TRANSACTIONS OF SOCIETY OF ACTUARIES 1982 REPORTS

I. GROUP WEEKLY INDEMNITY INSURANCE

This is the thirty-fifth annual report on the continuing study of the morbidity experience under contracts providing for Group Weekly Indemnity insurance. In compiling this report, the Committee has included the available experience of employer/employee groups and has excluded the experience of trusteeships and association cases insuring employees of the member employers and the experience of union cases, whether or not insurance depends upon continued employment. The experience of plans written under State Cash Sickness Laws and the experience of insured groups outside the United States also have been excluded.

RATIO OF ACTUAL TO TABULAR CLAIMS

Experience in this report is presented in the form of ratios of actual to tabular claims. In the reports prior to the last one, the tabular claims used were those derived from the 1947–49 weekly indemnity nonmaternity tabulars and 40 percent of the 1947–49 weekly indemnity maternity tabulars. Last year's report was the first one to show experience for plans with full maternity benefits. The maternity experience in prior reports was limited to plans providing a six-week benefit period. Last year's report had separate exhibits for plans with full maternity benefits and plans with six-week maternity benefits. This report includes only experience for plans with full maternity benefits.

The three years' worth of full maternity experience that is currently available shows actual-to-tabular ratios of about 100 percent when compared with 100 percent of the 1947–49 weekly indemnity maternity tabulars. For this reason, 100 percent of the weekly indemnity tabulars was used for all plans with full maternity benefits.

Caution must be used in interpreting the data contained in this report because, among other reasons, the 1947–49 tabulars may not reflect accurately the current claim patterns. The tabulars also do not reflect certain factors, such as age distribution, industry classification, or size of case, that may have a relevant effect on the experience results.

CONTRIBUTING COMPANIES

The Committee wishes to express its gratitude to the companies that generously contributed data to this study. The report contains experience for the years 1977, 1978, 1979, 1980, and 1981. Six companies contributed

data for some or all of these years. The results generally reflect the composite effect of variations in company practice in administration and claim procedures, as well as variations in experience among groups.

The majority of companies contribute exposures and claims based upon policy years ending in the calendar year designated. If the renewal dates for all cases included in the study were distributed uniformly over the year, then the central point of exposure for each policy year would be approximately January 1 of that year. However, this assumption may not be very precise because of a concentration of policy renewals in January and July.

The following companies contributed experience for the study:

Aetna Life Insurance Company Connecticut General Life Insurance Company The Hartford Insurance Group Metropolitan Life Insurance Company Occidental Life Insurance Company of California Prudential Insurance Company of America

ANALYSIS OF EXPERIENCE

The Pregnancy Discrimination Act of 1978, an amendment to Title VII of the Civil Rights Act of 1964, was effective April 29, 1979. This legislation imposed the requirement on all groups with fifteen or more lives that in any benefit program, pregnancy-related disabilities must be treated the same as disabilities caused or contributed to by any other medical conditions.

The impact of the legislation was shown in this report for the first time last year. Experience under plans providing full benefits for pregnancyrelated disabilities included in the 1979 experience contribution was withheld from the 1980 report. However, it was included last year, along with 1980 experience for plans with full pregnancy disability benefits. The current report contains experience for three years for plans with full pregnancy disability benefits.

In analyzing the various tables, the reader should note that the 1979 experience may have been affected by the federal maternity legislation. Some companies had difficulty in complying with the special maternity coding requirements for that year.

Table 1 shows the experience for the period 1979-81 for each of eight plans (four different elimination periods; two different maximum benefit periods), all of which provide a full maternity benefit. All size groups are included.

Experience of nonjumbo groups only (units with less than 1,000 insured employees) is displayed in Table 2 for each of four plan combinations for plans with full maternity benefits. For those nonjumbo units for which the data were available, Table 2 separates the combined experience into its nonmaternity and maternity segments. Also included in Table 2 for each of the four plan combinations is the nonjumbo experience for the period 1979–81 of plans that do not provide a maternity benefit.

Table 3 is a three-year trend analysis of the Table 2 experience for each year 1979–81 inclusive. Care should be exercised in analyzing the yearby-year experience because the 1979 experience may have been affected by the federal maternity legislation. Also, the 1981 contribution contains very little experience in the nonmaternity and maternity separate category and in the no-maternity category.

Table 4 is an analysis of experience by size of experience unit. Results are shown separately for plans with and without maternity benefits. Experience of plans with full maternity benefits only is shown.

Table 5 analyzes the nonjumbo experience of plans with no maternity benefits by the female percentage composition of the experience units. The tabular claim costs used to calculate ratios are shown in Table 6. They are based on 100 percent of the 1947–49 weekly indemnity tabulars.

Table 1 is directly comparable to last year's Table 1A because it contains plans with full maternity benefits only. It includes more than three times as many experience units and more than two and one-half times as much exposure as last year. Results are similar by plan to last year's results, and the ratio for all plans combined improved from 112 percent to 108 percent. The actual-to-tabular ratio for twenty-six-week plans is higher than that for thirteen-week plans. This was true last year and has been the case for six-week maternity plans for the past several years; however, the difference has narrowed from last year. Fourth-day accident, fourthday sickness plans again show the highest ratios of the four elimination periods, especially for thirteen-week plans.

Table 2 is comparable to Table 2A in last year's report. It shows that results for plans with no maternity benefits were not quite as stable as in past years due to the fact that the amount of experience has decreased substantially, to less than half of that included last year. Thirteen-week plans continued to have worse results than twenty-six-week plans, although results for all four combinations of elimination and benefit periods showed improvement over last year. The experience for plans with maternity benefits improved over last year's experience in all four categories, especially for the twenty-six-week plans. The ratios are still quite high for fourth-day sickness, twenty-six-week plans, as a result of poor nonmaternity experience. There is the same relationship of higher ratios for twenty-six-week plans than for thirteen-week plans as there has been in the past, but the difference has narrowed, especially for nonmaternity experience. Maternity results show a slight improvement for thirteenweek plans and a significant improvement for twenty-six-week plans. The amount of combined experience in this report is about three times as large as that in last year's report, and the amount of separate experience is about twice as large.

The results in Table 3 continue to show that the nonmaternity experience under plans with maternity benefits is worse than the experience of plans with no maternity benefits. The ratios for 1979 and 1980 tend to be fairly similar for all categories, but 1981 ratios are considerably lower in all categories. The volatile swings from year to year are partially due to very little exposure in some of the categories. Specifically, the 1981 nonmaternity and maternity separate experience contains less than 9 percent of the total exposure in that category for the three-year period. Also, the 1981 experience for plans with no maternity benefits contains only about 15 percent of the total exposure in that category for the three-year period. The 1979 results for plans with no maternity benefits differ from those on last year's Table 3A because corrections were made this year that removed from the nonmaternity experience some units that had been miscoded. The 1980 results for nonmaternity and maternity combined differ from those on last year's Table 3B because we were able to include additional 1980 experience this year.

A comparison of Table 4 results for plans with maternity benefits to last year's Table 4A results shows a similar trend of ratios by size of group except for the smallest cases. For nonjumbo plans with maternity benefits, there is a pattern of experience that worsens as the size of the group increases. Significant improvement occurred in all nonjumbo size categories, especially for cases with fewer than 50 lives. Jumbo results worsened only slightly. For plans with no maternity benefits, results have improved for all nonjumbo categories except 50–99-life cases, which showed only slight deterioration. Jumbo experience showed a significant deterioration; however, there is very little experience in this category, so wide fluctuations from year to year should be expected.

Table 5 does not show any general pattern of ratios by percentage of female content; however, all ratios improved from last year's except those for groups with between 81 and 100 percent female content. In past reports, there was a general tendency for the ratios to increase as the female percentage increased, for groups with between 11 and 70 percent female

content. The number of experience units and the amount of exposure in each of the female percentage categories, now less than half of last year's amount, has decreased to the point where the results are no longer very credible.

TABLE 1

GROUP WEEKLY INDEMNITY EXPERIENCE with Full Maternity Benefit All Size Groups Combined 1979–81 Policy Years' Experience, by Plan tabular claims = 1947–49 weekly indemnity tabulars

Plan	No. Experience Units	Weekly Indemnity Exposed* (000)	Actual Claims including Maternity (000)	Ratio of Actual to 1947–49 Weekly Indemnity Tabular
1-4-13. 4-4-13. 1-8-13. 8-8-13.		2.746 758 25,057 10,735	2,323 1,171 18,237 4,838	1.02 1.96 1.04 .70
Total, 13-week plans	2,140	39,296	26,569	.97
1-4-26. 4-4-26. 1-8-26. 8-8-26.		33,315 1,979 73,363 29,601	37,805 2,320 67,735 21,290	1.25 1.30 1.13 .83
Total, 26-week plans	4,770	138,258	129,150	1.10
Total, all plans	6,910	177,554	155,719	1.08

* Weekly Indemnity Exposed is reported in units of \$10 of weekly indemnity in-force.

GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED 1979–81 Policy Years' Experience, by Plan

TABULAR CLAIMS =	1947-49 WEEKLY	INDEMNITY	LABULARS
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	NONMATER	NITY AND MATER	nty Combined E	XPERIENCI.*		NONMAL	ERNITY AND M2	CERNITY SEPAR	rate Experie	NCE*	
PLAN	No. Weekly Ac	Actual	Ratio of Actual to	No	Weekly	Actual Claims		Ratio of Actual to 1947–49 Weekly Indemnity Tabular			
	Experience Units	Indemnity Exposed (000)	Claims (000)	1947–49 Weekly Indemnity Tabular	Experience Units	Indemnity Exposed (000)	Non- maternity (000)	Maternity (000)	Non- maternity	Maternity	Combined
					Plans with Fu	ll Maternity Ben	efit		·		•
13-week: 4th-day sickness 8th-day sickness	263 1,819	2,470 20,194	2.077 14,899	1.15 1.08	206 1,151	2.012 13,180	1,588 9,312	130 897	1.20	.98 .80	1.18 1.16
Total	2.082	22,664	16,976	1.09	1.357	15,192	10,900	1,027	1.21	.82	1.16
26-week: 4th-day sickness 8th-day sickness	785 3,800	15,819 58,165	20,217 49,729	1.41 1.07	542 2,227	11,362 35,897	14,082 29,297	739 2,010	1.51	.89	1.46
Total	4,585	73,984	69,946	1.15	2,769	47.259	43,379	2,749	1.25	.90	1.22
				1	Plans with N	o Maternity Bene		4	· · · · · · · · · · · · · · · · · · ·	<u>ــــــــــــــــــــــــــــــــــــ</u>	-
13-week: 4th-day sickness 8th-day sickness			• • • • • • • • • • • • • •		34 456	424 4,110	253 2,408		.91 1.01		
Total					490	4,534	2,661		1.00		
26-week: 4th-day sickness 8th-day sickness					70 1,018	1,429 10,443	680 7.099		.61 .94		
Total					1,088	11,872	7,779	1	.90		

* The separate experience exposure is less than the combined experience exposure because separate experience is not available for all groups.

GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED 1979–81 Policy Years' Experience, by Plan

PLAN	RATIOS OF ACTUAL TO 1947–49 TABULAR FOR POLICY YEAR ENDING IN:				
	1979	1980	1981		
	Plans v	ith Full Maternity	Benefit		
Nonmaternity and maternity combined experience: 13-week:					
4th-day sickness	1.13 1.13	1.25 1.14	.96 .95		
Total	1.13	1.16	.95		
26-week: 4th-day sickness 8th-day sickness	1.54 1.13	1.39 1.12	1.31 .99		
Total	1.24	1.18	1.05		
Nonmaternity and maternity separate experience:* Nonmaternity: 13-week:					
4th-day sickness 8th-day sickness	1.14 1.24	1.31 1.23	.69 .95		
Total	1.22	1.24	.92		
26-week: 4th-day sickness 8th-day sickness	1.61 1.15	1.47 1.23	1.12 .80		
Total	1.27	1.30	.84		
Maternity (all plans)	.67	1.00	.87		
Combined: 13-week: 4th-day sickness 8th-day sickness	1.10 1.18	1.29 1.18	.87 .94		
Total.	1.16	1.20	.93		
26-week: 4th-day sickness 8th-day sickness	1.54 1.12	1.43 1.22	1.16 .79		
Total	1.23	1.28	.84		
Γ	Plans	with No Maternity	Benefit		
13-week: 4th-day sickness 8th-day sickness	1.06	.80 1.06	.80 .77		
Total	1.04	1.04	.77		
26-week: 4th-day sickness 8th-day sickness	.48 1.01	1.13 .92	.35 .75		
Total	.92	.94	.73		

TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY TABULARS

* The nonmaternity and maternity separate experience is also included in the nonmaternity and maternity combined experience.

GROUP WEEKLY INDEMNITY EXPERIENCE All Size Groups Combined 1979–81 Policy Years' Experience, by Size of Experience, Unit

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TABULAR CLAIMS	 1947-49 WEEKLY	INDEMNIEY	LABLEARS

Size	No Experience Units	Weekty Indemnity Exposed (100)	Actual Claims including Maternity (000)	Ratio of Actual le 1947 - 49 Weekly Indemnity Fabular	
	Plans with Full Maternity Benefit				
<50 lives 50–99 100–249 250–499 500–999	1,859 1,668 1,928 823 389	4.828 11.224 28.912 26.858 24.826	3,630 8,303 23,831 25,811 25,346	.98 .98 1.07 1.22 1.25	
Total <1,000	6,667	96,648	86.921	1.15	
,000 or more	243	80,906	68.798	1.00	
Grand total	6,910	177,554	155.719	1.08	
μ		Plans with No N	fatermity Benefit		
<50 lives	669 351 340 155 63	1,601 2,208 4,378 4,275 3,944	720 1.334 3.085 2.948 2.353	.65 .90 1.03 1.00 .84	
Total <1,000	1,578	16,406	10.440	.92	
,000 or more	21	2,642	2.172	1.17	
Grand total	1,599	19,048	12,612	.96	

GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED 1979–81 Policy Years' Experience, by Female Percent Plans with No Maternity Benefit, All Benefit Periods Combined Nonmaternity tabular claims = 1947-49 weekly

INDEMNITY NONMATERNITY TABULARS

Female Percent	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims (000)	Ratio of Actual to 1947–49 Weekly Indemnity Tabular
Less than 11%	. 630	6,510	3,982	.95
11-21%	. 248	2,443	1.324	.85
21-31%	. 191	1,889	981	.76
31-41%	. 121	1,248	906	1.00
41-51%	. 108	1,002	647	.92
51-61%		1,204	780	.82
61-71%	. 68	939	937	1.25
71-81%		661	479	.87
81-91%		386	307	1.00
91-100%	. 39	124	97	.92
Total	1,578	16,406	10,440	.92

TABLE 6

TABULAR CLAIM COSTS USED TO CALCULATE RATIOS 1947-49 WEEKLY INDEMNITY TABULAR*

ANNUAL CLAIM COSTS PER \$10 WEEKLY BENEFIT

Plan	Male	Female (with Maternity Benefit)	Female (with No Maternity Benefit)
1-4-13	\$5.77	\$13.09	\$ 9.67
4-4-13	5.69	12.91	9.49
1-8-13	4.99	11.40	7.98
8-8-13	4.81	11.01	7.59
1-4-26	7.32	14.56	11.14
4-4-26	7.23	14.37	10.95
1-8-26	6.50	12.81	9.39
8-8-26	6.31	12.41	8.99

* A description of the development of the tabular factors from Morton D. Miller's paper "Group Weekly Indemnity Continuation Table Study." *TSA*, Vol. III, can be found in the *1962 Reports*.