

PATTERNS OF SERIOUS ILLNESS INSURANCE

BY

MARK KORMES

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DISCUSSION BY JOHN R. BEVAN

Over the years, the contributions to the Society Proceedings on Accident and Health matters have not been in proportion to the emerging rate-making problems and to the developments of actuarial interest in this field. Mr. Kormes, however, does not share this responsibility since the paper under discussion is the second one he has authored on the general subject of coverage for catastrophic disabilities.

Although his paper and the statistical tables therein cannot be used directly for rate-making purposes, there is included valuable data which provides a general background for expected loss patterns. By the word "patterns" is meant such significant studies as the nature of chronological loss development, the distribution of losses by size of claim and the incidence of losses by type of medical expense. The availability of such data can be of assistance to the actuary in the pricing of and the reserving for the many complex forms of coverage in use today by the industry.

Let me preface my further remarks with an observation to the effect that actuaries are not readily satisfied with data presented them. Statistical material may be in large enough blocks for full credibility but may not be homogeneous; it may be homogeneous but not credible. It can be recent but too thin, or broad and stable but unresponsive to current trends. Dissatisfaction on any of these counts often leads a Bureau actuarial committee to ask the staff to obtain more data while keeping the matter on the agenda. In keeping with such tendencies of the actuary, I found myself dissatisfied with some of the statistical data in this paper in the following respects:

Generally, ample evidence is available to demonstrate that medical costs for this type of coverage vary by age, sex, geographical area, income and by type of protected person, i.e., employee, spouse and child. Those of us engaged in rate forecasting for other than Blue Cross companies have typically introduced rate differentials for all these factors. In this study, however, no such stratification is attempted although it is readily conceded that the income and area factors are not as important in a Blue Cross study confined to one state and to specified income groups. Thus, the data are applicable primarily to the Blue Cross flat rating approach.

In all probability the statistical system in use by the Massachusetts Blue Cross would not permit further statistical refinement. Possibly, it was the author's view that any further fragmentation of data by sex or age would lack credibility. In any event, it can be said that future experience studies of such data would be improved by segregation along the lines indicated above. For example, in the paper under discussion, individual and family contracts are segregated for experience purposes. However, if the head-of-the-family's experience covered under the family contract could be separated and joined with the individual's experience, such combined results would provide a rea-

sonably homogeneous class and a broader statistical base. The residual family experience comprised of only dependent wives and children would similarly be a purer classification and of value in assessing dependent loss expectations. In such further studies, it might be of interest to note the format used by Messrs. Gingery and Mellman in their recent article in the 1961 Proceedings of the Society of Actuaries entitled "An Investigation of Group Major Medical Expense Insurance Experience."

More specifically, it is also felt that the arrangement of the data would be of more value for interpretive purposes if

1. Maternity claims were separately shown, thus distinguishing fortuitous from non-fortuitous claims, and
2. Total medical expense charges were tabulated as well as the actual claim payments.

As to suggestion No. 1, it has usually come as a surprise to most actuaries that maternity claims are a proper subject of insurance in the first instance. Since such claims are usually foreseeable, non-catastrophic and budgetable, they can be considered to be outside the realm of insurability. However, the coverage has nevertheless become a fixed segment of the Accident and Health product and will probably remain there. Under these circumstances, the best course for the actuary is to recognize the difference between the chance and non-chance claims in his statistics. To do otherwise is to produce a blend of data which leads to a "bunching" of claims in a severity study at the maternity benefit amount and to obscure the frequency level due to chance claims alone. Again, the Massachusetts Blue Cross statistical plan may not provide for such refinement. Further, if the objective of the author's study is merely to measure past rate adequacy overall and to predict future pure premiums, the maternity segregation is not crucial on the assumption that the relativity of maternity losses to total will not change significantly. The stress in this discussion is only to suggest that interested readers from outside the Blue Cross field would benefit by such a split in the possible application of these studies to their own rate-making activities.

As to suggestion No. 2 above, it is helpful in the field of Major Medical insurance to have available total charges in addition to losses paid under a specific plan of coverage. With the availability of the former data, it becomes possible to relate any type of major medical plan with varying deductibles and coinsurance to the raw data and thus to measure the effect of varying such factors. Again, this was the approach used in the aforementioned paper by Messrs. Gingery and Mellman.

In analyzing the actual statistical tables the following comments seem appropriate:

1. Tables I and II demonstrate remarkably consistent results in portraying the loss development pattern of paid to ultimate losses as of specified points of time.
2. In the diagnosis study as shown in Table VI, there may be some justification for expanding the coded disabilities for Master Medical since the "all other" category is averaging around 45%.
3. In Table VII, an exhibit of claims by size is shown in which, as Mr. Kormes has stated, the distributions do not follow any regular

pattern. The significant bunching in the size group \$250.01 to \$300.00, for example, demonstrates this irregularity when shown with adjoining groups:

Master Medical		
1959		
Family		
Size of Claim	Number	Amount
\$200.01-250.00	28	\$ 6,289
250.01-300.00	536	159,226
300.01-400.00	29	10,131

Mr. Kormes explains this aberration (and it occurs to a lesser extent in distributions for other years and for the individual contracts) by the statement: "This is most probably due to certain types of more frequent serious illnesses for which the costs fall into the above ranges." While this explanation may be valid, it would appear to the writer that this particularly freakish phenomenon should be verified by first segregating the tabulating cards by diagnosis and then preparing a tabulation by size and by diagnosis.

Because of the irregularity of these distributions, the author would probably be the first to agree that their use in determining rate credits for higher deductibles, as was done on page 125, is subject to some margin of error. Possibly it could be minimized by combining the available years of experience into one table and smoothing the resulting data into a more acceptable device for such purposes.

As a further point on this item, which point was touched upon above, the tabulation of charges in lieu of claims paid by size would also improve accuracy in deriving rate differentials for varying deductibles. That is, alternate deductibles should be applied to total charges rather than to claims to which coinsurance percentages and the current \$25 deductible have already been applied.

In conclusion, I feel that Mr. Kormes is to be commended for adding to our statistical storehouse of Accident and Health data. The theme of this discussion is only to suggest that the value of future studies would be increased if the data were arranged and refined along the lines indicated above.

AUTHOR'S REVIEW OF DISCUSSION

MARK KORMES

Statistics are Heaven or Hell for the actuary depending on whether or not they show what he expects and are available in such detail as he desires. It is for this reason that I have selected the title of my paper and have repeatedly indicated therein the need of further studies and more detailed analyses.

Mr. Bevan's discussion quite properly brings out the necessity for additional more detailed information. Some of the subdivisions such as age and sex may have merit if they are to be used as rating factors.

In some of the Blue Cross plans where I have been instrumental to implement this coverage an age factor was introduced to reduce the rate for groups with a large proportion of younger ages and vice versa.