SOCIETY OF ACTUARIES

Article from:

The Actuary

December 1973 – Volume 7, No. 10

MANAGEMENT PRINCIPLES OF RC

by Clayton A. Cardinal

An examination of 1972 financial statements of insurers discloses that many companies reported substantially improved operating results for group medical expense insurance. These results may have been brought about more by influences external rather than internal to the management of such insurance. The more important external influences include private and public efforts to better manage and distribute preventive and curative medical resources and information and the effect of the economic climate during the period, especially the governmental wage and price controls.

Whether or not the improved operating results of group medical expense insurance can be sustained remains to be seen. The financial reprieve, however, does give insurers opportunity to re-examine the management principles of their group medical expense insurance under conditions more favorable than those existing during the several years preceding 1972.

Management Principles

A broad statement of basic insurance management principles is that (1) business which can be written in accordance with prescriptions of underwriting and rating manuals should be written; (2) business written which manifests high levels of profit should be guarded and business written which manifests no profit should be terminated; and (3) the balance of business written manifesting profit levels approximating expected should be continuously evaluated.

Realization of the management principles in large part is a consequence of the successful application of the underwriting processes of selecting and classifying risks and the actuarial pricing process of establishing adequate and equitable premiums for the risks to be underwritten.

Underwriting

Successful application of the underwriting processes to a group is dependent on (1) compliance of the group and any of its subclassifications with the definition of a group; (2) collection and informed evaluation of essential and necessary data on the group; and (3) equitable funding of the premium within the group.

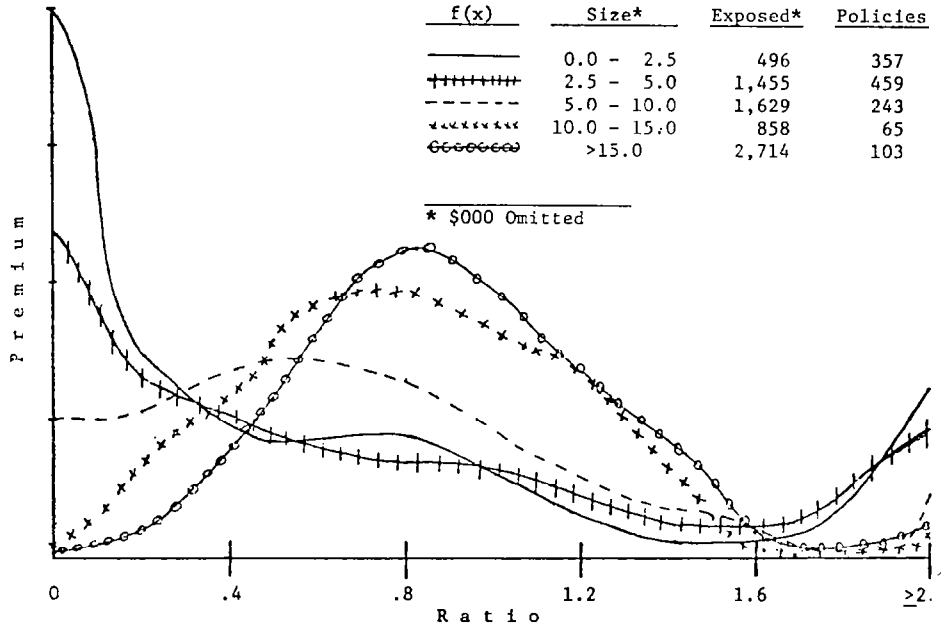
Is a group properly constituted for purposes other than obtaining insurance?

Graph A

$(\int_0^{\geq 2} f(x)dx = 1.0)$

f(x)	Size*	Earned Premium Exposed*	No. of Policies
———	0.0 - 2.5	496	357
+++++++++	2.5 - 5.0	1,455	459
- - - - - -	5.0 - 10.0	1,629	243
xxxxxxxxx	10.0 - 15.0	858	65
ooooooooo	>15.0	2,714	103

* $000 Omitted



That a group and any subclassifications thereof must meet the definition of a group before it can be selected follows from the requirement that only group determination of benefits is possible. Individual selection of benefits without a corresponding selection of the individual by the insurer must be avoided.

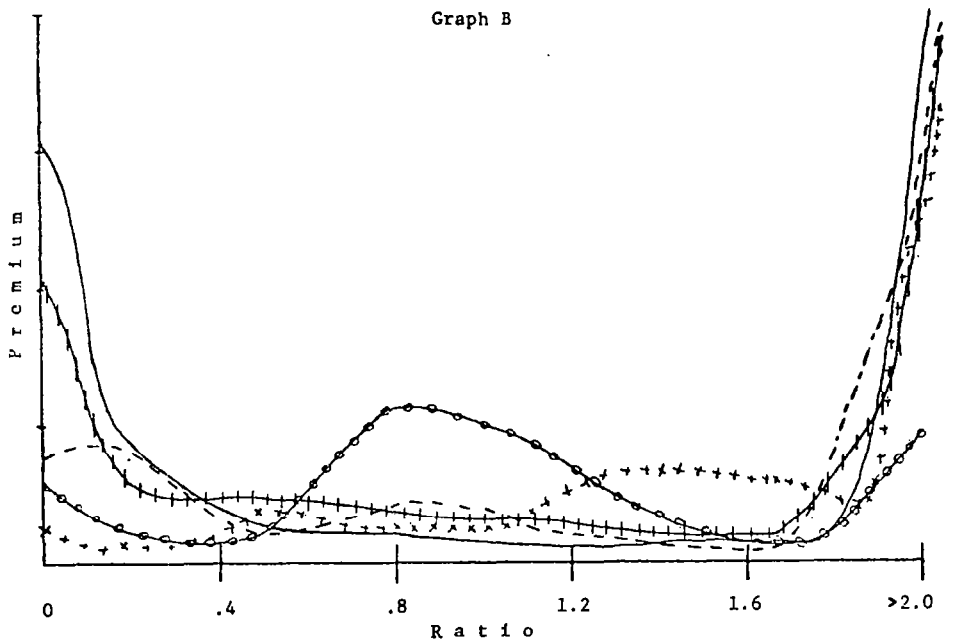
To a limited extent the financial consequences of waiving in part this requirement can be actuarially anticipated. In a number of situations partial waiver of the requirement is a necessary condition of "bidding" specifications. However, the financial consequences of a substantial waiver can only rarely be anticipated by the insurer, while at the same time maintaining a marketable premium. When substantial waiver of this requirement is indicated, an insurer either should decline to underwrite the group or should offer to underwrite the members of the group individually.

The successful classification of a group is dependent on an astute evaluation of essential and necessary information on the group and its members. Information on the group should include (1) number of prior insurance carriers, including dates thereon; (2) any prior experience (premium and benefit payments and information on members) and policy provisions related thereto (definitions, benefits, limitations, classifications); (3) member turnover; (4) geographical cost area; and (5) "environmental" aspects such as nature and prospect of industry and the group within the industry, employment methods of the group, and occupational and "social" or economic hazards of the members.

Information on each member should include (1) subclassification, (2) age, (3) sex, (4) salary, (5) dependency status, (6) insurance status, and (7) employment or "customary" status.

To a limited extent the financial consequences of not obtaining and evaluating a small part of the indicated information can be actuarially anticipated. However, since the information is essential and necessary to a proper classification of a group, an insurer should decline to underwrite in those situations where the required information cannot be obtained.

DU MEDICAL EXPENSE INSURANCE



There should be equitable funding of the premium within the group—that is, funding of the premium in a way such that there is a financial incentive for the vast majority of members to participate in the insurance program. This implies generally that the group insurance sponsor must subsidize the premium to an extent such that a member would not look outside the program to cover his insurance needs. If the premium subsidization by the sponsor is insignificant, equitable funding would require that each member's premium be assessed on a basis such that material cross-subsidization between members is avoided and cannot result in an "assessment" spiral.

Pricing

Successful application of the pricing process calls for assessing each group underwritten the *true* premium for its classification. A most pertinent part of such a premium assessment is a reflection therein of the effect of an evaluation of any prior insurance experience of the group.

Graph A displays the distribution of the ratio of incurred benefit claims to earned premiums for individual single employer-employee group policies for medical expense insurance by policy size classification as determined by the range of indicated annualized premiums. *Graph A* and *Graph B* have been based on recent experience of the author's company and are limited in that an insufficient number of policies at the larger amounts of premium was underwritten.

It is evident from *Graph A* that as the premium size classification increases, the associated curve becomes more bell-shaped or normal. For the smallest classification, the majority of the ratios is seen to fall outside any reasonable range bracketing the mean ratio. For the largest classification the majority of ratios is seen to fall within such range. These results imply that:

(1) Very small groups should have the pricing of their insurance based on expected claim-to-premium ratios determined by the application of prescriptions of the underwriting and rating manuals before consideration of any prior experience since little or no statistical credibility can be attached to such prior experience;

(2) Very large groups should have the pricing based on expected ratios determined by an evaluation of prior experience because significant credibility can be attached to such prior experience;

(3) Groups neither very small nor large should have their expected ratios determined by application of a statistical credibility formula which assigns weights to actual claim-to-premium ratios and those ratios inherent in the rating manual before the evaluation of any prior experience.

Graph B sets forth the distribution of the ratios of incurred benefit claims to earned premiums for successive years for the same policies, with the exception of policies in the first year and by the same size classifications and definitions as in *Graph A*. *Graph B* illustrates better than *Graph A* the non-credibility of actual experience for the smaller classifications. Further, the statistical parameters of *Graph B* may be more appropriate than those of *Graph A* for determining the parameters of any credibility formula and the number of years of experience to be taken into the formula.

Many insurers believe in and adhere to the management principles iterated in this article and apply them to their group medical expense insurance. Others in (re)considering their value will come to understand and accept them. The incredulous should find that the current financial reprieve for them is short-lived. □

Study Manuals

We have the following information from Northeastern University about their spring study manuals.

Parts 3 & 4: May be ordered at any time ($12.00 each)

Part 6: A new manual is being prepared and will be available later in the winter.

Other Parts: An information bulletin will be sent to all Fellows, Associates, and Students on the mailing list.

ERRATUM & ADDENDUM

Apparently the problem of inflation has been solved at least temporarily! Mr. Hébert's letter (pp. 4, 5 November issue) cited an employee earning $10,000 a year at 25 ending up "with a $10,000 salary at age 65"—the last figure should obviously be $100,000. Our apologies to Mr. Hébert.

The cost of the Medicare report reviewed in the *To Be Continued* column in the November issue is $1.10.