

TRANSACTIONS OF SOCIETY OF ACTUARIES 1969 REPORTS

V. GROUP LONG-TERM DISABILITY INSURANCE

THIS report extends last year's study of the morbidity experience based on number of lives under plans with a six-month elimination period by (1) adding another year's experience to Table 1 rates of disablement, (2) adding one more year's duration to Table D-1 termination rates, (3) analyzing Table D-1 combined male and female termination rates for each of the first two years of disablement by month of disablement, and (4) expanding Table D-2 to show ratios of actual terminations to expected terminations (per 1964 Commissioners Disability Table) for each disablement year and age cell included in Table D-1.

The experience is predominantly that of employer-employee groups located in the United States and largely for plans which appear not to have been the result of bargaining. Groups which a contributing company considers atypical or classifies as substandard because of industry hazards are excluded. Plans selected for the study provide occupational as well as nonoccupational coverage but with benefits integrated with workmen's compensation. Virtually all the cases contributed also provide that gross monthly benefits be integrated with some or all of any social security benefits and frequently other benefits payable as a result of the disability. Benefits are payable only on claims incurred prior to age 65 and generally cease at age 65.

The Committee wishes to point out that this study is still in the course of development and that the experience covers a period of favorable economic conditions and generally high employment; hence, the results presented here should be viewed only as early indications of expected rates of disablement or termination. Since a considerable volume of exposures could not be coded with respect to certain characteristics which may influence the level of rate of disablement or termination, the experience may not be representative of any particular group or plan. The Committee recommends that caution be used in either the interpretation of the results or in their application on other than a broad basis.

Contributing Companies

Thirteen companies have contributed to the investigation for calendar years of experience 1962, 1963, 1964, 1965, 1966, and 1967 covered in this report. The results are the composite experience of variations in company practices and in the underlying administration and claim procedures, as well as of variations in experience among groups.

Aetna Life Insurance Company
 Bankers Life & Casualty Company
 Bankers Life Company
 Connecticut General Life Insurance Company
 Continental Assurance Company
 Continental Casualty Company
 Equitable Life Assurance Society
 John Hancock Mutual Life Insurance Company
 Metropolitan Life Insurance Company
 New York Life Insurance Company
 Provident Life & Accident Insurance Company
 Prudential Insurance Company of America
 Sun Life Assurance Company of Canada

Analysis of Rates of Disablement

Table 1 shows crude rates of disablement based on number of lives, by sex and age group, for the period 1962-67 for plans with a six-month elimination period. Experience of the calendar year of issue is excluded. Over one-half of the exposure contributed could not be separated by sex. The first part of this table summarizes the experience for male, female, and the sex-unknown exposure combined. The experience for which exposure was sex-coded is presented in the bottom two sections of the table. Attention is called to the small number of claims underlying the disablement rate for some of the sex-age cells.

Experience varied considerably among contributors, most of which based the definition of disability at commencement of benefits on the claimant's "own occupation." Approximately 10 per cent of the experience, however, is based on an "any occupation" definition for the full period of disability.

Claims were reported and included in rates of disablement even though, because of the existence of social security or other disability income under plans with an offset provision, no benefit may have been payable.

Accidents accounted for 11 per cent of the claims coded for a known cause of disablement.

In the course of preparing and validating contributions to the active lives experience for this year's report, certain errors in prior years' contributions were uncovered. Since the corrected crude rates of disablement for the period 1962-66 are sufficiently different from those originally published, the Committee felt that the correct rates should be made available. Consequently, the corrected rates for this prior period are included in Table 1 of this year's report.

Any analytical comparison of rates of disablement for "all ages" com-

TABLE 1
 GROUP LONG-TERM DISABILITY INSURANCE
 CRUDE RATES OF DISABLEMENT
 PER 1,000 LIVES EXPOSED
 (Six-Month Elimination Period; Calendar
 Year of Issue Excluded;
 Calendar Years of Experience 1962-67)

ATTAINED AGE	LIFE YEARS EXPOSED, 1962-67	No. CLAIMS, 1962-67	RATE OF DISABLEMENT PER 1,000 LIVES	
			1962-67	1962-66
All Experience: Males, Females, and Sex Unknown				
Under 40.....	539,321	481	0.89	0.96
40-44.....	166,188	367	2.21	2.42
45-49.....	140,527	510	3.63	3.81
50-54.....	105,058	607	5.78	5.83
55-59.....	75,061	716	9.54	9.07
60-64.....	45,254	619	13.68	12.48
All ages.....	1,071,409	3,300	3.08	3.06
Male Experience Only				
Under 40.....	173,952	119	0.68	0.75
40-44.....	61,457	84	1.37	1.53
45-49.....	51,856	146	2.82	2.55
50-54.....	38,457	182	4.73	4.67
55-59.....	28,537	229	8.02	7.12
60-64.....	16,132	214	13.27	12.38
All ages.....	370,391	974	2.63	2.54
Female Experience Only				
Under 40.....	37,556	51	1.36	1.35
40-44.....	10,967	36	3.28	3.24
45-49.....	9,862	57	5.78	5.56
50-54.....	7,811	40	5.12	4.94
55-59.....	5,759	41	7.12	8.10
60-64.....	2,949	36	12.21	8.56
All ages.....	74,904	261	3.48	3.35

TABLE D-1
 GROUP LONG-TERM DISABILITY INSURANCE
 CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED
 TO DEATH OR RECOVERY
 (Six-Month Elimination Period; Calendar Years of Experience 1962-67)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
	Male and Female Combined					
7th month.....	72.1	58.6	62.7	40.3	27.4	18.9
8th month.....	72.9	71.9	72.2	54.1	29.9	19.2
9th month.....	71.2	75.0	73.8	52.3	26.5	18.2
10th month.....	62.6	57.9	59.3	44.9	25.6	15.2
11th month.....	56.6	47.7	50.3	39.8	23.0	18.2
12th month.....	50.7	50.5	50.6	40.6	18.0	17.7
1st year (last 6 months).....	329.2	311.5	316.9	243.0	141.5	102.6
13th month.....	55.8	49.3	51.2	38.4	18.6	13.4
14th month.....	69.4	35.9	45.4	35.0	19.5	11.2
15th month.....	41.5*	39.3	40.3	31.8	15.8	16.2
16th month.....	21.5*	35.5	31.8	24.2	13.4	15.5
17th month.....	46.1	15.1*	23.7	17.7	14.5	10.3
18th month.....	42.7*	9.3*	18.5	18.8	16.8	12.1
19th month.....	34.7*	14.7*	20.0*	18.7	15.6	13.0
20th month.....	45.2*	10.0*	18.9*	19.1	14.6	12.2
21st month.....	31.9*	11.4*	16.5	23.1	14.9	13.2
22nd month.....	26.3*	26.7	26.6	16.8	13.8	10.5*
23rd month.....	17.9*	21.9*	20.8*	7.8*	8.0*	7.7*
24th month.....	9.8*	24.2	20.4	14.4	2.9*	8.3*
2d year.....	364.2	257.7	288.1	236.0	156.0	134.5
3d year.....	261.4	202.2	219.6	159.9	145.1	133.1
4th year.....	†	†	†	152.5	135.8	†
	Male Only					
1st year (last 6 months).....	390.7	312.2	336.4	234.0	128.3	105.6
2d year.....	376.5	264.0	296.1	219.0	161.6	131.6
3d year.....	†	180.4	198.0	163.2	144.1	129.6
4th year.....	†	†	†	149.2	118.2	†
	Female Only					
1st year (last 6 months).....	225.2	310.6	286.1	257.8	185.6	85.7
2d year.....	345.5	250.5	277.6	265.0	137.0	153.7
3d year.....	†	228.4	247.4	154.0	148.7	†
4th year.....	†	†	†	†	195.3	†

* Involves fewer than five terminations.
 † Involves fewer than ten terminations.

bined should recognize differences, if any, in distributions of exposures by age groups.

Analysis of Rates of Termination

Table D-1 shows crude rates of termination from death or recovery based on number of lives, by sex and age groups, for the period 1962-67 for plans with a six-month elimination period.

Annual rates of termination were not calculated for any experience cell for which there were fewer than ten terminations. Because of the small number of terminations at the later durations, the experience has been truncated at the end of four years of disablement. It should be noted that the termination rates for the first year of disablement relate to the six-month period following the end of the elimination period.

Table D-1A identifies the actual number of terminations which have occurred during the period of observation.

TABLE D-1A
GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Six-Month Elimination Period; Calendar Years of Experience 1962-67)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
	Male and Female Combined					
1st year (last 6 months) . . .	75	168	243	324	324	118
2d year	37	63	100	155	203	79
3d year	10	21	31	47	92	30
4th year	1	4	5	19	33	3
	Male Only					
1st year (last 6 months) . . .	55	100	155	197	225	103
2d year	23	37	60	89	165	66
3d year	5	10	15	30	72	25
4th year	0	3	3	11	21	3
	Female Only					
1st year (last 6 months) . . .	20	68	88	127	99	15
2d year	14	26	40	66	38	13
3d year	5	11	16	17	20	5
4th year	1	1	2	8	12	0

The claims exposed to termination included 3,300 claims reported in Table 1 supplemented by 3,713 claims on experience units which were not included in the development of rates of disablement. The Committee separately analyzed the termination rates only for those claims which were included in the rates of disablement study and found no significant difference in the results.

TABLE D-2
GROUP LONG-TERM DISABILITY INSURANCE
RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR
RECOVERY TO NUMBERS OF TERMINATIONS EXPECTED FROM THE
1964 COMMISSIONERS DISABILITY TABLE*
(Six-Month Elimination Period; Calendar Years of Experience 1962-67)

DURATION OF DISABLEMENT	ALL AGES OF Dis- ABLE- MENT Com- BINED	AGE AT DISABLEMENT					
		Under 30	30-39	Under 40	40-49	50-59	60-64
Male and female com- bined:							
1st year (last 6 months)	43.4	61.3	60.0	60.4	51.7	36.7	30.1
2d year	95.2	113.8	93.5	99.6	100.1	89.2	97.8
3d year	105.6	111.1	99.4	102.8	99.1	108.7	110.5
4th year	111.7	†	†	†	123.2	128.4	†
Male only:							
1st year (last 6 months)	40.8	72.8	60.2	64.0	49.8	33.3	30.9
2d year	94.5	117.7	95.8	102.2	92.9	92.4	95.7
3d year	104.5	†	88.7	92.1	101.1	108.0	107.6
4th year	103.5	†	†	†	120.6	111.7	†
Female only:							
1st year (last 6 months)	49.7	41.9	59.8	54.4	54.9	48.1	25.1
2d year	97.1	108.0	90.9	96.2	112.4	78.4	111.8
3d year	107.8	†	112.3	116.0	95.4	111.5	†
4th year	129.2	†	†	†	†	184.6	†

* As published by the Health Insurance Association of America, Table B1, Volume III.

† Involves fewer than ten terminations.

Table D-2 presents ratios of the actual terminations used in the development of Table D-1 to the number of terminations which would have been produced by application of termination rates from the 1964 Commissioners Disability Table to the Table D-1 exposure. The low ratios in the first year may be due to the shorter elimination periods of the individual health insurance experience underlying the first-year termination rates of the Commissioners Disability Table.