

RECENT DEVELOPMENTS IN COMMERCIAL ACCIDENT
AND HEALTH INSURANCE

BY

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A. *Accident Insurance*

THE BACKGROUND

In the early years of the 20th century, a typical Accident policy was likely to provide:

1. Accidental death coverage of \$1,000.
2. Dismemberment coverage varying from \$1,000 for loss of two limbs to \$250 for loss of thumb and finger.
3. \$5.00 per week for total disability not to exceed one or two years duration.
4. \$2.50 per week for partial disability not to exceed 10 weeks.
5. Rather limited benefits for hospital confinement and specified surgical operations.
6. The premium for this coverage was usually \$5.00 in the non-hazardous occupations.

By the time of the historic year 1929, a typical Accident policy provided:

1. Accidental death coverage of \$1,500.
2. Dismemberment coverage varying from \$1,500 to \$375.
3. \$5.00 per week for total disability, even for life, with disability often defined as inability to perform the duties of *his* occupation.
4. \$2.50 per week for partial disability not to exceed 26 weeks.
5. Provision for doubling the above benefits if the accident occurred on a public conveyance or for certain other specified causes.
6. Certain benefits for hospital confinement and surgical operations.
7. The premium charged for this coverage in the non-hazardous occupations was still \$5.00.

In addition, some companies were offering additional benefits such as triple or quadruple indemnity for special types of accidents, partial disability with a 52 week limit, and liberal special benefits for automobile accidents, sometimes applying to the occu-

pants of the automobile, sometimes to pedestrians, and sometimes to both. Sometimes an adequate extra premium was charged for these additional benefits, but more often not.

THE STATUS TODAY

The corresponding form of Accident policy issued in 1935 provides:

1. Accidental death coverage of \$1,000.
2. Dismemberment coverage varying from \$1,000 to \$250.
3. \$5.00 per week for total disability with the further provision that during the first 52 weeks, indemnity shall be paid for inability of the insured to perform the duties of *his* occupation, but for disability beyond 52 weeks indemnity shall be paid only for inability to perform the duties of *any* occupation.
4. \$2.00 per week for partial disability not to exceed 26 weeks.
5. Provision for doubling the above benefits if the accident occurred on a public conveyance or from certain other specified causes.
6. Certain benefits for hospital confinement and surgical operations.
7. The premium charged in the non-hazardous occupations is \$5.00. However, certain occupations which were formerly considered relatively non-hazardous, such as real estate agents and traveling salesmen have been placed in a class where the premium is \$6.00. Moreover, an additional charge is made today for death coverage with the higher attained ages, usually above age 60.

The reasons for this history of liberalization of benefits followed by restriction of benefits and premium increases are various. Among them may be mentioned:

1. *The type of carrier handling Commercial Accident and Health business.*

This kind of business has been sold in the U. S.—

- a. As a sideline to life insurance by life companies not conducting a general Casualty business.
- b. As a sideline to other kinds of insurance by Casualty companies conducting Workmen's Compensation Insurance, Burglary Insurance, Liability Insurance, etc., but not life insurance.

- c. By multiple line companies doing all forms of insurance business.

In very few instances has Accident and Health Insurance been one of the primary lines handled by a company, but all too often it has been a sideline used as a feeder for other forms of insurance with a consequent temptation to ignore rate inadequacies, and to be over-influenced by competitive considerations. Unlike Casualty insurance, where pooled statistics are handled by Bureaus with mandatory power, and unlike Life insurance where most fairly good-sized companies have reasonably good statistics available, scientific actuarial treatment in the Accident and Health field was for many years conspicuous by its absence in all but a few large companies.

The conditions just outlined above brought about a constant tendency for many years toward inadequate rates and over-liberal coverage, with no effective machinery for securing a co-ordinated program.

2. *The increasing importance of the automobile.*

The "Prosperity" policy described as prevalent in 1929 had become fairly common as early as 1915, and undoubtedly for quite a few years following 1915, produced modest profits to the companies, but beginning about 1922, the automobile accident loss ratio has risen steadily, until today the automobile accounts for over 30% of all accidents instead of a negligible proportion as was the case 15 years ago.

Despite the great improvement in the industrial "general" accident frequency, the accident loss ratio in the "white collar" class for accidents other than automobile accidents has remained relatively unchanged, so that there has been no offsetting factor.

3. *In certain casualty companies, the tendency to rely on investment profits to offset underwriting losses.*

The attitude of companies which found investment profits rolling in during the boom years was obviously not one to encourage careful underwriting or an impartial attitude toward scientific rate determination.

Not long after 1929, however, conditions were radically different. The entire attention of the company executives was focused on eliminating all possibility of underwriting losses. Investment profits had disappeared or had been transformed into losses, sometimes of disheartening proportions. The automobile hazard continued to account for a large share of claims, and the malinger-

ing, conscious or unconscious, which always appears in times of unemployment, immediately began to materialize.

The Accident and Health companies turned to the Bureau of Personal Accident and Health Underwriters in order to formulate some program which would put the business on a sounder basis. This Bureau, organized in December, 1914, had done valuable work in keeping in touch with proposed legislation, in sponsoring a standardized Occupation Manual, and in acting as a general clearing house for discussion and planning. A few of the restrictions and rate increases just mentioned had been put into effect as early as 1929, but in 1931 it was decided that the Bureau should go further. The insuring clause of the Accident policy was standardized, and the Bureau drafted some typical policies and had them submitted for approval by the various Insurance Departments in the name of one company. It was suggested that the language of these advisory policies be used by all companies. In addition, the following important provisions were made mandatory on all Bureau Members:

1. The policy must cover only accidental injuries arising from accidental *means*.
2. Benefits for total disability could be paid for fifty-two weeks for inability of the insured to perform the duties of *his* occupation, but for disability beyond fifty-two weeks, benefits could be paid only for inability to perform the duties of *any* occupation.
3. Benefits for partial disability must be limited to 26 weeks and to 2/5 of the weekly indemnity payable for total disability.

Rates for the present policy forms were fixed by the Statistical Committee of the Bureau. Any special policy proposed by a company had to be submitted to this committee and to the Underwriting Committee of the Bureau for approval of the language and adequacy of the rates. Any company is at liberty to use higher rates or less liberal benefits than those sponsored by the Bureau.

INTRODUCTION OF MEDICAL REIMBURSEMENT CLAUSE

In 1930 and 1931 several companies issued policies in which the specific hospital, medical, surgical and nursing benefits previously included were replaced by a provision that the company

would reimburse the insured for the amount actually expended by him for such services, not to exceed some specified limit. The limit was usually fixed at twenty times the weekly indemnity or 10% of the principal sum, and the minimum limit in all cases has been \$500. However, a policy of this type has also been issued in a form containing no principal sum (i.e., death benefit) or weekly indemnity, but merely dismemberment benefits and certain benefits for specified injuries. There had been a feeling for several years that the standard form of Accident policy described earlier was not meeting to the fullest extent the needs of the public. Many of the purchasers of Accident policies are in salaried positions and their salaries are continued by their employers during disability. The agent was forced to make the statement that the weekly indemnity benefits could be used by the insured to defray various types of medical expense incurred by him which would probably not be covered in most cases by the rather limited surgical, hospital or medical benefits of the older type of policy. By introducing a policy providing for direct reimbursement for these expenses, the companies have brought it about on certain policy forms that the surgical, hospital, medical and nursing benefits, instead of being a rather trivial part of the policy, have become a major benefit. So far as this clause is concerned, the problems of these newer policies become those of *indemnity* rather than those of *insurance*.

Most of the claim cost for such a benefit comes from relatively small claims, so that units beyond the initial unit can be granted at a lower rate. For instance, when originally brought out, a policy with \$5,000 principal sum, \$25.00 weekly indemnity and \$500 reimbursement limit was issued in the non-hazardous occupations for a premium of \$30.00, while a policy with \$10,000 principal sum, \$50.00 weekly indemnity and \$1,000 reimbursement limit was issued for a premium of \$55.00. In 1933 these rates were increased somewhat. As no actual experience was available in 1930 and 1931, the rates for the first few years to be charged for this reimbursement benefit had to be based largely on judgment. Recently some experience has become available and in a few years more it should be possible to check up the rates with a considerable degree of accuracy.

RATE SET-UP TODAY

Typical gross rates for men in Class A (the most favorable occupations) are now made up as follows:

	With Older Forms of Surgical, Hospital, etc.	With Newer Reimbursement Benefit* — 1st \$5,000	Additional Units
Death \$1,000	\$1.75	\$1.75	\$1.75
Dismemberment .....	.10	.10	.10
Total Disability \$5....	1.67	1.67	1.67
Partial Disability \$2..	.66	.66	.66
Double Indemnity ....	.50	.50	.50
Surgical, etc. ....	.32	..	..
Reimbursement .....	..	2.32	1.02
TOTAL	\$5.00	\$7.00	\$5.70

*Minimum policy \$5,000.

Note: Although the reimbursement policies are issued only with a minimum reimbursement limit, they have been shown in the above table on a basis of \$1,000 principal sum with \$5.00 weekly indemnity for the sake of comparison.

In promulgating these rates, the Statistical Committee of the Bureau collected from the member companies such experience as was available. The composite expenses of the companies were studied with a view toward fixing the amount of loading to be used, and arrangements were made to have the Bureau assemble annually the combined experience of the member companies by means of Hollerith cards beginning with the policy year 1931.

Certain principles in connection with the calculation of rates have been standardized. Among these are:

1. *Treatment of Unlevel Insurance.*

An Accident policy providing \$1,000 of principal sum and \$5.00 of weekly indemnity is customarily known as level insurance, and any policy departing from this ratio is known as unlevel. It has generally been felt that there is a selection against the company in the case of unlevel insurance, although this has not been conclusively demonstrated by statistics. The rule has been adopted that a policy providing for principal sum only, or a policy providing for weekly indemnity only, shall carry a rate increased 10% over rates such as are shown in the above table, and corresponding adjustments are made for excess death or weekly indemnity in the case of unlevel policies.

2. *Accident Insurance Issued to Women.*

Prior to 1932 some companies had issued Accident insurance to women at a classification one degree higher than to men; others had made no distinction. Today standard basic rates for women are adopted which are lower than those for men in the case of death benefits and higher for weekly indemnity benefits. For a level policy the results are usually about equivalent to the old rule of using one classification higher than for men.

3. *Classification for Occupation.*

At present occupations are classified under the headings "A", "B", etc., "A" representing the most favorable occupations. An elaboration is now in effect distinguishing between the principal sum and the weekly indemnity as far as the effect of occupation is concerned. This is necessary because the effect of occupation is two-fold; in the case of the death benefit only the amount of actual hazard involved needs to be considered, whereas in the case of the weekly indemnity the consideration of the possibility of a trivial accident producing a long continued disability has to be taken into account. For the four classifications in which the bulk of Commercial Accident Insurance is written, the relationship between the rates charged is now as follows:

	Death	Weekly Indemnity
A	100%	100%
B	112½%	125%
C	125%	150%
D	140%	190%

The correct classification of occupations demands a careful study of all statistics available plus careful and discriminating judgment. In general, Class A includes those engaged in office or executive duties, Class B those whose duties require them to be outside or on the road for a considerable portion of their time, but do not involve any hazard beyond that of ordinary travel, while Class C and Class D introduce progressively some element of provision for the longer weekly indemnity claims inherent in occupations where personal performance of work replaces or outweighs supervisory duties. Class E and higher classes embrace those occupations where the danger of accident, either non-fatal or fatal, becomes a factor of real importance.

B. Health Insurance

The evils of unwise and unrestricted competition appeared considerably earlier in the case of Health Insurance than in the case of Accident Insurance, and were perceived considerably earlier. These evils had been corrected to a notable extent before the inauguration of the more or less standard Accident Program already described, but the history of Health Insurance may be briefly outlined for the sake of completeness.

In the early years of the Twentieth Century a typical Health Policy usually provided:

1. \$5.00 per week for total disability while confined to the house.
2. \$2.50 per week for total disability not confined to the house (disability in the aggregate not to exceed 52 weeks in duration).
3. Limited surgical and hospital benefits.

By 1915 many policies were being issued providing:

1. \$5.00 per week for total disability, even for life, whether confined to the house or not.
2. \$2.50 per week for partial disability.
3. Limited surgical and hospital benefits.

This later type of policy soon began to cause alarming losses, and the attempt to correct the situation by increasing premiums had the same effect as has been perceived in disability with Life Insurance and in other fields, namely, a vicious circle of adverse selection with even greater losses.

Because of the mounting losses, the Bureau collected statistics for six years beginning with 1921 by the means of Hollerith cards sent into the Bureau. The experience clearly revealed facts which, in most companies, led to:

1. Elimination of partial disability and life indemnity.
2. The introduction of policies with waiting periods.
3. Reversion to reduced payments for disability not confined to the house.
4. The elimination of policies for excessive amounts.

Bureau action towards standardization in 1932 as far as Health Insurance was concerned merely attempted to crystallize, either formally or informally, some improvements in practice which had already been instituted in most companies.

As far as premium volume is concerned, Health Insurance is not an important factor in most companies today operating in the Commercial Accident and Health field.

C. Treatment of Renewals

Under Commercial Accident and Health policies, the premiums on renewals can legally be increased by the company at any time. In the past, companies have been reluctant to take this step. With a large volume of outstanding business issued at rates perceptibly less than the rates in effect for new business today, many companies felt it imperative to make some rate adjustments in this old business. However, with the immense variation in types of outstanding policies and premium rates among the companies, it was not felt that this should be handled through the Bureau, although the Bureau gave the movement active encouragement. Today, a very large volume of business originally issued at inadequate rates has been placed on an adequate basis either by reduction in benefits or increase in premium.

D. Compilation of Accident Experience

In addition to the standardization of policy benefits and premium rates on the basis of such information as was available, the Bureau took steps to have the combined experience of the member companies collected and kept up to date as far as possible, as had already been done for a six year period in the case of Health Insurance. The exposure and claims under each policy have been sent to the Bureau monthly, beginning with the exposure of policy year 1931. The experience on two full policy years, 1931 and 1932, has already been compiled. The experience for these two years was decidedly unfavorable, as would be expected from the economic situation then existing. The combined loss ratio on all policy forms (male only) for policy year 1931 was 60% and for policy year 1932, 56%, whereas the rates at present in use contemplate a loss ratio, excluding claim expense, of 45%.

The Annual Statements of the companies for the calendar year 1934 have indicated that the decline in losses has persisted, so that it is not going too far to say that the adequacy of the rates now in use may be regarded as tentatively confirmed. The high loss ratios for the two years in question are due partly to numer-

ous death claims and prolonged indemnity claims, but also, to a large extent, to an inadequacy in the rate structure then in effect. Since 1931, rates have been increased in the case of new business, and, in many companies, in case of renewals. Improving economic conditions coupled with increased rates should keep the loss ratio at a satisfactory level.

The subjects investigated by the Statistical Committee of the Bureau are:

1. Experience by policy form.
2. Experience by classification.
3. a. Experience by size of policy (principal sum).
b. Experience by size of policy (weekly indemnity).
4. Experience by age.
5. Experience by territory.
6. Distribution of claims for total disability and claims for partial disability by length of period of disability.

It is also the intention of the Bureau to keep a running account of experience by occupation, leaving the summarizing of such experience to be completed when sufficient volume has been accumulated or when some particular information is needed.

It is not the purpose of this paper to give in detail the results of this recent experience, especially since the detailed experience available is restricted to two of the worst years in the history of the business. A few points, however, may be mentioned.

The death rate by amount, that is, weighted by amount of exposure, in class A for males was 1.08 per thousand in 1931, and .92 per thousand in 1932, as compared to .79 per thousand provided for in the rates charged today. The actual net cost of \$1.00 per week total disability in class A male for 1931 was \$.189 and for 1932 \$.170 as compared with \$.15 provided for in the rates. The corresponding cost of partial disability was .080 in 1931 and .079 in 1932, as compared with \$.06 provided for in the rates.

The experience has conclusively confirmed our ideas as to the relatively unfavorable experience on policies of large amounts both as regards death and weekly indemnity, and also has clearly confirmed the need for an additional premium charge for the death benefit with higher ages. It indicates a slightly higher rate

of disability with the higher attained ages as far as weekly indemnity is concerned.

E. Statistical Methods

The general principles of conducting an investigation into Commercial Accident and Health experience may be of interest. The exposure is reported by means of a punched card for each premium payment, and the claims by corresponding cards for each claim. There are two methods of summarizing the experience:

1. By obtaining loss ratios (claims divided by premiums).
2. The pure premium basis (by obtaining the probability of accidental death, the number of weeks of disability per life year, etc.).

Method (1) is much less laborious, but the uses to which it may be put are somewhat limited and it becomes of somewhat doubtful value for combined experiences of various companies charging premiums which are not uniform. For calculation of rates, method (2) is the ideal method. The various probabilities under method (2) may be calculated on either a "number" or an "amount" basis, using the phraseology of Life Insurance experience. For the former, the number of life years of exposure are tabulated and the number of weeks of disability. For the latter, we have to obtain the amount of dollar-years exposed for principal sum or weekly indemnity, and from the claims obtain the amount of claim payments. In obtaining the exposure, the exposure cards may be either sorted by the term of the policy and the amount of principal sum or weekly indemnity multiplied by the term in months, or the cards may be sorted by the amount of principal sum or weekly indemnity and the amount in each case multiplied by the sum of the number of months. The work may be materially shortened by punching master cards for the totals in each group.

Most of the work of the Bureau Committee has been devoted to obtaining pure premiums for the various benefits. In the case of occupational experience, however, loss ratios were deemed to be sufficiently accurate on the assumption that there would be no reason to suppose that in any one occupation there should be an undue proportion of business from a company with rates higher or lower than the average.

F. The Outlook

One question may very naturally be asked, "Does the movement toward more accurate determination of statistics and more scientific rates mean a tendency for Accident and Health premiums to move up and down from year to year with changes in current experience?" Probably no one would care to give a categorical answer to this question. The traditions of the business, sold as it has been as personal insurance in a manner similar to Life insurance, are against frequent changes in rates. Undoubtedly in the past, however, we have erred too much in the other direction. If, by keeping track of current experience accurately, we are able to see the need for any major rate changes, and act promptly, it will be for the best interests of the business.

Certainly, the tendency in the last few years towards standardization of policy language, elimination of "frills" and complicated policy benefits, and toward scientifically determined premiums has put Accident and Health insurance in a much more satisfactory position than has been the case for many years.