TRANSACTIONS OF SOCIETY OF ACTUARIES
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Miscellaneous

A. Guaranteed Insurability Option
   (i) How successful have companies been in promoting the sale of the Guaranteed Insurability Option? What problems have been encountered?
   (ii) What problems may be expected as a result of misstatements of age?
   (iii) What are the effects of the New York ruling that the suicide clause may not apply to policies obtained under this option?

B. Insurance at age 0
   (i) In view of the lower mortality rate at age zero in the 1958 CSO Table, is it likely that more companies will provide full insurance coverage under policies issued at that age?
   (ii) What has been the experience of companies now granting full coverage, and what underwriting safeguards are indicated by their experience?
   (iii) What will be the effect in Canada of the removal of the graded amounts requirement from the Uniform Insurance Acts?

Toronto Regional Meeting

MR. CHARLES W. KRAUSHAAR, JR.: In March 1959, New York Life introduced a guaranteed insurability option providing as many as seven option dates beginning at age 22 and occurring every third policy anniversary thereafter. In November 1960, we expanded the option for male lives to provide automatically three months term insurance from the date of the insured's marriage and from the date of birth or adoption

POLICIES WITH G10 RIDER AS A PERCENTAGE OF THOSE ELIGIBLE FOR RIDER

Issue Age	January—April 1960 Paid Issues				January—March 1961 Paid Issues			
	Male		Female		Male		Female	
	By No.	By Amt.	By No.	By Amt.	By No.	By Amt.	By No.	By Amt.
0– 4	36.3%	34.3%	9.6%	10.5%	43.2%	40.6%	12.0%	10.9%
5– 9	48.0	42.5	18.4	17.3	48.2	44.1	20.6	23.1
10–14	42.9	43.0	18.0	17.9	48.9	45.8	10.5	10.2
15–19	16.2	16.4	3.2	2.4	21.0	21.0	6.5	8.2
20–24	10.7	11.8	0.7	0.7	16.0	17.3	2.5	2.2
25–29	6.6	8.1	1.6	1.9	9.0	10.0	1.4	2.5
30–34	3.7	4.6	0.9	1.1	4.0	4.5	0.5	0.6
35–37	1.1	1.5	0.6	0.4	1.6	1.4	......	......
All Ages	9.3%	9.9%	3.3%	3.6%	12.6%	12.4%	3.4%	3.8%

of each child of the insured. In addition, alternative option dates were provided upon the expiration of the term insurance, with the next regular option date, if any, being eliminated where the option is exercised.

The percentages of New York Life's eligible issues purchasing the option are shown in the accompanying table. The period January to March 1961 occurred after our expansion of the rider. It would appear that this expansion had the effect of making the rider more salable. As might be expected the percentages are highest for the juvenile ages.

MR. W. JAMES D. LEWIS: Confederation Life Association commenced offering the guaranteed insurability option rider in June 1959 in Canada, and in August 1959 in the United States and United Kingdom.

The benefits provided by the rider are comparable in all three areas. The maximum option amount is $15,000 and the top option age is 40 with 6 possible option dates in all. Any "opted" policy is subject to a premium reduction on the first premium of $2.00 per $1,000.

For the year 1960, this rider was added to 4.7% of policies written in the three areas – 3.6% in the U.S., 4.2% in Canada and 7.4% in the United Kingdom. For the first four months of 1961, the over-all percentage has increased to 5.6%.

No particular problem has been encountered in promoting the sale of this rider. As with any new plan or benefit, particularly if it involves a new concept, some time is required before the field training program makes the agency organization fully facile and confident in presenting and selling the product.

MR. N. DOUGLAS CAMPBELL: My sales figures apply to four Toronto companies, including the Crown Life, which operate in both Canada and the United States. The wide variation of the figures between companies is interesting. Percentage of sales related to the number of eligible policies ranges from 2% to 25%. The four company total shows 9.2% for Canada, 12.2% for the U.S., and 10.1% for Canada and the U.S. combined. The lowest percentage, 2%, is that of Crown Life on its Canadian sales. For our U.S. sales the figure is 5.7%. In another company with about 5% sales the percentages for Canada and the U.S. were about the same. The third company's sales were 11% for Canada and 12% for U.S. The company with the highest percentages showed 17% for Canada and 25% for U.S. This company has a somewhat different type of benefit in that immediate term coverage is provided which drops off at the successive option dates.

The surprising thing is that all companies appear to be satisfied with their results. The companies not writing a great deal of the benefit are not unhappy. We, at Crown Life, have certain reservations as to the possible future experience on this benefit as compared with our premiums. In looking over the results of my own company we were interested to find that the benefit is not often added to our "jumping juvenile" plan.

Most of the other problems we incurred arose in drafting the clause. These have been solved to our satisfaction for 41 states which have approved the wording we like. Various points which we believe are pertinent to a good experience under this benefit are specifically covered in the wording of our clause. With reference to contestability, for example, we say: "Any new policy issued on an option date which occurs within the first two policy years of this policy, shall be effective only if the statements and answers contained in all documents pertaining to the application for this policy, or the application for reinstatement thereof, are full, complete, and true, on the date this policy, or the reinstatement thereof, becomes effective. The new policy will be issued on the policy form in use on its first premium due date and will include any clauses regularly included in such a form and any restrictions included in this policy." With reference to proof of age, we say: "Satisfactory evidence of the age of the insured shall be submitted to the Company when the first request is made for a new policy." One state has required us to delete the reference to reinstatement and we have done so. Another state has objected to all of the contestability references and has some other objections also. We have not given in here yet, but, of course, cannot offer the benefit in that state. Our company does not operate in New York State.

MR. JOHN A. MEREU: The London Life introduced the guaranteed insurability option in 1959. An analysis by number of policies issued and eligible to have the rider indicates that the percentage selecting the rider was 19.5% for ages 0 to 15, 5.4% for ages 16 to 24, and 1.5% for ages over 24. There is also evidence that the rider is increasing in popularity.

During 1960, 5 option policies were issued out of 122 for which there was an option date. During the first four months of 1961, 19 were issued out of 109 option dates.

We hope to sidestep misstatement of age problems by insisting on proof of age before issuing an optional policy. We are revising the rider page in the parent policy to indicate that the self-destruction clause will apply to any option policy.

MR. JERRY L. BROCKETT: From August 1959, when we introduced this rider at Northwestern National Life, sales have gradually increased so that during the first three months of 1961 the rider was attached to 6% by number of total ordinary business and 20% by number of eligible ordinary business.

MR. EDWARD T. HILL: North American Life introduced a guaranteed insurability rider in January 1960.

Under our plan, "opting" is permitted on only one of the usual six option dates and when a new policy is issued under the option the rider on the original policy expires. However, the "opted" policy is entitled to have a new guaranteed insurability rider added to it at the attained age rate then in effect. This rider also provides for only one option to be selected from the remaining option dates. This type of option has a lower premium rate at young ages. The use of the rate basis in effect at issue of the "opted" policy provides some hedge against adverse experience which is not available in the normal form of the benefit.

Percentages of our eligible issues purchasing the rider are shown below:

Year	Ages	Canada	U.S.A.
1960	0–19	7.4%	23.4%
	20–29	4.5	4.2
	30–37	1.0	1.1
	All ages	4.6%	5.8%
First Four Months 1961	All ages	5.5%	6.5%

That our U.S. business shows better utilization than our Canadian business may be due to our business in the U.S. being predominantly in the large metropolitan areas. In Canada our business includes smaller urban as well as rural areas. Alternatively, it may be due to the larger number of companies writing the benefit in the U.S. and the consequent greater publicity.

MR. ROLAND F. DORMAN: Connecticut General commenced issuing a guaranteed insurability rider in 1959. Four option dates are provided, at ages 25, 30, 35, and 40, with a maximum option amount of $25,000. The rider is issued only to standard risks. A policy with the rider is underwritten on the same evidence as if the rider were not attached. No evidence is required when an option is exercised unless waiver of premium or additional indemnity is requested.

About one-third of eligible issues below age 25 have been issued with the rider and approximately two-thirds of the riders are issued at ages under 25. If all possible future options were exercised on business issued in 1959 and 1960, we could realize $80 million of future new business.

There has been some interest in having option dates available beyond age 40. We are reluctant to extend option dates because the opportunity for antiselection is substantially greater and a high price would have to be charged for the option to cover the extension.

MR. ROBERT R. GALLAGHER: I would like to say a few words from the reinsurer's point of view. Virtually all of the reinsurance is on the single premium basis. The single premiums, on the average, seem to assume approximately 50% "opting" rates. Reports seem to indicate that substantially lower "opting" rates have been experienced. Therefore my company, Canadian Reassurance, is somewhat worried about the low level of the reinsurance single premiums, since we receive such single premiums only for those who "opt."

MR. BRIAN L. BURNELL: I have a brief summary of the practices in the United Kingdom with respect to this option which has been issued there since 1958. There is much less uniformity in Britain than in North America as to the type of benefits issued. Some companies allow only two option dates and some as many as five. A striking difference from North American practice is that most companies will sell the benefit up to age 50 and will allow option dates up to age 55. Normally the options are limited to one-half of the face amount. It is fairly common practice to allow family income type coverage at the option dates as an alternative to whole life or endowment assurance, the usual benefit allowed being 100 per annum family income benefit in place of 1,000 of permanent insurance. A number of companies allow options every three years; however, there are some interesting variations. In one case two options are allowed, one any time within the first five years and another any time within the second five years. Another popular variation allows two or three options due at some time in the future to be accelerated and all taken together at the time of marriage.

Sales in the U.K. are concentrated mainly in the twenty to thirty age group. The benefit is not sold to juveniles there.

With respect to misstatement of age the greatest problems would occur with options taken at policy anniversary dates rather than for those at marriage or birth. In the event of misstatement of age, there is a different incidence of option dates by age and the possibility of extra option dates arising. In theory, it is possible to determine an equation of value for calculation of the correct premium rate for future years for those misstating their age at issue. However, such complications would probably make little difference in the end result. Insisting on evidence of age, either at the date of issue or at the latest at the time of exercising the first option, would prevent the more complicated problems.

MR. BROCKETT: We have made a study of the experience of the Northwestern National between 1955 and 1959 anniversaries on policies issued at age 0 granting full coverage except during the first month of age, during which period insurance was provided by a special short-term rider limited to 25% of the face amount of the ensuing policy. On standard issues involving 22 deaths, the first-year death rate by amounts of insurance was 2.25 per 1,000 and the corresponding death rate by policies was somewhat higher. No unusual underwriting safeguards were employed.

A short study indicated that the additional mortality cost of providing full benefit at age 1 day in place of the present practice would be approximately $.70 per $1,000 in the first year, or that we might experience a first year death rate of about 3 per 1,000 under full coverage for males and females combined. This compares with 7.08 for males and 6.20 for females as values of $1{,}000q_x$ on the 1958 CSO Table.

Against possible additional mortality cost arising from issuing more business at age 0, there is an offsetting factor in reduced administration costs and the hope of some further general mortality improvement at this age. We are looking favorably upon the adoption of full coverage at age 0, when we adopt the 1958 CSO Table, and we anticipate warm agency approval of the proposed change.

MR. NORMAN BRODIE: The Equitable has recently raised its retention limits for age 0 business from $25,000 to $100,000 because of favorable experience following a shift to the full coverage basis in 1951. First year crude death rates per 1,000 on age 0 issues were 2.26 between policy anniversaries in 1945 and 1950, 2.08 for 1950–55, and 2.16 for 1954–59, based on 80, 115 and 143 claims, respectively.

We do not insure a child during the first two weeks of life. Otherwise, no extraordinary underwriting safeguards are used.

MR. WALLACE R. JOYCE: The distribution by age of infant deaths in Canada for the year 1958 is shown in the following table published by the Dominion Bureau of Statistics:

Age at Death	Cumulative Total
1 day or less	31.3%
1 week " "	54.0
2 weeks " "	58.6
3 weeks " "	61.5
1 month " "	63.9
2 months " "	72.0
3 months " "	78.7
12 months " "	100.0%

Although the infant death rate for this population group of nonselect lives was 30 deaths per 1,000 live births, the table indicates that if we exclude deaths during the first 7 days of life, the mortality rate for the balance of the year would be only 13.8 deaths per 1,000 live births (or 14.0 deaths per 1,000 living at the age of 7 days).

The Dominion Bureau Report makes it very clear that for a short period immediately following birth there exists a mortality hazard that is not only greater, but different in kind, than the continuing mortality. I suggest that this special hazard, which results from congenital malformations and immaturity at birth, should be regarded as not properly insurable as a normal life insurance risk. I believe that the most logical treatment of young age mortality is to exclude coverage for the first 7 days of life and to grant full coverage thereafter, when the remaining risk in the first year of age is not seriously out of line with any ensuing mortality risk.

MR. PAUL E. MARTIN: The experience of the Ohio National on its age 0 issues has been satisfactory as shown in the schedule below:

FIRST YEAR DEATH RATES ON AGE 0 ISSUES

Period of Issue	Death Benefits	Number Exposed	Number of Claims	Mortality per 1,000	
				By Number	By Amount
1945–47....	$ 100*	2,530	12	4.7	4.9
1948–50....	250*	3,213	7	2.2	2.2
1951–59....	1,000*	8,571	25	2.9	2.5

* Per 1,000 of ultimate amount.

These results stem from two underwriting safeguards: (1) applications on premature babies and infants under normal weight are postponed until there is evidence of normal development, and (2) if the application is taken during the first 2 weeks of life, the agent is not permitted to accept prepayment with the application or issue a binding receipt. On delivery of a policy applied for during the first 2 weeks after birth, the agent must obtain a certificate from the purchaser that the child is normal and in good health; and the agent must certify that he has personally seen the child on delivery of the policy and that the child appears well nourished and in good health. As a result, coverage seldom goes into effect until the child is at least 2 weeks old.

MR. RAYMOND L. WHALEY: There have, in the past, been three main reasons for limiting coverage on young children, namely: (1) lack of insurable interest from a strictly monetary point of view (probably the reason for legal limitations in Canada and in some states), (2) anomalies in premiums and reserves resulting from mortality increasing sharply as age decreased below 10 in extensions of earlier mortality tables, and (3) the underwriting problem of satisfactorily selecting risks in infancy. Today, there is a broader view of insurable interest, the mortality table problem is lessened substantially, but the underwriting problem still remains.

In my opinion we have not reached the stage where we can safely underwrite full benefits from birth. Two alternatives are: (1) to insure infants from birth, but provide only reduced benefits for the first few months, or (2) to provide full benefits, but not write insurance during the first few critical days or weeks of life. The practical administrative advantages of the latter approach have to be weighed against the desirability of making some small benefits available immediately through the former. The following population statistics should guide our treatment:

DEATH RATES PER 1,000 LIVE BIRTHS

	U.S.A., Whites, 1956	Canada, 1956–58
First day	9.3	9.7
First week	15.7	16.6
First 4 weeks	17.5	19.9
First 6 months	21.7	28.2
First year	23.2	31.3

MR. GEORGE W. WILSON: The following table compares the experience of the Sun Life of Canada for business issued at age zero in Canada and the United States. The study is of standard issues for 1950 to 1959 inclusive, carried through to the 1960 anniversaries. The Canadian exposure covered 95,000 policy life years and $121,000,000 by amounts, with deaths on 172 policies involving $217,000. In the United States, the exposure covered 99,500 policy life years and $124,500,000 by amounts, with total death claims on 84 policies involving $108,000.

The death benefit on the United States business was the full sum assured (but no business is issued in the first 7 days of life). For the Canadian policies the death benefit was either return of premium to age 5 or a graded death benefit to age 5 (but the mortality ratios shown are based on full sums assured).

It will be noted that the results for the United States were very favorable but that the over-all Canadian ratios were practically double those of the U.S. experience. Selection practices were the same for both coun-

SUN LIFE OF CANADA—POLICIES ISSUED AT AGE 0
RATIOS OF ACTUAL DEATHS TO EXPECTED (BY TABLE X_{18})

	IN CANADA		IN U.S.A.	
	By Number	By Amount	By Number	By Amount
By Policy Year				
1–2	77%	73%	34%	34%
3–5	156	138	92	96
6 and over	199	185	107	90
All Years	94	86	47	46
By Attained Age				
0	66%	64%	26%	26%
1–2	151	136	89	102
3–5	168	147	100	88
6 and over	231	219	89	75
All Ages	94	86	47	46

tries, although the smaller early death benefits in Canada may have influenced underwriting to some extent. However, this differential reflects population statistics for the years 1954 to 1958 inclusive, which show an average first year death rate per 1,000 live births, excluding the first week, of 7.8 for the U.S.A. and 14.9 for Canada.

Underwriting safeguards include: (1) an attending physician's statement for under three months of age, (2) an inspection report in all cases, (3) a reasonable amount of insurance on the father's life and information on amounts carried on other children in the family, (4) premature babies are not accepted nor are those underweight at birth until they have attained normal weight for their height and age.

Los Angeles Regional Meeting

MR. RUSSELL M. COLLINS: In Minnesota Mutual more than half of the 100 monthly issues of the guaranteed insurability riders are for ages under 25. Even though no sales promotion material has been published, this rider is attached to 20% of the eligible issues under age 25 and 12% at ages over 25.

A $5,000 option can be attached to a "jumping juvenile" policy of $1,000 initial amount. Form letters are sent to the insured and agent at option dates. About 13% of the options have been exercised, but many have furnished evidence of insurability for supplementary riders.

MR. CHRISTOPHER H. WAIN: At the Prudential about 10% of the eligible issues include the guaranteed insurability rider; the rate of election of options has been extremely low. We have agreed to operate in accordance with the New York Insurance Department's ruling with respect to the suicide provision until the question is settled. However, we received a letter from the New Jersey Department in connection with a family policy which states: "The filing is conditioned on the converted policy issued pursuant to this family policy including the regular suicide limitation contained in other new policies being issued on conversion date, and that such limitation will run from the date of the converted policy. (This is consistent with our practice on guaranteed insurability agreements.)"

MR. EVERETT G. BROWN: For issue age 0, the Southwestern Life changed from a $400 benefit for the first policy year to $400 to attained age of six months and, in 1960, to full benefit from the date of issue, which is after age one week. Experience continues to be good.

MR. COLLINS: Since 75% of the deaths at age 0 occur in the first month of life, the Minnesota Mutual changed as of January 1, 1960 to a full benefit at age 0 but allows no policy dates for ages under one month. For younger ages, we use one month's short-term insurance for one-fourth of the face amount.

MR. RICHARD G. RINK: Where reduced short-term insurance is used, safeguards appear necessary to avoid having four times the desired amount issued and having that reduced to one-fourth at the end of the short-term, which would produce a level benefit.

MR. HARRY M. SARASON: The purpose of the reduced benefit at age 0 is to avoid speculation and issuance of amounts incommensurate with the amount of insurable interest, not to reduce claim payments, *per se*, or to avoid negative reserves. Overinsurance cannot be avoided by limiting the amount on one policy. In considering what constitutes overinsurance we must, from time to time, take into consideration changes in purchasing power of the dollar.

MR. PAUL E. MARTIN.*

* Mr. Martin repeated the discussion on section B which he had given at the Toronto regional meeting.