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**REVISED TABLES FOR MAJOR MEDICAL BENEFITS**

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**ABSTRACT**

This paper is presented for the purpose of updating major medical tables published originally in 1961 (*TSA*, XIII, 497). The 1961 Tables were prepared for gross premium purposes at a time when almost no published experience was available. Since that time emerging experience has shown that the 1961 Tables are seriously inadequate at many points. This paper presents revised 1968 Tables based on the actual experience of two companies, consisting of approximately \$14,400,000 in benefits paid on approximately 24,000 claims.

The new tables are constructed in a form similar to the 1961 Tables, in order that they may be used to construct claim costs for a wide variety of plans, with varying deductibles, maximums, and inside limits.

An additional table has also been added to these 1968 Tables. This table, included at the end of the paper as Table 5, provides factors for converting the "ultimate" values given in the basic tables to select period values, using a five-year select period. The factors provided vary, in addition to duration, by age, sex, and deductible amount.

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**T**HE purpose of this brief paper is to update the major medical tables that were originally published in Volume XIII of the *Transactions*;<sup>1</sup> they will be referred to hereinafter as the "1961 Tables." As described in the original paper, those tables were derived by synthetic methods for use in gross premium computation. At that time almost nothing was available by way of published data for use in the computation of variable plans of individual and family major medical insurance, and the 1961 Tables were prepared as a basis for the generation of claim costs for a wide variety of major medical plans.

Since then, it has become possible to observe actual experience on a large volume of business, written on the variable plan basis, for which the 1961 Tables were prepared. As a result of this observed experience, it became evident that revisions in the 1961 Tables were essential; at certain points the 1961 Tables produced adequate or even slightly conservative values, but in general the tables proved seriously inadequate, a result

<sup>1</sup> "Some New Tables for Major Medical and Disability Benefits," *TSA*, XIII, 497.

confirmed by the experience of many actuaries. This paper presents a revised set of tables, reconstructed on the basis of the actual claim experience mentioned. These new tables will be referred to hereinafter as the "1968 Tables." They are tables that thus stand no longer on a purely "synthetic" base but may be considered experience tables supported by a considerable volume of actual claim data.

#### I. EXPERIENCE DATA EMPLOYED

The data accumulated as a basis for construction of the 1968 Tables are the combined experience of two major writers of individual and family major medical insurance. These companies made their data available to me not for the purpose of publishing their actual experience as such but for the purpose of revision of the 1961 Tables. Accordingly, this paper represents only in an indirect way the reporting of actual claim experience, its direct purpose being that of publication of revised tables superseding the original 1961 Tables.

The data supplied by Company A include claims incurred over the calendar years 1961-65, totaling approximately \$7,900,000 paid out on more than 11,000 claims. The data supplied by Company B include claims incurred over the calendar years 1963-67, totaling approximately \$6,500,000 paid out on almost 13,000 claims. The combined data, covering almost 24,000 claims, are thus quite considerable in volume.

Both companies have issued a wide range of deductibles, from \$50 to \$1,000, using a "variable" program in which the amount of hospital room limit provided under any one policy may vary widely. As a result, the nature of the data provided is highly appropriate for construction of the form of claim cost tables here presented.

In general, the experience of Company B appears to have run about 10 per cent higher than that of Company A, the experience tending to run relatively higher, compared to Company A, on the higher deductibles. For the most part, however, the experiences of the two companies were reasonably consistent, and the 1968 Tables are based on the composite experience. The business of both companies tends to be concentrated in the three-quarters of the United States *excluding* the Northeast, with about one-third of the total claim experience occurring in California.

As to underwriting, I would regard the practices of both companies as being slightly on the conservative side of average standards. In general, the business was issued nonmedically up to age 40. Between ages 40 and 50 applicants for the higher-limit plans were medically examined, and above age 50 the business was all medically examined except for a few plans with very low limits that were issued nonmedically at these ages. Doctors'

statements, however, were widely obtained at all ages, even on relatively minor indications.

In the case of Company B, paid development of the incurred claims was observed through June, 1968. This means that the development is incomplete for 1967 incurred claims and not entirely developed even on 1966 incurred claims. However, these incomplete claims were projected on the basis of their known development, as related to closed claims, and it is believed that this undeveloped fraction of the experience observed cannot have any significant effect on the results.

## II. DESCRIPTION OF THE 1968 TABLES

The revised tables are shown at the end of this paper. There are five of them—each of the first four corresponds with the table of the same number in the 1961 Tables, but Table 5 is a new table that provides adjustment factors for select durations, the first four basic tables representing *ultimate* claim cost levels.

The four basic tables are used for calculation of specific annual claim costs in the same manner as the 1961 Tables were used. The form of the tables permits determination of costs at any desired level by means of a factor derived in a very simple manner from the given assumed level of prevailing costs. This factor device also provides a basis for projection of costs into the future.

Each table presents values for calculation of claim costs for a particular benefit formula in which all limits are described in "units" rather than in dollars. The dollar value of each unit, or "unit value" (u.v.), is the factor referred to above, and any given limit expressed in units is convertible to the desired dollar equivalent merely by multiplying by the proper unit value.

The tables rest on the assumption that the claim cost varies linearly with unit value. The experience showed some evidence that this assumption becomes somewhat more *conservative* the higher the unit value, but the degree of this shift appears to be small enough so that this highly practical and convenient assumption can be retained. Stated algebraically, this is simply  $S = ka + b$ , where  $S$  is the desired annual claim cost and  $k$  is the corresponding unit value. The tables provide the constants  $a$  and  $b$ .

Each table provides these constants for a basic deductible of 150 units in combination with any of three maximum benefit choices and gives, in addition, pairs of constants for computing the additional cost resulting when the deductible is reduced to any of six lower amounts. Twenty-one deductible-maximum combinations are thus given (with others obtainable by interpolation), and any of these may be computed at any desired

unit value, so that the tables have very great flexibility. Theoretically, of course, the increment in claim cost arising from reducing the deductible by a given amount will be greater the larger the maximum benefit, since less offsetting cost is being cut off at the maximum end of the continuance interval. This difference is negligible and is therefore ignored.

Table 1 gives costs for a benefit formula paying 75 per cent of the amount by which eligible expenses exceed the deductible. Eligible hospital room and board expense is assumed to occur at the rate of five units daily. Surgeons' and physicians' fees are assumed to occur according to the weighting of the *California Relative Value Study* (4th ed., 1964). These room and board and fee rates may be governed by inside limits in the policy or may be assumed to be the rate of payout actually anticipated under a plan without inside limits. Thus a \$5 unit-value assumption is equivalent to an expected payout of \$25 per day for hospital room and board and, as examples of surgeons' fees, of \$200 for an appendectomy and of \$500 for a total gastrectomy.

If costs for an 80 per cent reimbursement formula are desired, the error in simply using 80/75 of the table values should not be excessive.

As an example of cost computation for a specific dollar benefit formula, let us use Table 1 to obtain the cost of claim for a man, aged 45, for benefits covering up to \$25 daily hospital room, \$1,000 professional services schedule, and paying 75 per cent of eligible charges over a \$500 deductible up to a \$15,000 maximum benefit. From the table we obtain:

	<i>a</i>	<i>b</i>
For 150/3,000	: 2.97	9.41
To reduce to 100/	: 1.47	2.80
	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
Total (for 100/3,000):	4.44	12.21

Thus the desired cost for \$500/\$15,000 is  $(5 \times 4.44) + 12.21 = \$34.41$ .

It is very important to note the *differences* between this benefit formula and that used with Table 1 of the 1961 Tables, especially if any comparison between the two is to be made. The 1961 Tables assumed *four* units as the room and board expense rate, with surgeons' and physicians' fees incurred at the values of the second edition (1957) of the *California Relative Value Study* (CRV). This means that the same \$5 unit value, for example, does *not* produce the same benefit. In Table 1 of the 1961 Tables this would produce a room and board rate of \$20 combined with medical fees at the levels of a \$500 1957 CRV Schedule. In Table 1 of the 1968 Tables, a \$5 unit value yields a room and board rate of \$25, combined with medical fees at the level of a \$1,000 1964 CRV Schedule. A \$1,000 1964 CRV Schedule is worth (very roughly) 125 per cent of a \$500 1957

CRV Schedule, so both hospital room and medical limits may be assumed to be 25 per cent higher, with any given unit value, under the 1968 Tables than they were under the 1961 Tables.

Table A gives an example comparison of the 1968 Table 1 with the 1961 Table 1. Note that, since *different* unit values must be regarded as *equivalent*, it is necessary to use different *numbers* of deductible *units* from the two tables. Theoretically a similar adjustment is needed for the maximum benefit, but this adjustment (at least as required for the particular maximums valued in Table A) would be very slight and is therefore ignored.

TABLE A  
EXAMPLE COMPARISON OF 1968 TABLE 1  
WITH 1961 TABLE 1

Sex and Age	1961 Table 1	1968 Table 1	Ratio 1968/1961
Men:			
25.....	\$14.23	\$ 14.45	101.5%
45.....	29.51	38.85	131.6
65.....	77.40	117.28	151.5
Women:			
25.....	19.55	19.30	98.7
45.....	39.33	49.60	126.1
65.....	68.68	98.70	143.7
Children...	5.45	5.29	97.1

NOTE.—1961 Table 1: \$7.50 unit value; 80/3,000 plan = \$30 room; \$750 1957 CRV Schedule; \$22,500 maximum; \$600 deductible. 1968 Table 1: \$6.00 unit value; 100/3,000 plan = \$30 room; \$1,200 1964 CRV Schedule; \$18,000 maximum; \$600 deductible.

Table A gives some measure of the degree of *increase* in claim costs of the 1968 Tables over the 1961 Tables, although the actual ratios will be found to vary considerably, with the choice of deductible especially.

Another difference in the 1968 Tables is that the 2,000 unit maximum has been dropped (this may be obtained readily, with reasonable accuracy, using a 60-40 interpolation between 1,000-unit and 3,000-unit claim costs), and an *unlimited* maximum added. Tables 2, 3, and 4 differ from their 1961 equivalents in the same manner as Table 1.

Table 2 gives costs for a formula identical to that of Table 1 except that the assumption as to surgeons' and physicians' fees is 150 per cent of that in Table 1. Thus a \$5 unit-value assumption leads to an expected fee of \$300 for an appendectomy and of \$750 for a total gastrectomy, along with a \$25 daily hospital room and board payout rate.

One or the other of the Table 1 or Table 2 assumptions as to relative payout rates for hospital room and professional fees appears to be

satisfactory in almost every geographical area and over most policyholder-income levels.

Table 3 gives costs for an alternate type of benefit formula that has been in rather common use, since it has certain advantages over the formula involved in Tables 1 and 2.

The formula defines eligible expense as 100 per cent of hospital room and board charges (assumed to occur at a rate of five units daily), 100 per cent of surgeons' and anesthesiologists' fees (again assumed to occur at the relative levels of the 1964 California Relative Value Study), and 80 per cent of other medical expenses, which include nonsurgical professional fees also assumed to occur at the relative levels of the 1964 CRV. These hospital room and professional rates again may be controlled by inside limits or assumed as the expected rates of charge. Plans using this 100-80 per cent insurance basis generally do contain the inside limits in the contract.

The formula then calls for payment of the amount by which eligible expense exceeds the deductible. Note that this approach applies the "coinsurance" factor to eligible expense before subtracting the deductible.

Table 4 gives costs for a formula identical to that of Table 3 except that for professional fees 150 per cent of the 1964 California scale is assumed in combination with the five-unit daily rate for hospital room and board.

The 100-80 per cent formula of Tables 3 and 4 is advantageous when used with an inside limit contract, since the higher insurance percentage offsets any coverage "disadvantage" involved in the limits themselves. There has been criticism of scheduled limits in major medical policies both within and outside the insurance industry. Scheduling, however, offers other advantages than those of limiting the liability of the insurer and guarding against gross overcharging. It permits a very simple and practical basis of adjusting price to both geographical and income levels. A program with flexible limits permits a prospect to pay for the amount of coverage he needs. With two-bed room rates varying from as little as \$20 a day in some localities to as much as \$60 a day elsewhere and with a similar variation in fees, as well as a second major dimension of fee variation by patient-income level, it is difficult to see how some companies justify charging one scale of rates to everybody everywhere. The average-income policyholder winds up subsidizing his wealthier neighbor's fee charges, and the resident of a small North Carolina town helps to pay the hospital bills of urban Californians—hardly an equitable situation. Some companies use area rating or income adjustments in the coverage formula, but the practical solution afforded by flexible schedule limits, long ac-

cepted as a perfectly natural feature of hospital-surgical policies, seems simpler, more logical, and more versatile.

No particular assumptions are incorporated into Tables 1-4 with regard to length of benefit period, deductible qualification period, or other refinements. The tables may be assumed to apply to average provisions, and use of abnormally liberal or restrictive features will call for some adjustment. Mental illness is assumed to be essentially excluded and pregnancy coverage limited to complications only. Finally, it is assumed that some reasonable basis is provided for eventual restoration of the maximum limit in the event of a recurrence of cause.

Table 5 presents percentage adjustments that may be used to modify the ultimate claim costs derived from any of the four basic tables to fit select durations. The experience indicated that a select period assumption of five years seems appropriate for major medical coverage. In addition, the select factors required vary somewhat by age and sex and quite significantly by deductible. Table 5 provides factors for five ages; factors for intervening ages may be readily obtained by interpolation. Factors are shown for deductibles of 100 and 20 units. While this does not provide a sufficiently complete "grid" for routine interpolation for other deductibles, it should give sufficient indication so that users of the tables may develop reasonable adjustments for other deductible amounts.

### III. COMPARISON WITH "1967 TSA REPORTS"

The question immediately arises of how these 1968 Table values compare with other current published data. The only other current source of published data on major medical costs of which I am aware is the material presented in the *1967 TSA Reports* by the Society's Committee on Experience under Individual Medical Expense Policies. Accordingly, Table B presents a comparison of 1968 Table 1 with Table 22 of the Committee's report (*1967 TSA Reports*, p. 106). As a basis of comparison, I have employed a \$5 unit value in converting Table 1 and have developed costs for a \$500 deductible/\$10,000 maximum benefit plan. This maximum is equivalent to 2,000 units, so I employed a 60-40 interpolation between the costs for 1,000 units (\$5,000) and 3,000 units (\$15,000) to approximate costs for a \$10,000 maximum. For the deductible, 100 units were used, of course, as the equivalent of \$500. It was also necessary to perform age interpolation to obtain the central ages equivalent to the five-year age bands of Table 22.

The most striking fact about the comparison in Table B is that, for male lives, 1968 Table 1 grades much less steeply by age than Table 22 does. It starts out significantly higher, peaks at a ratio of 187.5 per cent at

age 32, and after that is so much flatter that it falls to only 90.9 per cent of Table 22 at age 62. The costs for women stay much more parallel with the age slope of Table 22. Since the ratios for the adults tend, in general, to stay above 100 per cent, I find the 76.2 per cent ratio for children rather surprising.

TABLE B  
COMPARISON OF 1968 TABLE 1 WITH TABLE 22  
OF "1967 TSA REPORTS"\*  
(1968 Table 1 Values Calculated for \$500/\$10,000 Plan with \$25 Room  
[\$5 Unit Value])

TABLE 22, "1967 REPORTS"		1968 TABLE 1		RATIO OF 1968 TABLE 1 TO TABLE 22
Attained Age	Claim Cost	Central Age	Claim Cost	
<b>MEN</b>				
20-24	\$ 8.08	22	\$11.34	140.3%
25-29	8.83	27	13.58	153.8
30-34	8.99	32	16.86	187.5
35-39	15.95	37	21.63	135.6
40-44	22.49	42	28.38	126.2
45-49	35.07	47	37.50	106.9
50-54	47.08	52	49.55	105.2
55-59	69.27	57	65.27	94.2
60-64	93.92	62	85.37	90.9
65-69	120.71	67	110.55	91.6
<b>WOMEN</b>				
20-24	\$14.34	22	\$14.46	100.8%
25-29	18.84	27	19.65	104.3
30-34	21.71	32	25.84	119.0
35-39	25.90	37	32.73	126.4
40-44	33.03	42	40.00	121.1
45-49	42.61	47	46.77	109.8
50-54	51.30	52	53.37	104.0
55-59	56.30	57	62.52	111.0
60-64	61.79	62	76.12	123.2
65-69	77.50	67	96.08	124.0
<b>CHILDREN—ALL AGES</b>				
.....	\$ 6.34	.....	\$ 4.83	76.2%

\* Table 22, "Experience under Individual Medical Expense Policies, 1964-65" (p. 106).



Part of the explanation for the fact that 1968 Table 1 tends to run above 100 per cent of Table 22 probably lies in the fact that Table 22 applies to durations 3 and later, whereas 1968 Table 1 is meant to be an "ultimate" table applying to durations 6 and later. It could also be due in part to the possibility that my choice of a \$5 unit value for Table 1 is too high. It could also be due in part to the possibility that 1968 Table 1 includes a relatively rich level of medical fees in relation to the five-unit room rate level. Any of these explanations would render the 76 per cent ratio for children all the more inconsistent.

It is difficult to suggest any coherent explanation for the other differences. In part, they may result from different underwriting characteristics of the business observed; from the fact that *all* of the data underlying the 1968 Tables are on policies with flexible inside scheduled limits, whereas the bulk of the data behind Table 22 is on completely unscheduled policies; or perhaps from dissimilar distribution of the two bodies of data by policy duration or by geography.

In general, I do not find the comparison too inconsistent or disappointing, in view of the many potential causes of divergence between the two.

One important point should be emphasized here. If \$5 is a reasonable unit-value conversion factor for comparison of 1968 Table 1 costs with the 1964-65 *experience* underlying Table 22, then some higher unit value becomes appropriate for projection to any experience interval later than 1964-65 in evaluating, or making comparisons with, costs arising from *unscheduled plans*. Table 30 (p. 113) of the Committee Report shows how powerful the secular trend here actually is: the 1964 ratio for all adults is 89 per cent, while the 1965 ratio is 112 per cent, as related to an "expected" scale built on both years combined. This points up once again one of the great advantages inherent in tables constructed in the manner of these 1968 Tables. If the probable level of room rates and medical fees is known, or can be reasonably estimated or projected, secular trend can be accounted for by building in an increasing unit-value conversion factor on top of the select period factors, for as many durations as seem practical or appropriate. Similar adjustments may be made to adapt the level of claim costs to different calendar-year periods.

#### IV. COMPARISON OF FEMALE WITH MALE COSTS

As far as I am aware, the 1961 Tables were the first published data of any kind which anticipated the fact that under major medical coverage female costs would fall distinctly below the male costs at the higher ages. Both the data underlying these 1968 Tables and the costs displayed in Table 22 of the *1967 TSA Reports* confirm that in this respect the 1961

Tables embodied a correct relative prediction. This relationship is quite definite and, in my opinion, may by now be considered quite clearly established. Furthermore, the difference is sufficiently significant (even more in Table 22 than in the 1968 Tables), so that in the future it may be expected that equitable rate-making in the major medical field will necessarily lead to premium rates that, above a certain age, will be lower for women than for men.

TABLE C  
COMPARISON OF FEMALE TO MALE ANNUAL CLAIM COSTS  
BY AGE AND SIZE OF DEDUCTIBLE\*

AGE	150/3,000 (\$900 DED./\$18,000 MAX.)			80/3,000 (\$480 DED./\$18,000 MAX.)			10/3,000 (\$60 DED./\$18,000 MAX.)		
	Men	Women	Ratio W/M	Men	Women	Ratio W/M	Men	Women	Ratio W/M
25. ....	\$ 9.15	\$10.11	110.5%	\$ 17.38	\$ 24.59	141.5%	\$ 42.35	\$ 61.62	145.5%
35. ....	15.32	18.97	123.8	26.07	40.18	154.1	53.56	86.40	161.3
45. ....	27.23	30.10	110.5	43.71	58.79	134.5	79.21	112.20	141.6
55. ....	49.57	41.97	84.7	75.69	76.03	100.4	127.20	136.69	107.5
65. ....	88.85	67.92	76.4	128.25	112.24	87.5	191.25	179.81	94.0

\* Claim costs valued on 1968 Table 1 at \$6 unit value (\$30 daily hospital room; \$1,200 1964 CRV Schedule).

The ratios of female to male costs depend quite heavily on the size of the deductible, in addition to age, as would be expected simply from reviewing the entire Individual Medical Expense Report in the *1967 TSA Reports*, where comparison of claim costs by sex shows a much more radical shift under the \$500 deductible Major Medical benefit (i.e., Table 22) than under basic hospital and surgical benefits.

Table C gives some illustrative comparisons between the sexes with respect to age and size of deductible.

TABLE 1

ANNUAL CLAIM COST,  $S$ , FOR BENEFIT PAYING 75 PER CENT OF AMOUNT BY WHICH ELIGIBLE EXPENSES EXCEED DEDUCTIBLE—  
HOSPITAL ROOM CHARGE ELIGIBLE AT 5 UNITS DAILY; PROFESSIONAL SERVICES ELIGIBLE AT 100 PER CENT OF 1964 CRV SCHEDULE

( $S = ka + b$ ;  $k$  = Unit Value in Dollars)

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	
Men:																			
15.....	0.64	2.93	0.73	3.01	0.74	3.07	4.01	8.22	3.18	5.48	2.22	3.55	1.49	2.69	0.96	2.05	0.58	1.46	
20.....	0.66	2.99	0.78	3.27	0.80	3.34	3.94	8.61	3.15	5.83	2.21	3.69	1.46	2.70	0.95	2.11	0.57	1.48	
25.....	0.76	3.59	0.90	3.75	0.92	3.83	4.02	9.08	3.15	6.25	2.22	3.91	1.50	2.81	1.01	2.17	0.63	1.52	
30.....	0.96	4.39	1.10	4.53	1.13	4.63	4.21	9.76	3.29	6.87	2.33	4.24	1.67	3.07	1.13	2.27	0.72	1.68	
35.....	1.30	5.65	1.58	5.84	1.62	5.99	4.62	10.52	3.69	7.71	2.62	4.73	1.98	3.41	1.37	2.53	0.91	1.86	
40.....	1.85	7.15	2.17	7.47	2.23	7.67	5.31	11.79	4.28	8.79	3.11	5.48	2.38	4.03	1.68	2.94	1.17	2.21	
45.....	2.62	9.07	2.97	9.41	3.06	9.69	6.27	14.36	5.13	11.00	3.73	6.85	2.89	5.03	2.12	3.76	1.47	2.80	
50.....	3.60	11.70	4.15	12.27	4.30	12.70	7.56	19.26	6.17	15.37	4.56	9.85	3.53	7.02	2.57	5.35	1.83	3.64	
55.....	4.94	15.07	5.61	15.91	5.83	16.55	9.10	23.03	7.49	18.56	5.48	12.41	4.29	9.13	3.21	6.86	2.26	4.92	
60.....	6.62	19.00	7.60	20.21	7.94	21.12	10.72	24.86	8.92	20.53	6.64	13.79	5.30	10.33	4.08	7.79	2.88	5.71	
65.....	9.34	23.64	10.50	25.85	11.03	27.14	12.67	26.38	10.66	21.95	8.19	14.49	6.78	10.76	5.22	8.08	3.74	5.99	
70.....	12.94	28.67	14.30	32.11	15.12	33.94	14.79	27.62	12.64	22.92	10.07	15.14	8.37	10.92	6.70	7.99	4.87	5.84	
75.....	17.49	33.93	19.07	39.24	20.31	41.79	17.11	28.95	15.13	23.99	12.16	15.53	10.31	10.81	8.46	7.69	6.23	5.30	

TABLE 1—Continued

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Women:																			
15.....	0.31	3.42	0.32	3.46	0.33	3.49	4.35	8.69	3.47	5.68	2.71	4.23	1.76	3.15	1.09	2.38	0.61	1.70	
20.....	0.46	4.57	0.47	4.63	0.48	4.68	5.41	10.88	4.33	7.29	3.43	5.26	2.29	3.82	1.46	2.86	0.85	2.05	
25.....	0.66	5.94	0.67	6.09	0.68	6.16	6.42	12.99	5.14	8.89	4.17	6.31	2.82	4.56	1.85	3.38	1.12	2.47	
30.....	0.99	7.87	1.00	7.97	1.01	8.07	7.41	15.09	5.99	10.58	4.85	7.34	3.38	5.35	2.30	4.02	1.45	2.97	
35.....	1.44	10.11	1.46	10.21	1.48	10.36	8.39	17.09	6.89	12.39	5.63	8.52	4.01	6.22	2.75	4.71	1.79	3.53	
40.....	2.02	12.48	2.04	12.69	2.07	12.91	9.29	19.14	7.74	14.23	6.55	9.86	4.62	7.17	3.31	5.45	2.20	4.10	
45.....	2.47	14.77	2.50	15.10	2.55	15.39	10.14	21.26	8.50	16.38	6.96	11.46	5.15	8.17	3.73	6.31	2.48	4.62	
50.....	2.94	16.96	2.98	17.40	3.05	17.78	10.78	23.41	9.01	18.56	7.35	13.05	5.54	9.48	3.96	7.34	2.69	5.31	
55.....	3.61	19.33	3.67	19.95	3.76	20.45	11.54	25.48	9.70	20.65	7.87	14.71	5.93	10.92	4.29	8.32	2.90	6.01	
60.....	4.55	22.20	4.63	23.09	4.77	23.78	12.42	27.17	10.54	22.44	8.51	16.13	6.51	12.01	4.82	9.23	3.23	6.65	
65.....	6.46	26.71	6.63	28.14	6.86	29.12	13.86	28.73	11.74	24.18	9.74	17.53	7.77	13.11	5.74	9.88	3.94	7.14	
70.....	9.50	32.48	9.72	34.32	10.11	35.69	15.57	30.18	13.03	25.62	11.36	18.71	9.29	14.05	7.02	10.52	4.89	7.52	
75.....	14.06	39.16	14.45	41.85	15.10	43.73	17.64	31.85	15.75	27.23	13.44	19.92	11.07	15.06	8.66	11.07	6.22	7.89	
Children.....	0.18	1.45	0.20	1.49	0.21	1.52	3.23	9.74	2.31	6.26	1.31	4.06	0.75	3.02	0.38	2.10	0.20	1.40	

TABLE 2

ANNUAL CLAIM COST,  $S$ , FOR BENEFIT PAYING 75 PER CENT OF AMOUNT BY WHICH ELIGIBLE  
EXPENSES EXCEED DEDUCTIBLE—HOSPITAL ROOM CHARGE ELIGIBLE AT 5 UNITS  
DAILY; PROFESSIONAL SERVICES ELIGIBLE AT 150 PER CENT OF 1964 CRV SCHEDULE  
( $S = ka + b$ ;  $k$  = Unit Value in Dollars)

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	
Men:																			
15.....	0.72	3.28	0.83	3.37	0.85	3.44	4.41	9.04	3.49	6.02	2.44	3.90	1.63	2.95	1.05	2.25	0.63	1.60	
20.....	0.75	3.34	0.88	3.66	0.90	3.73	4.33	9.47	3.46	6.41	2.43	4.05	1.60	2.97	1.04	2.32	0.62	1.62	
25.....	0.86	4.02	1.02	4.20	1.04	4.29	4.42	9.98	3.46	6.87	2.44	4.30	1.65	3.09	1.11	2.38	0.69	1.67	
30.....	1.10	4.91	1.26	5.07	1.29	5.19	4.63	10.73	3.61	7.55	2.56	4.66	1.83	3.37	1.24	2.49	0.79	1.84	
35.....	1.49	6.38	1.81	6.59	1.86	6.75	5.12	11.57	4.09	8.48	2.90	5.20	2.19	3.75	1.52	2.78	1.01	2.04	
40.....	2.14	8.07	2.51	8.44	2.58	8.67	5.89	13.08	4.75	9.75	3.45	6.08	2.64	4.47	1.86	3.26	1.29	2.45	
45.....	3.06	10.24	3.47	10.63	3.57	10.95	7.02	15.93	5.74	12.21	4.17	7.60	3.23	5.58	2.37	4.17	1.64	3.10	
50.....	4.24	13.33	4.89	13.98	5.06	14.47	8.54	21.37	6.97	17.06	5.15	10.93	3.98	7.79	2.90	5.93	2.06	4.04	
55.....	5.87	17.17	6.67	18.13	6.94	18.86	10.37	25.79	8.53	20.78	6.24	13.89	4.89	10.22	3.65	7.68	2.57	5.51	
60.....	7.94	21.85	9.12	23.24	9.53	24.29	12.32	27.84	10.25	22.99	7.63	15.44	6.09	11.56	4.69	8.72	3.31	6.39	
65.....	11.30	27.42	12.70	29.98	13.34	31.48	14.69	29.80	12.36	24.80	9.50	16.37	7.86	12.15	6.05	9.13	4.33	6.76	
70.....	15.78	33.54	17.44	37.56	18.43	39.70	17.30	31.48	14.78	26.12	11.78	17.25	9.79	12.44	7.83	9.10	5.69	6.65	
75.....	21.51	40.03	23.45	46.30	24.97	49.31	20.18	33.29	17.85	27.58	14.34	17.85	12.16	12.43	9.98	8.84	7.35	6.09	

TABLE 2—Continued

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Women:																			
15.....	0.35	3.83	0.36	3.87	0.37	3.91	4.78	9.55	3.81	6.24	2.98	4.65	1.93	3.46	1.19	2.61	0.67	1.87	
20.....	0.52	5.11	0.53	5.18	0.54	5.23	5.95	11.96	4.76	8.01	3.77	5.78	2.51	4.20	1.60	3.14	0.93	2.25	
25.....	0.75	6.65	0.76	6.82	0.77	6.90	7.06	14.28	5.65	9.77	4.58	6.94	3.10	5.01	2.03	3.71	1.23	2.71	
30.....	1.13	8.81	1.15	8.92	1.16	9.04	8.15	16.59	6.58	11.63	5.33	8.07	3.71	5.88	2.53	4.42	1.59	3.26	
35.....	1.65	11.42	1.67	11.53	1.70	11.70	9.31	18.79	7.64	13.62	6.24	9.37	4.45	6.84	3.05	5.18	1.98	3.88	
40.....	2.34	14.10	2.36	14.33	2.40	14.57	10.31	21.24	8.59	15.79	7.27	10.94	5.12	7.95	3.67	6.04	2.44	4.55	
45.....	2.88	16.69	2.92	17.06	2.98	17.38	11.35	23.59	9.52	18.18	7.79	12.72	5.76	9.06	4.17	7.00	2.77	5.12	
50.....	3.46	19.33	3.51	19.83	3.59	20.27	12.18	25.98	10.18	20.60	8.30	14.48	6.26	10.52	4.47	8.14	3.03	5.89	
55.....	4.29	22.03	4.36	22.74	4.47	23.31	13.15	28.53	11.05	23.12	8.97	16.47	6.76	12.23	4.89	9.31	3.30	6.73	
60.....	5.46	25.53	5.55	26.55	5.72	27.35	14.28	30.43	12.12	25.13	9.78	18.06	7.48	13.45	5.54	10.33	3.71	7.44	
65.....	7.81	30.98	8.02	32.64	8.30	33.78	16.07	32.46	13.61	27.32	11.29	19.80	9.01	14.81	6.65	11.16	4.57	8.06	
70.....	11.59	38.00	11.85	40.15	12.32	41.76	18.21	34.40	15.25	29.20	13.29	21.32	10.86	16.01	8.21	11.99	5.72	8.57	
75.....	17.29	46.20	17.77	49.38	18.57	51.60	20.81	36.62	18.58	31.31	15.85	22.90	13.06	17.31	10.21	12.73	7.33	9.07	
Children.....	0.21	1.62	0.23	1.67	0.24	1.71	3.55	10.71	2.54	6.88	1.44	4.48	0.83	3.34	0.43	2.35	0.22	1.55	

TABLE 3

ANNUAL CLAIM COST,  $S$ , FOR BENEFIT PAYING AMOUNT BY WHICH ELIGIBLE EXPENSES EXCEED DEDUCTIBLE—HOSPITAL ROOM CHARGES 100 PER CENT ELIGIBLE AT 5 UNITS DAILY; SURGEONS' AND ANESTHESIOLOGISTS' SERVICES 100 PER CENT ELIGIBLE AT 100 PER CENT OF 1964 CRV SCHEDULE; OTHER EXPENSES 80 PER CENT ELIGIBLE, INCLUDING OTHER DOCTORS' SERVICES AT 100 PER CENT OF 1964 CRV SCHEDULE

( $S = ka + b$ ;  $k$  = Unit Value in Dollars)

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	
Men:																			
15.....	0.72	2.68	0.84	2.77	0.86	2.81	4.82	8.21	4.58	4.94	2.66	3.74	1.75	2.93	1.10	2.23	0.65	1.58	
20.....	0.75	2.87	0.88	3.01	0.89	3.05	4.65	8.59	3.93	5.35	2.49	3.81	1.70	2.95	1.08	2.24	0.62	1.59	
25.....	0.83	3.29	1.00	3.48	1.02	3.53	4.69	9.12	4.30	5.79	2.55	3.95	1.78	3.07	1.15	2.32	0.67	1.63	
30.....	1.07	4.07	1.27	4.26	1.30	4.32	4.93	9.81	4.52	6.42	2.77	4.30	1.93	3.28	1.28	2.50	0.79	1.81	
35.....	1.52	5.16	1.83	5.44	1.86	5.54	5.41	10.80	5.01	7.34	3.15	4.78	2.20	3.64	1.54	2.77	0.98	2.02	
40.....	2.14	6.61	2.54	7.01	2.65	7.17	6.20	12.25	5.68	8.56	3.77	5.57	2.69	4.18	1.92	3.18	1.30	2.31	
45.....	2.96	8.67	3.46	9.15	3.55	9.38	7.34	14.55	6.66	10.56	4.53	6.63	3.48	5.03	2.53	3.81	1.74	2.79	
50.....	3.99	11.27	4.71	12.02	4.85	12.39	8.83	18.18	7.90	13.24	5.53	8.53	4.35	6.32	3.19	4.73	2.25	3.59	
55.....	5.36	14.72	6.32	15.75	6.55	16.32	10.64	22.02	9.56	16.37	6.71	10.78	5.39	7.95	4.02	5.93	2.86	4.47	
60.....	7.24	18.74	8.57	20.20	8.92	21.03	12.67	25.43	11.38	19.63	8.19	13.06	6.51	9.87	5.01	7.41	3.54	5.43	
65.....	10.40	23.64	11.98	25.63	12.54	26.83	14.80	28.56	13.99	22.67	9.94	15.14	7.91	11.87	6.31	8.70	4.53	6.35	
70.....	14.46	29.21	16.45	31.84	17.33	33.52	17.11	31.20	16.02	25.02	12.19	17.38	9.77	13.18	7.92	9.93	5.73	7.27	
75.....	19.52	35.52	22.14	38.85	23.46	41.19	19.69	34.01	18.01	27.70	14.22	19.45	12.00	14.67	9.78	11.10	7.16	8.22	

TABLE 3—Continued

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Women:																			
15.....	0.29	3.17	0.30	3.22	0.31	3.25	6.28	10.33	4.95	6.71	3.23	4.64	1.99	3.65	1.16	2.77	0.61	1.94	
20.....	0.40	4.32	0.41	4.41	0.43	4.46	7.75	13.03	6.08	8.44	4.14	5.70	2.61	4.45	1.56	2.91	0.82	2.25	
25.....	0.66	5.70	0.67	5.81	0.68	5.89	9.22	15.70	7.26	10.28	5.04	6.73	3.31	5.17	2.07	3.88	1.17	2.73	
30.....	1.03	7.73	1.04	7.85	1.05	7.97	10.54	18.13	8.39	12.24	5.88	7.75	4.03	5.86	2.65	4.60	1.62	3.37	
35.....	1.56	9.98	1.58	10.27	1.61	10.43	11.89	20.30	9.50	14.26	6.80	8.85	4.81	6.57	3.28	5.31	2.09	4.00	
40.....	2.07	12.28	2.09	12.61	2.12	12.82	13.20	22.76	10.54	16.13	7.69	10.03	5.63	7.36	3.89	5.92	2.55	4.59	
45.....	2.54	14.31	2.58	14.79	2.63	15.09	14.32	25.78	11.47	17.79	8.53	11.35	6.25	8.35	4.46	6.58	2.89	5.04	
50.....	3.00	16.37	3.06	16.93	3.13	17.33	15.15	28.56	12.26	19.72	9.16	12.71	6.84	9.68	4.90	7.45	3.20	5.57	
55.....	3.59	17.93	3.67	18.60	3.76	19.07	15.51	30.27	12.72	21.96	9.75	14.44	7.28	11.06	5.21	8.49	3.48	6.29	
60.....	4.64	19.92	4.76	20.95	4.88	21.52	16.24	31.50	13.50	23.97	10.31	16.33	7.85	12.19	5.68	9.68	3.75	7.03	
65.....	6.96	23.54	7.17	25.39	7.38	26.16	17.82	31.81	15.00	25.74	11.46	17.66	9.08	13.38	6.73	10.32	4.48	7.48	
70.....	10.87	29.12	11.31	31.69	11.69	32.77	20.18	33.68	17.14	27.30	14.03	18.56	11.02	14.17	8.50	10.76	5.78	7.78	
75.....	14.50	34.35	15.04	37.19	15.64	38.68	22.37	35.29	20.16	28.70	16.79	19.50	13.93	14.80	10.86	11.00	7.76	8.03	
Children.....	0.25	1.40	0.27	1.43	0.29	1.45	3.74	9.46	2.69	6.15	1.46	4.12	0.80	2.99	0.40	2.09	0.24	1.35	



TABLE 4

ANNUAL CLAIM COST,  $S$ , FOR BENEFIT PAYING AMOUNT BY WHICH ELIGIBLE EXPENSES EXCEED DEDUCTIBLE—HOSPITAL ROOM CHARGES 100 PER CENT ELIGIBLE AT 5 UNITS DAILY; SURGEONS' AND ANESTHESIOLOGISTS' SERVICES 100 PER CENT ELIGIBLE AT 150 PER CENT OF 1964 CRV SCHEDULE; OTHER EXPENSES 80 PER CENT ELIGIBLE, INCLUDING OTHER DOCTORS' SERVICES AT 150 PER CENT OF 1964 CRV SCHEDULE

$$(S = ka + b; k = \text{Unit Value in Dollars})$$

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Men:																			
15.....	0.81	2.96	0.94	3.07	0.97	3.12	5.25	8.94	4.99	5.39	2.89	4.08	1.90	3.19	1.20	2.43	0.70	1.71	
20.....	0.84	3.18	1.00	3.33	1.02	3.38	5.06	9.35	4.77	5.83	2.71	4.15	1.85	3.21	1.18	2.44	0.67	1.73	
25.....	0.94	3.69	1.14	3.88	1.15	3.94	5.11	9.94	4.69	6.30	2.77	4.30	1.93	3.34	1.25	2.52	0.73	1.77	
30.....	1.23	4.55	1.46	4.77	1.48	4.84	5.42	10.69	4.97	6.99	3.04	4.68	2.12	3.57	1.40	2.72	0.87	1.97	
35.....	1.74	5.83	2.10	6.15	2.14	6.26	5.95	11.87	5.51	8.07	3.46	5.25	2.42	4.00	1.69	3.04	1.07	2.21	
40.....	2.47	7.46	2.95	7.92	3.07	8.09	6.87	13.47	6.30	9.41	4.18	6.12	2.98	4.60	2.12	3.50	1.43	2.54	
45.....	3.43	9.87	4.02	10.43	4.12	10.68	8.13	16.00	7.39	11.61	5.02	7.29	3.86	5.53	2.80	4.18	1.92	3.07	
50.....	4.67	12.85	5.51	13.70	5.68	14.13	9.89	20.17	8.84	14.69	6.18	9.46	4.87	7.00	3.57	5.25	2.51	3.98	
55.....	6.32	16.92	7.45	18.11	7.72	18.76	12.02	24.44	10.80	18.16	7.57	11.97	6.09	8.82	4.54	6.58	3.23	4.96	
60.....	8.61	21.54	10.19	23.23	10.61	24.18	14.44	28.22	12.97	21.78	9.33	14.49	7.42	10.95	5.71	8.22	4.04	6.02	
65.....	12.48	27.41	14.36	29.72	15.05	31.13	17.02	31.98	16.09	25.38	11.43	16.96	9.09	13.03	7.25	9.74	5.21	7.11	
70.....	17.35	33.88	19.74	36.93	20.78	38.89	19.67	34.94	18.42	28.02	14.01	19.46	11.24	14.76	9.10	11.12	6.59	8.14	
75.....	23.41	41.20	26.56	45.06	28.15	47.77	22.65	38.09	20.71	31.01	16.35	21.79	13.80	16.42	11.24	12.42	8.22	9.20	

TABLE 4—Continued

SEX AND AGE	BASIC COST, 150 UNITS DEDUCTIBLE						ADD TO BASIC COST TO REDUCE DEDUCTIBLE TO UNITS STATED												
	150/1,000		150/3,000		150/Unlim.		10		20		40		60		80		100		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Women:																			
15.....	0.33	3.51	0.34	3.56	0.35	3.61	6.84	11.26	5.40	7.31	3.51	5.06	2.16	3.97	1.26	3.02	0.66	2.11	
20.....	0.45	4.79	0.46	4.89	0.47	4.94	8.44	14.19	6.63	9.19	4.50	6.21	2.84	4.84	1.69	3.17	0.89	2.44	
25.....	0.75	6.38	0.76	6.50	0.77	6.59	10.04	17.12	7.91	11.20	5.49	7.33	3.60	5.63	2.25	4.22	1.27	2.97	
30.....	1.18	8.65	1.19	8.79	1.20	8.91	11.59	19.76	9.22	13.33	6.47	8.44	4.43	6.39	2.91	5.01	1.77	3.67	
35.....	1.79	11.27	1.82	11.59	1.84	11.78	13.07	22.33	10.45	15.68	7.48	9.74	5.28	7.22	3.59	5.84	2.29	4.40	
40.....	2.41	13.87	2.42	14.25	2.46	14.48	14.64	25.03	11.69	17.73	8.53	11.04	6.25	8.09	4.31	6.51	2.83	5.05	
45.....	2.95	16.30	2.98	16.86	3.05	17.19	15.90	28.36	12.73	19.57	9.46	12.47	6.93	9.18	4.94	7.23	3.20	5.54	
50.....	3.50	18.65	3.57	19.29	3.66	19.75	16.96	31.70	13.73	21.88	10.25	14.11	7.65	10.74	5.48	8.27	3.58	6.18	
55.....	4.23	20.61	4.32	21.38	4.44	21.93	17.52	33.60	14.37	24.37	11.01	16.03	8.22	12.27	5.88	9.42	3.93	6.98	
60.....	5.52	22.91	5.65	24.09	5.80	24.74	18.51	34.97	15.39	26.60	11.75	18.12	8.94	13.60	6.47	10.74	4.27	7.79	
65.....	8.35	27.30	8.59	29.45	8.85	30.34	20.49	35.62	17.24	28.81	13.17	19.78	10.44	14.98	7.74	11.56	5.15	8.38	
70.....	13.03	33.77	13.57	36.76	14.03	38.01	23.21	37.72	19.71	30.57	16.13	20.78	12.66	15.86	9.78	12.04	6.64	8.71	
75.....	17.39	39.83	18.04	43.13	18.76	44.87	25.72	39.52	23.18	32.14	19.30	21.83	16.01	16.57	12.49	12.31	8.92	8.99	
Children.....	0.28	1.56	0.31	1.59	0.33	1.62	4.11	10.40	2.95	6.76	1.60	4.54	0.89	3.31	0.45	2.31	0.26	1.50	

**TABLE 5**  
**SELECT PERIOD FACTORS**

DURATION	Issue Age				
	25	35	45	55	65
<b>I. Factors Applicable to 100-Unit Deductible</b>					
<b>Men:</b>					
0.....	48.6%	47.8%	46.3%	43.8%	39.8%
1.....	66.2	65.6	64.5	62.7	59.7
2.....	82.8	82.4	81.7	80.5	78.5
3.....	91.5	91.3	91.0	89.5	88.6
4.....	97.2	97.1	96.9	96.6	96.1
5 and over.	100.0	100.0	100.0	100.0	100.0
<b>Women:</b>					
0.....	40.0	38.8	36.8	36.3	37.1
1.....	80.0	79.2	77.8	77.6	78.1
2.....	90.0	89.5	88.6	88.7	89.0
3.....	94.3	94.0	93.5	93.6	93.8
4.....	98.5	98.4	98.2	98.2	98.3
5 and over.	100.0	100.0	100.0	100.0	100.0
<b>II. Factors Applicable to 20-Unit Deductible</b>					
<b>Men:</b>					
0.....	62.5%	61.9%	60.9%	59.1%	55.8%
1.....	78.0	77.6	76.8	75.4	71.8
2.....	86.4	86.1	85.5	84.5	82.8
3.....	92.6	92.4	92.0	91.3	90.2
4.....	97.7	97.6	97.4	97.0	96.4
5 and over.	100.0	100.0	100.0	100.0	100.0
<b>Women:</b>					
0.....	57.3	56.5	55.0	54.8	55.9
1.....	83.4	82.8	81.7	81.7	82.5
2.....	91.5	91.1	90.4	90.5	91.0
3.....	96.5	96.3	95.9	96.1	96.4
4.....	99.0	98.9	98.7	98.7	98.8
5 and over.	100.0	100.0	100.0	100.0	100.0

**TABLE 5—Continued**

Duration	Factors Applicable to 100-Unit Deductible	Factors Applicable to 20-Unit Deductible
<b>Children (either sex):</b>		
0.....	64.0%	74.0%
1.....	81.0	86.0
2.....	88.0	92.0
3.....	94.0	96.0
4.....	98.0	99.0
5 and over...	100.0	100.0

