. SWEETSER indicated that the New York Life was studying their contribution to the intercompany Impairment Study and may make some changes where their experience is of sufficient volume, and would consider more extensive revisions when the results of the intercompany study are available.

He reported more liberal underwriting in certain cases of malarial fever, ulcers, encephalitis, dry pleurisy, hysterectomy, gout, cholecystectomy, and a number of others. He reported that they will now accept pregnant women on a standard basis regardless of the month of current pregnancy, subject in the case of nonmedical to a satisfactory statement regarding present and past pregnancies. Formerly, they required a single extra premium of $5 per thousand and accepted only during the first six months of pregnancy.

Mr. Sweetser said that they had a very satisfactory reinsurance agreement for both standard and substandard which enabled them to issue larger face amounts or with larger amounts of disability or double indemnity benefits than they chose to retain themselves.

About three years ago the New York Life extended their range from 350 to 500 percent on an experimental basis for cases of $10,000 or more on short term endowment plans. The ratings in such cases were determined on the basis of the judgment of the medical directors as there was no statistical experience as a guide. He reported a very high not-taken rate on such highly substandard cases and pointed out that there was likely to be antiselection exercised by those who did accept the offer.

Mr. A. C. WEBSTER expressed the opinion that the whole problem is one of properly pricing the risk to try to insure as many people as possible at a proper rate.

He reported that the Mutual Life (which commenced substandard insurance in 1942) had recently investigated their substandard classes by premium class rather than by impairment and found that the extra mortality they were experiencing was well below that provided in the extra premiums. They did two things: (1) they broadened the substandard classes, and (2) they lowered their extra premiums.

They also investigated their occupational experience and discovered that their extra premiums were more than adequate, and as a result they made a wholesale revision of their occupational manual. In comparison with manuals of twenty years ago, it shows a great many more occupations are now acceptable at standard rates. This is attributed to the improvement in industrial safety, improvement in industrial medicine and, perhaps above all, the improvement in the living standards of the people in the rated occupations.

Mr. Webster questioned whether the general pattern of substandard mortality has changed very much, and whether the absolute mortality in the cardiovascular-renal group, for example, has changed at all. It is true that some impairments, thanks to medical advances, are showing a better mortality. The new impairment investigation may give us a better picture of the relative mortality of various impairments. On the other hand, the lowering of the general mortality has encouraged the broadening of substandard limits and, in addition, underwriters are today a little more venturesome in accepting certain types of risks.

Mr. Webster indicated that in considering Mr. Windecker's figures it is necessary to take into account the percentage of nonmedical business done by a company. The higher the percentage of nonmedical business, the higher will be the percentage of standard risks.

MR. J. R. BEVERIDGE indicated that the Manufacturers Life had also extended their range to about 500 percent mortality. They have also liberalized their underwriting for a number of the types of impairments covered by other speakers. He cited several cardiographic abnormalities which they are now taking, such as right bundle branch block and the Wolff-Parkinson-White syndrome. They are also taking some of the congenital heart deformities. These cover a wide range and the rating depends on the degree of impairment. There is one type of deformity which lately has been treated surgically. They take some before surgery; some of them after surgery, on a mildly substandard basis. They have been taking subarachnoid hemorrhages at the younger ages. They take on a moderate-

ly substandard basis cases of congenital spastic disease—the result of cerebral hemorrhage at birth—with frequently some paralysis. A few cases of disseminated sclerosis have been accepted, but most have been found uninsurable.

Mr. Beveridge indicated they had reduced ratings in many groups, such as, for example, the ulcer group, and pointed out that we may be getting cases classified as ulcer today that were formerly not so diagnosed.

He said they had been resisting growing pressure to be lenient in blood pressure cases; that they had not made any change nor had they any evidence to support a change. Possibly some slight credit may be given for satisfactory cardiograms and X-rays.

They have increased their ratings for far-advanced cases of tuberculosis, but have reduced them for the minimal cases. Also they felt that persons with T.B. histories at the older ages are more highly substandard than was formerly considered to be the case.

He indicated that there are a number of applicants above the usual age limits who, for tax reasons, are able and willing to pay substantial premiums. They have been taking some of these cases where the size is substantial enough to enable them to have special examination procedures.

MR. GEORGE RYRIE reported that the Canadian Association of Actuaries had assembled some data with reference to occupations, on the basis of which the North American Life had reduced their occupational ratings to about two-thirds of the former scale, with a minimum extra premium of about $2. The former scale varied from $3 to $10 on Life plans. Reductions were made effective automatically on in-force policies on policy anniversaries.

Such a straight percentage cut in ratings leaves the occupational schedule as extensive as ever, and an extensive schedule is desirable so that the agent need never be in doubt about the treatment of a particular occupation. Mr. Ryrie pointed out, however, that about half of their ratable occupations were at their minimum extra of $2, and that the establishment of a $3 extra minimum would eliminate these, thus saving considerable space in their occupational schedule, and would remove some underwriting difficulties.

If the company also explained to the agents that an occupation could be assumed to be standard unless clearly identified in the extra premium schedule, it would simplify occupational ratings considerably.

MR. C. M. STERNHELL discussed item B (3) with respect to military pilots. A study in 1950 of the New York Life's experience with such risks was made to try to determine whether age or hours of flying experience was the primary basis for classification. He cited reports of the Aviation

Committee over a period of years, which first had supported a schedule based on hours of experience, then indicated that age appeared to be more significant, and had more lately reverted again to supporting a schedule based on hours of experience. He gave the accompanying table, on the basis of which they concluded that the previous flying experience was much more significant than age in determining proper rates:

NEW YORK LIFE EXPERIENCE ON POLICIES ISSUED WITH AVIATION EXTRA PREMIUM TO PILOTS IN THE UNITED STATES ARMY, AIR FORCE AND NAVY (INCLUDING MARINE CORPS)

ISSUES 1946 TO 1949 EXPOSED TO DECEMBER 31, 1949

PREVIOUS FLYING EXPERIENCE AT ISSUE	ATTAINED INSURANCE AGE AT BEGINNING OF CALENDAR YEAR OF EXPOSURE							
	Under 25		25–29		30 and over		All Ages	
	Fatality Rate per 1,000	Number of Aviation Fatalities	Fatality Rate per 1,000	Number of Aviation Fatalities	Fatality Rate per 1,000	Number of Aviation Fatalities	Fatality Rate per 1,000	Number of Aviation Fatalities
Less Than 300 Hours........	48	(8)	101	(8)	44	(1)	63	(17)
300–799 Hours..	16	(9)	16	(8)	19	(1)	16	(18)
800–1,199 Hours	16	(6)	8	(8)	8	(2)	9	(16)
1,200 and over..	11	(5)	9	(37)	6	(15)	8	(57)
Total*.....	17	(35)	10	(68)	6	(20)	10	(123)

* Includes experience on cases where previous flying experience was not specified.

This study was based on number of policies. A similar study based on amounts of insurance showed practically the same results. Separate studies for pilots in the U.S. Army or Air Force and for pilots in the U.S. Navy (including Marine Corps) showed the same general picture.

Mr. Sternhell stated that the extra premiums adopted late in 1950, based on this experience, provided full aviation coverage only within the home areas. In the earlier part of this year their practice was liberalized to permit limited amounts of insurance with worldwide aviation coverage without a war clause to certain military pilots presenting only a nominal military aviation hazard.

He said they had recently carried forward their experience from this table through the years 1950 and 1951. This continued to show that flying hours of experience was more significant than age. He hoped that the Aviation Committee would consider analyzing the data on military

pilots in even more detailed groups by number of flying hours than had been possible in this year's report.

MR. A. J. MOORE discussed item B (2). He indicated that a comparison of group life insurance occupational schedules of his company showed fewer items for which ratings were required than a number of years ago and lower average extra premiums. For example, the average extra premium called for under their present table is $1.67 as compared with $2.30 fifteen years ago. The older list contained ten items of more than $2, whereas today's list shows only three. These are ratings applicable to groups under which the disability benefit is the waiver of premium form. Where the maturity disability benefit is offered, in many instances a higher occupational extra premium is required. For example, an additional extra premium of $1 is required in seven items under his company's current list of occupational extras.

MR. M. D. MILLER discussed section C. He indicated that in discussing this topic it would probably be well first to explain the difference in terminology and practice that exists between the life and the accident and health business. In life insurance, perhaps 90 percent of the applicants fall into the so-called standard class and are issued policies at standard rates. The remaining 10 percent who are charged additional premiums are called substandard risks. The term substandard is applied regardless of the nature of the hazard giving rise to the need for higher premiums, that is, whether it be occupation, medical impairment, travel, or other, and regardless of whether the increased premium is charged as a flat extra, an advance in age or by means of a special mortality class.

In the accident and health business, on the other hand, the term substandard is not used, at least in the same sense as in life insurance. Occupation is the fundamental factor in premium rating for a plan of individual accident and health, and applicants are commonly classified according to occupation into about five or ten classes covering a wide range of morbidity. The distribution of business among these classes is much more nearly equal than in the case of life insurance. For those companies who use a ten classification system, no one class will include more than perhaps one-third of the business. The issuance of a policy in any one of the occupational classifications which a company is prepared to write is regarded as standard operating procedure and the policy as a standard issue.

With regard to occupation, the progress made by the accident and health business in covering a broader and broader range of occupations has been good. Few individuals today would find it impossible to secure individual accident and health coverage because of occupation.

It is in the provision of coverage for lives where higher morbidity may

be anticipated on account of physical condition or medical history that the pattern and the progress of the accident and health business differs so strikingly from that of life insurance. The accident and health business has not made any real attempt to provide full coverage in these cases by charging an additional premium. Instead, the practice has been followed of using a waiver or exclusion rider to eliminate from coverage any potential liability for benefits arising out of the condition representing the increased hazard. For example, a policy might be issued to a person with a history of a hernia which would exclude coverage for any loss caused or contributed to by the hernia condition. In this way, the company is able to issue a policy at the same premium rate as would be charged a person where the extra hazard was not present.

Although exclusion riders have made it possible to issue substantial volumes of protection which might not otherwise be available, they are not an answer to the problem of insuring medically impaired risks, but are really a means of avoiding the problem. They leave the insured without protection against the hazard which has the greatest likelihood of loss. They result in difficulties of claims administration, misunderstanding of coverage, mistrust of the accident and health business, and consequently contribute to poor public relations. It would be better for all concerned if full coverage could be provided at an extra premium.

He said he did not mean to brush aside the difficulties involved in providing full coverage. Essential differences between accident and health insurance and life insurance make it very difficult to assess the extent of an impaired risk in the case of the former. The widespread use of nonmedical applications for accident and health insurance introduces problems of classification and identification of impairments. The variation in company policy forms and practices interferes with the homogeneity of data. Consequently, there is little or no experience available as a guide. If a solution is to be found, however, a beginning must be made. Actuaries could make a tremendous contribution to the consideration of this matter, as they already have in connection with substandard life insurance.

The importance of accident and health insurance continues to grow. He said he would like to suggest, in fact to urge, that the Society of Actuaries establish an Individual Accident and Health Morbidity Committee. He said John Ryan made a similar suggestion at the Spring meeting in Chicago earlier this year. Such a committee, working with other groups in this field, would make it possible to bring the knowledge, experience and training of the actuary to bear on the problems of experience compilation and statistical analysis for individual accident and health insurance. The committee might help to begin making inroads into the problem of provid-

ing full coverage for physically impaired lives by the planning of studies or experiments designed to produce some experience. An analysis of declined applications and cases issued with exclusion riders might suggest an area which could be profitably investigated and in which progress could be made.

In making this suggestion, Mr. Miller said he was fully aware of the extensive work being done in this field by others, principally through the accident and health trade associations. He said he did not mean that their efforts should be supplanted or duplicated by an actuarial committee, but assumed that the actuarial committee would work together with them.

PRESIDENT HOLMES assured Mr. Miller that his suggestion would receive the careful consideration of the officers and Board.