

**TRANSACTIONS OF SOCIETY OF ACTUARIES  
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**GENERAL**

- A. 1. What extensions have been made in nonmedical selection and why?  
2. What determines maximum amounts written nonmedically at various ages? Does experience indicate that nonmedical business can be written satisfactorily above age 40?  
3. How are nonmedical limits (also retention limits) applied to the juvenile estate type of policy?
- B. In view of the fact that many companies are now charging nonparticipating premium rates which are lower than the CSO 3% Commissioners Reserve Method net premiums at the higher ages at issue, is it not time that a new mortality table be made permissive for valuation or that the requirement of deficiency reserves be eliminated?

MR. A. N. MATTHEWS reported that the greatest expansion of non-medical underwriting has occurred since 1940. Approximately 57% of new ordinary policies sold in 1950 and two-thirds of those in 1952 were on a nonmedical basis. This expansion has resulted principally from increases in amount limits but greater liberality in extending the nonmedical privilege to agents and extension of nonmedical selection to certain cases involving occupational hazards, build, and morals have been contributory factors. On the other hand, upper age limits have generally been reduced.

The average top nonmedical limit increased from the \$2,500-\$3,000 range in 1940 to \$4,000-\$4,500 in 1945 and is now close to \$8,000. These increases have resulted from the shortage of examiners, the increased cost of examinations and the increase in average size of policies.

In the early days of nonmedical selection it was common practice to apply the top limits up to age 45 and even 50. However, a current survey of 105 companies revealed that 16% allow the top limit to age 30, 51% to age 35, and 28% to age 40. No doubt this reduction of age limits has been brought about in large measure by the increase in amount limits, as well as by past unfavorable mortality experience at ages over 40.

MR. E. A. GROSSMAN stated that the Union Labor Life, in addition to regular nonmedical rules, has special nonmedical rules for individual policies issued on lives of the members of a union for which mass underwriting is employed. The amounts of insurance are determined by a formula that precludes individual antiselection. Underwriting decisions are based on inspection reports and the company's specialized knowledge of the risk.

MR. R. C. BAILEY pointed out that in order to meet competition a small company must have nonmedical limits approaching those of the larger companies. Since the trend is toward nonmedical limits of \$10,000, a small company might find itself in the anomalous position of having its nonmedical limit approximate its retention and also be out of line with the average size of its policies. Two saving features in this situation are, first, that the small company operating in a limited territory can expect to insure a cross section of the population and thus benefit from the improvement of general population mortality; and, second, the small company's field force can easily be reached for instruction and control in the matter of field underwriting.

The Wisconsin Life recently extended its nonmedical selection by providing that a person who qualifies for standard insurance on the basis of a medical examination is again eligible for the full limit of nonmedical insurance. He felt that amount limits should be lower on female lives than on male lives because insured female lives did not represent a cross section of the population.

MR. G. R. BINGHAM expressed the opinion that the proper nonmedical limit is a function of the examination fee, the purchasing power of the dollar, the distribution of the company's policies by amount, the caliber of its agency force, and possibly its size, objectives, and surplus position.

The nonmedical limits of the Northern Life were last increased in 1951, the top limit now being \$7,500 in one year and \$10,000 since last examination, available to males aged 15 to 40. The company has refrained from adopting a straight \$10,000 limit because of a belief that the larger policies and reduced unit medical costs would not offset the added mortality. The company's experience bears out the findings of larger companies and groups of companies that business cannot safely be issued on the nonmedical basis at ages over 40.

With regard to the juvenile estate policy, MR. MATTHEWS commented that there is theoretical justification for applying regular nonmedical limits to the initial amount of insurance, but that in practice it is not unusual for companies to reduce the limits to one-half or one-fourth of the regular limits. Both MR. BINGHAM and MR. BAILEY indicated that their companies do apply reduced limits. Mr. Bingham's company uses reduced limits for the initial amount of insurance, while Mr. Bailey's company applies its regular retention limits to the ultimate amount. MR. S. F. CONROD, Chairman of the Forum, mentioned the practical problem involved in giving weight to more than the initial amount of insurance for nonmedical purposes when the agent receives volume credit for only the initial amount. He stated that the Loyal Protective used the initial

amount of insurance as the basis for determining the amount that may be written nonmedically.

MR. A. L. BUCKMAN said that the problem posed by section B is very serious in the case of nonparticipating \$5,000 or \$10,000 minimum Ordinary Life policies. He presented figures based on the present value method of Harwood Rosser (*TSA III*, 159) showing that on a \$5,000 policy issued at the CSO  $2\frac{1}{2}\%$  CRV renewal net, the margin, based on the Beneficial Standard Life's experience factors and  $2\frac{1}{2}\%$  cash values, ranges from \$4.86 per thousand at age 22 to \$61.73 per thousand at age 62. Even if the gross premium were reduced to the CSO  $3\%$  CRV renewal net, the margin at age 62 (on the same basis as above) would be \$53.47 per thousand.

These margins, he said, demonstrate that a reasonable gross premium scale would have rates higher than  $2\frac{1}{2}\%$  net rates at the younger ages and lower even than  $3\%$  net rates at the older ages, despite the fact that  $2\frac{1}{2}\%$  cash values are provided for. However, if such scale were adopted, deficiency reserves would be required. A company that did not care to assume this additional strain on surplus would have to charge higher premiums and give lower cash values than it was otherwise prepared to offer. There is the paradox that if Company A charges a net  $3\%$  CRV premium, grants  $2\frac{1}{2}\%$  values, and sets up  $2\frac{1}{2}\%$  CRV reserves while Company Z charges the same rates but values at CRV  $3\%$ , then Company A, despite the higher reserves it is already carrying, is also compelled to carry additional deficiency reserves!

Mr. Buckman advocated, as a more equitable deterrent to inadequate premiums, the use of the lowest net premium determined by a current legal reserve basis, rather than the net premium on the actual reserve basis of the policy, as the criterion for deficiency reserves. He also favored the additional device of using a more modern table but recognized that, in view of improving mortality, relief so afforded would be temporary.

MR. J. M. WOOLERY deplored the requirement for deficiency reserves but thought it unlikely that the law could be changed to provide for a more realistic test of the adequacy of reserves, such as a gross premium valuation. He suggested the use of  $3\frac{1}{4}\%$  interest rather than  $3\%$  as a reserve basis; this would tend to eliminate the necessity for deficiency reserves and would also reduce surrender values, which, he believed, are too high. It was his opinion that the interest earnings of many of the smaller companies would justify such an increase of interest assumption. He realized that a nonparticipating company should have contingency reserves against the possibility of lower interest earnings, but felt that these funds should neither be added to the policy reserve nor be paid to withdrawing policyholders.