TRANSACTIONS OF SOCIETY OF ACTUARIES
1955 VOL. 7 NO. 18

INDIVIDUAL ACCIDENT AND SICKNESS INSURANCE

A. What problems will arise in furnishing data to the Committee on Experience under Individual Accident and Sickness Insurance? How may these problems be solved?

B. To what extent is the ratio of actual to expected claims used as a measure of claims experience instead of the traditional ratio of claims to premiums?

C. What contractual and practical problems arise in policy changes involving an increase in benefits insured and how are these best solved?

D. What group valuation methods have been found desirable in computing the reserves for noncancelable loss-of-time coverage?

MR. T. H. KIRKPATRICK, Chairman of the Committee on Experience under Individual Accident and Sickness Insurance stated that the Committee has developed a simple and workable plan for collecting and compiling experience for preparation of intercompany morbidity tables, which would soon be put into operation. The tentative program, which has deliberately been streamlined to minimize the work of participating companies, is to prepare two tables covering total disability only—one covering accident and sickness combined, and one covering accident. For the first two years of disablement the tables will be in the same form as the Conference table showing at each age the amount of disability per year per 100,000 exposures; thereafter r_x values and disabled life annuities will be provided.

The need for statistics showing the effect of age was stressed, and it was stated that the Committee would welcome any contribution from individual companies. Companies having unanalyzed statistics, even covering experience under a single policy form or in a particular area, were encouraged to prepare morbidity tables and make them available to the Committee.

MR. B. J. HELPHAND, in discussing section A, pointed out that many companies obtain statistics on exposures from punched cards which are primarily designed for premium and commission accounting. In order to obtain all the information needed for an intercompany study those companies would be confronted with the problem of preparing and maintaining a special statistical card file of in-force business. He also called attention to problems such as the handling of partial disability indemnity where such is paid under a claim, the question of whether standard type risks and industrial risks should be thrown together in one study, and the uniform handling of compromises and rescissions.

MR. J. F. MACLEAN stated that Bankers Life of Nebraska has set up a file to provide comprehensive statistics for the basic coverages included in eight different accident and sickness policies which the company issues. Riders added to basic policies are identified by codes, and special investigations will be required to determine experience on such riders.

MR. W. VANB. HART stated that actuaries who have been accustomed to thinking of mortality rates as something tangible and objective, or at best contained within a reasonably narrow band, will have to learn to think of morbidity rates as rather something exceedingly elusive—determined far more by underwriting and claim standards, and sales patterns of the company concerned, than by merely the laws of chance. On the other hand, in many accident and health coverages, a relatively small premium volume gives surprisingly stable results.

Regarding section B he noted that a twofold index, of (*a*) claim frequency and (*b*) average claims, would be preferable to the traditional loss-ratio approach, although the latter is still the prevailing measuring rod in many companies. Despite its shortcomings, the loss-ratio approach is convenient and not unsound for benefits which do not vary greatly by age, or where the assumption can be made that the average age is a slowly varying quantity.

MR. J. A. SINGER, of the Prudential, pointed out the following problems in furnishing data to the Committee on Experience under Individual Accident and Sickness Insurance: (1) Need for a comprehensive statistical system; (2) estimating liability on open claims, especially for companies with limited experience; (3) submitting data on a policy year basis if records are kept on a calendar year basis, or vice versa; (4) submitting data in form requested in view of wide variation in details of Accident and Sickness coverage.

He described the Prudential punch card records which include, for valuation and statistical purposes, a detail card for each life and a summary card for each year of issue, plan, sex, 5-year age group and also, on loss-of-time plans, for each elimination period and occupational class. The summary cards show the number of policies, number of lives, amount of benefits and amount of premium converted to a monthly basis. For claim statistics and calculation of liability, a card is punched for each claim payment, showing the policy data appearing on the valuation statistical card as well as the claim details such as year of incurral, duration of disability and amount paid for each type of benefit. When the claim is closed, these detail cards are combined to give one summary card for each claim.

MR. J. J. OLSEN, JR. stated that Prudential, in order to test the adequacy of assets share morbidity assumptions, obtains ratios of actual to expected claims at the end of each calendar quarter. Expected claims are obtained by applying assumed net annual claim costs to exposures determined from the valuation statistical cards.

He pointed out that ratios of claims to premiums provide an index which may be used to some advantage if obtained separately by age, sex, duration, plan, etc. Such ratios on over-all basis are of questionable value except for companies which have been selling accident and sickness insurance long enough so that distribution of their business by age, duration, etc., remains fairly constant from year to year. The traditional loss ratio fails to give any accurate indication of how the actual rates of morbidity being experienced compare with the morbidity assumptions on which premiums are based.

Mr. Olsen reported that Prudential in computing reserves for noncancelable loss-of-time coverage combines all occupation classes for each year of issue, but values policies with different duration of sickness benefits separately. For each duration of sickness benefits, cards are sorted by 5-year age groups. The full preliminary term method is used and reserve factors are based on the Conference Modification of the Class 3 Disability Table in combination with the CSO Table at $2\frac{1}{2}\%$. The assumption is made for all modes of premium payment that the premium waiver benefit is approximately equivalent to increasing the monthly income benefit by the amount of one month's premium. To arrive at the total reserve including that for premium waiver the reserve factors are applied to the sum of the monthly income benefit and the premium converted to the monthly basis. Although the company issues policies with elimination periods of 1, 2, 4, 13, 26 and 52 weeks, reserve factors are based on an elimination period of one week. The reserve is then adjusted by use of a set of factors, one for each combination of the year of issue and sickness indemnity period.

The adjustment factors for a given year of issue are determined by applying to the June 30 in-force of the next calendar year the correct reserve factors for each elimination period and determining the ratio, for each sickness indemnity period, of the correct reserve to that obtained by using one-week reserve factors for all elimination periods. The factors for this year of issue are used for five years and then recalculated.

MR. A. L. BUCKMAN of Beneficial Standard Life commented in regard to section C that pre-existing illness exclusions or waiting periods for specific benefits create problems when benefits are increased by means of a policy change. His company found a satisfactory solution by issuing a second policy for the additional amount of benefit, using the same policy number with a letter suffix and billing both policies in one premium notice.

MR. G. C. THOMPSON, in commenting on section D, stated that Security Mutual writes noncancelable loss-of-time coverage providing 1, 2, and 10-year indemnity with optional lifetime accident indemnity. Waiting periods on accident indemnity range from 0 to 90 days and on sickness indemnity from 7 to 90 days. A study indicated that issues tend to concentrate around a specific waiting period, namely 8 days for the 1 and 2 year plans and 30 days for the 10-year plan. A further study indicated that reserve factors based on these waiting periods were satisfactory for the current distribution of business.