# TRANSACTIONS OF SOCIETY OF ACTUARIES 1972 REPORTS

### I. GROUP WEEKLY INDEMNITY INSURANCE

This is the twenty-fifth annual report on the continuing study of the morbidity experience of 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 trusteeship 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 and Canada have been excluded. The United States experience and the Canadian experience have been reported separately.

### RATIO OF ACTUAL TO TABULAR CLAIMS

Throughout this report experience is presented in the form of ratios of actual to tabular claims, based on the 1947-49 weekly indemnity tabulars, as reported in the 1962 Reports. Caution must be used in interpreting the data contained in this report because, among other reasons, the 1947-49 tabulars may not accurately reflect current claim patterns. The maternity tabulars do not reflect the substantial decline in birth rates in recent years, with the result that the actual-to-tabular ratios for maternity benefits are generally somewhere near 50 per cent, while the actual-to-tabular ratios for nonmaternity benefits are generally near 100 per cent or even higher; this wide difference is concealed and may create distortions when the experience for maternity and that for nonmaternity are combined. The tabulars also do not reflect certain factors, such as age distribution, industry classification, or size of case, which 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. Data for the three most recent policy years were contributed by ten companies, and data for earlier policy years were available for one additional company. The results reflect the composite effect of variations in company practice in administration and claim procedures, as well as variations in experience among groups.

This report contains experience for years labeled 1967, 1968, 1969, 1970, and 1971. The majority of the 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 the 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 this study:

Aetna Life Insurance Company
Connecticut General Life Insurance Company
Continental Assurance Company
Equitable Life Assurance Society
John Hancock Mutual Life Insurance Company
Metropolitan Life Insurance Company
The Mutual Life Assurance Company of Canada
Occidental Life Insurance Company of California
Prudential Insurance Company of America
Sun Life Assurance Company of Canada
The Travelers Insurance Company

### ANALYSIS OF EXPERIENCE

Table 1 shows the experience for the latest three policy years combined, including all size groups, for plans that include a six-week maternity benefit. Table 2 shows separate experience for maternity and non-maternity benefits, for the three latest policy years combined, for non-jumbo groups (groups containing 1,000 or more insured employees are excluded). Table 3 displays the ratios of actual to tabular claims on nonjumbo groups for each of the last five years. Table 4 shows the experience by size of case.

It is difficult to conclude from these data that there is any significant difference between the levels of experience in the United States and the levels of experience in Canada. The ratios of actual to tabular for Canadian experience are generally higher than the United States experience ratios for plans written with no maternity benefits, and lower for plans written with maternity benefits.

Perhaps the most interesting trend indicated by the current study is the increasing difference between ratios of actual to tabular for thirteenweek plans as compared to twenty-six-week plans. Table 3 shows that in both the United States and Canada the 1971 ratios for thirteen-week plans are generally lower than the corresponding ratios for 1969 and 1970, while the 1971 ratios for twenty-six-week plans are generally higher than

TABLE 1
GROUP WEEKLY INDEMNITY EXPERIENCE
PLANS WITH SIX WEEKS' MATERNITY BENEFIT
ALL SIZE GROUPS

# COMBINED 1969-71 POLICY YEARS' EXPERIENCE, BY PLAN

| Plan                                     | No.<br>Experience<br>Units | Weekly<br>Indemnity<br>Exposed<br>(000) | Actual<br>Claims<br>Including<br>Maternity<br>(000) | Ratio of<br>Actual to<br>1947-49<br>Weekly<br>Indemnity<br>Tabular |
|--|----------------------------|---|---|--|
|  |                            | United State                            | s Experience  | <u> </u>   |
| 1-4-13.<br>4-4-13.<br>1-8-13.<br>8-8-13. | 875<br>276<br>3,187<br>619 | 4,593<br>1,450<br>18,855<br>5,030       | 3,168<br>782<br>13,904<br>3,492                     | 97%<br>83<br>112<br>103  |
| Total, 13-week plans                     | 4,957                      | 29,928                                  | 21,346  | 107%   |
| 1-4-26.<br>4-4-26.<br>1-8-26.<br>8-8-26. | 370<br>55<br>2,164<br>307  | 5,615<br>794<br>30,730<br>8,693         | 6,264<br>764<br>31,405<br>5,672                     | 137%<br>117<br>135<br>90   |
| Total, 26-week plans                     | 2,896                      | 45,832                                  | 44,105  | 127%   |
| Total, all plans                         | 7,853                      | 75,760                                  | 65,451  | 119%   |
|  | ,                          |   |   |  |
| 1-4-13.<br>4-4-13.<br>1-8-13.<br>8-8-13. | 122<br>18<br>1,027<br>21   | 383<br>47<br>1,423<br>36                | 299<br>32<br>842<br>22                              | 114%<br>98*<br>98<br>102*  |
| Total, 13-week plans                     | 1,188                      | 1,889                                   | 1,195   | 101%   |
| 1-4-26.<br>4-4-26.<br>1-8-26.<br>8-8-26. | 152<br>7<br>383<br>28      | 859<br>82<br>2,051<br>124               | 925<br>56<br>2,007<br>65                            | 131%<br>90<br>137<br>72  |
| Total, 26-week plans                     | 570                        | 3,116                                   | 3,053   | 131%   |
| Total, all plans                         | 1,758                      | 5,005                                   | 4,248   | 121%   |

<sup>\*</sup>Less than \$50,000 of actual claims.

TABLE 2

# GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED 1969-71 POLICY YEARS' EXPERIENCE, BY PLAN

### UNITED STATES EXPERIENCE

|  | No                         | Nonmaternity and Maternity<br>Combined Experience* |                 |   | Nonmaternity and Maternity Separate Experience* |   |                            |  |  |           |             |  |
|--|----------------------------|--|-----------------|---|---|---|----------------------------|--|--|-----------|-------------|--|
| PLAN E   |                            | Weekly   | Actual          | Ratio of<br>Actual to                     | No.<br>Experience<br>Units                      | Weekly<br>Indemnity<br>Exposed<br>(000) | Actual Claims              |  | Ratio of Actual to 1947–49<br>Weekly Indemnity Tabular |           |             |  |
|  | No.<br>Experience<br>Units | Indemnity<br>Expased<br>(000)                      | Claims<br>(000) | 1947-49<br>Weekly<br>Indemnity<br>Tabular |   |   | Non-<br>maternity<br>(000) | Maternity (000)                              | Non-<br>maternity                                      | Maternity | Combined    |  |
|  |                            |  |                 | 1   | Plans with 6                                    | Weeks' Mate                             | ernity Benefit             | t  | <u> </u>   |           |             |  |
| 13-week:<br>4th-day sickness.<br>8th-day sickness. | 1,138<br>3,724             | 4,883<br>19,792                                    | 3,181<br>14,181 | 94%<br>109                                | 858<br>2,378                                    | 3,686<br>13,086                         | 2,494<br>8,860             | 95<br>595                                    | 105%<br>118  | 45%<br>51 | 100%<br>109 |  |
| Total  | 4,862                      | 24,675   | 17,362          | 106%                                      | 3,236   | 16,772                                  | 11,354                     | 690  | 115%   | 50%       | 107%        |  |
| 26-week:<br>4th-day sickness<br>8th-day sickness   | 404<br>2,363               | 4,414<br>21,679                                    | 4,346<br>19,807 | 118%<br>120                               | 288<br>1,428                                    | 2,838<br>14,095                         | 2,762<br>12,898            | 61<br>457                                    | 124%<br>130  | 42%<br>49 | 119%<br>123 |  |
| Total  | 2,767                      | 26,093   | 24,153          | 120%                                      | 1,716   | 16,933                                  | 15,660                     | 518  | 129%   | 48%       | 122%        |  |
|  |                            |  |                 | <u> </u>                                  | Plans with                                      | No Materni                              | ty Benefits                | <u>'                                    </u> |  | <u>`</u>  | ·           |  |
| 13-week:<br>4th-day sickness<br>8th-day sickness   |                            |  |                 |   | 476<br>6,703                                    | 3,073<br>29,153                         | 2,086<br>17,747            |  | 103%<br>104  |           |             |  |
| Total  |                            |  |                 |   | 7,179   | 32,226                                  | 19,833                     |  | 104%   |           |             |  |
| 26-week:<br>4th-day sickness<br>8th-day sickness   |                            |  |                 |   | 380<br>6,609                                    | 3,645<br>32,599                         | 2,898<br>22,847            |  | 97%<br>99  |           | 1           |  |
| Total  |                            |  |                 |   | 6,989   | 36,244                                  | 25,745                     |  | 99%  |           |             |  |

<sup>\*</sup> The separate experience exposure is less than the combined experience exposure because separate experience is not available for all groups.

TABLE 2—Continued
CANADIAN EXPERIENCE

|  | Nonmaternity and Maternity<br>Combined Experience* |                     |                 |                                  | Nonmaternity and Maternity<br>Separate Experience* |                     |                            |                    |   |             |             |
|--|--|---------------------|-----------------|----------------------------------|--|---------------------|----------------------------|--------------------|---|-------------|-------------|
| Plan   |  | Weekly<br>Indemnity |                 | Ratio of<br>Actual to<br>1947-49 | No.<br>Experience<br>Units                         | Weekly<br>Indemnity | Actual                     | Claims             | Ratio of Actual to 1947-<br>Weekly Indemnity Tabu |             |             |
|  | Experience<br>Units                                | Exposed (000)       | Claims<br>(000) | Weekly<br>Indemnity<br>Tabular   |  | Exposed<br>(000)    | Non-<br>maternity<br>(000) | Maternity<br>(000) | Non-<br>maternity                                 | Maternity   | Combined    |
|  |  | ·                   | ·               | <u> </u>                         | Plans with 6                                       | Weeks' Mat          | ernity Benefi              | t                  | ·   | ·           | <u>'</u>    |
| 13-week:<br>4th-day sickness<br>8th-day sickness | 140<br>1,048                                       | 430<br>1,459        | 331<br>864      | 113%                             | 132<br>963   | 380<br>1,276        | 287<br>719                 | 6<br>26            | 118%<br>103                                       | 31%†<br>36† | 111%        |
| Total  | 1,188  | 1,889               | 1,195           | 101%                             | 1,095  | 1,656               | 1,006                      | 32                 | 107%  | 35%†        | 101%        |
| 26-week:<br>4th-day sickness<br>8th-day sickness | 158<br>405   | 871<br>1,634        | 950<br>1,439    | 133%<br>122                      | 137<br>328   | 726<br>989          | 750<br>779                 | 19<br>23           | 132%<br>114                                       | 55%†<br>43† | 127%<br>108 |
| Total  | 563  | 2,505               | 2,389           | 126%                             | 465  | 1,715               | 1,529                      | 42                 | 122%  | 47%†        | 117%        |
|  |  | <u> </u>            | <u> </u>        | !                                | Plans with   | No Materni          | ty Benefits                | <u>'</u>           |   |             | <u> </u>    |
| 13-week:<br>4th-day sickness<br>8th-day sickness |  |                     |                 |                                  | 103<br>946   | 327<br>1,903        | 244<br>1,236               |                    | 115%<br>115                                       |             |             |
| Total  |  |                     |                 |                                  | 1,049  | 2,230               | 1,480                      |                    | 115%  |             |             |
| 26-week:<br>4th-day sickness<br>8th-day sickness |  |                     |                 |                                  | 148<br>860   | 507<br>2,273        | 524<br>1,632               |                    |   |             |             |
| Total  |  |                     |                 |                                  | 1,008  | 2,780               | 2,156                      |                    | 108%  |             |             |

<sup>\*</sup> The separate experience exposure is less than the combined experience exposure because separate experience is not available for all groups. † Less than \$50,000 of actual claims.

### TABLE 3—GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED 1967-71 POLICY YEARS' EXPERIENCE, BY PLAN UNITED STATES

| Plan  | RATIOS OF ACTUAL TO 1947-49 TABULAR<br>FOR POLICY YEAR ENDING IN: |             |             |             |             |  |  |  |  |
|---|---|-------------|-------------|-------------|-------------|--|--|--|--|
| ,   | 1967  | 1968        | 1969        | 1970        | 1971        |  |  |  |  |
|   | Plans with 6 Weeks' Maternity Benefit                             |             |             |             |             |  |  |  |  |
| Nonmaternity and maternity combined experience: 13-week:                |   |             |             |             |             |  |  |  |  |
| 4th-day sickness  | 84%<br>96   | 92%<br>102  | 97%<br>109  | 94%<br>112  | 92%<br>108  |  |  |  |  |
| Total   | 93%   | 100%        | 106%        | 108%        | 105%        |  |  |  |  |
| 26-week: 4th-day sickness   | 100%<br>107   | 112%<br>110 | 113%<br>121 | 118%<br>118 | 124%<br>122 |  |  |  |  |
| Total   | 106%  | 111%        | 119%        | 118%        | 122°°       |  |  |  |  |
| Nonmaternity and maternity separate experience:* Nonmaternity: 13-week: | 0167  | 10007       | 1000        | 1000        | 0001        |  |  |  |  |
| 4th-day sickness  | 91%<br>104  | 102%<br>110 | 109%<br>120 | 106%<br>121 | 99%<br>113  |  |  |  |  |
| Total   | 101%  | 108%        | 118%        | 117 $\%$    | 110%        |  |  |  |  |
| 26-week: 4th-day sickness 8th-day sickness                              | 106%<br>115   | 118%<br>123 | 118%<br>130 | 120%<br>127 | 134%<br>133 |  |  |  |  |
| Total   | 113%  | 122%        | 127%        | 125%        | 133%        |  |  |  |  |
| Maternity (all plans)   | 48%   | 51%         | 46%         | 51%         | 51%         |  |  |  |  |
| Combined: 13-week: 4th-day sickness 8th-day sickness                    | 87%<br>97   | 97%<br>102  | 104%<br>110 | 100%<br>112 | 96%<br>106  |  |  |  |  |
| Total   | 94%   | 101%        | 109%        | 109%        | 103%        |  |  |  |  |
| 26-week: 4th-day sickness 8th-day sickness                              | 103%<br>110   | 115%<br>117 | 114%<br>123 | 115%<br>120 | 128%<br>126 |  |  |  |  |
| Total   | 108%  | 117%        | 121%        | 119%        | 126%        |  |  |  |  |
| -   | Plans with No Maternity Benefits                                  |             |             |             |             |  |  |  |  |
| 13-week:<br>4th-day sickness<br>8th-day sickness                        | 90%<br>98   | 99%         | 99%<br>105  | 107%<br>105 | 102%<br>102 |  |  |  |  |
| Total   | 97%   | 102%        | 105%        | 106%        | 102%        |  |  |  |  |
| 26-week:<br>4th-day sickness  | 84%<br>89   | 80%<br>91   | 103%<br>97  | 91%<br>94   | 94%<br>105  |  |  |  |  |
| Total   | 88%   | 90%         | 98%         | 94%         | 103%        |  |  |  |  |

<sup>\*</sup> The nonmaternity and maternity separate experience is also included in the nonmaternity and maternity combined experience.

# TABLE 3-Continued

### CANADA

| PLAN  | RATIO OF ACTUAL TO 1947-49 TABULAR<br>FOR POLICY YEAR ENDING IN: |             |             |             |                 |  |  |  |  |
|---|--|-------------|-------------|-------------|-----------------|--|--|--|--|
|   | 1967   | 1968        | 1969        | 1970        | 1971            |  |  |  |  |
|   | Plans with 6 Weeks' Maternity Benefit                            |             |             |             |                 |  |  |  |  |
| Nonmaternity and maternity combined experience: 13-week:                |  |             |             |             |                 |  |  |  |  |
| 4th-day sickness 8th-day sickness                                       | 120%<br>101  | 99%<br>106  | 103%<br>100 | 128%<br>95  | $^{113\%}_{98}$ |  |  |  |  |
| Total   | 106%   | 104%        | 101%        | 103%        | 101%            |  |  |  |  |
| 26-week:<br>4th-day sickness<br>8th-day sickness                        | 107%<br>116  | 111%<br>91  | 128%<br>103 | 140%<br>126 | 130%<br>142     |  |  |  |  |
| Total   | 112%   | 100%        | 111%        | 131%        | 137%            |  |  |  |  |
| Nonmaternity and maternity separate experience:* Nonmaternity: 13-week: |  |             |             |             |                 |  |  |  |  |
| 4th-day sickness<br>8th-day sickness                                    | $\frac{124\%}{100}$  | 105%<br>111 | 112%<br>109 | 132%<br>102 | 114%<br>97      |  |  |  |  |
| Total   | 106%   | 109%        | 110%        | 109%        | 100%            |  |  |  |  |
| 26-week: 4th-day sickness 8th-day sickness                              | 108%<br>101  | 111%<br>79  | 132%<br>103 | 135%<br>111 | 128%<br>130     |  |  |  |  |
| Total   | 104%   | 95%         | 115%        | 122%        | 129%            |  |  |  |  |
| Maternity (all plans)   | 42%†   | 35%†        | 34%†        | 52%†        | 40%             |  |  |  |  |
| Combined: 13-week: 4th-day sickness 8th-day sickness                    | 118%<br>94   | 99%<br>104  | 104%<br>102 | 125%<br>97  | 111%<br>90      |  |  |  |  |
| Total   | 101%   | 102%        | 102%        | 104%        | 95%             |  |  |  |  |
| 26-week: 4th-day sickness 8th-day sickness                              | 107%<br>98   | 108%<br>75  | 127%<br>99  | 130%<br>108 | 125%<br>122     |  |  |  |  |
| Total   | 102%   | 91%         | 109%        | 118%        | 124%            |  |  |  |  |
|   | Plans with No Maternity Benefits                                 |             |             |             |                 |  |  |  |  |
| 13-week:<br>4th-day sickness  | 113%<br>99   | 100%<br>96  | 122%<br>109 | 118%<br>123 | 104%<br>113     |  |  |  |  |
| Total   | 101%   | 97%         | 111%        | 122%        | 112%            |  |  |  |  |
| 26-week:<br>4th-day sickness<br>8th-day sickness                        | 109%<br>85   | 101%<br>84  | 100%<br>105 | 124%<br>105 | 145%<br>98      |  |  |  |  |
| Total   | 89%  | 87%         | 104%        | 108%        | 110%            |  |  |  |  |

 $<sup>^*</sup>$  The nonmaternity and maternity separate experience is also included in the nonmaternity and maternity combined experience.

<sup>†</sup> Less than \$50,000 of actual claims.

TABLE 4—GROUP WEEKLY INDEMNITY EXPERIENCE
ALL SIZE GROUPS
COMBINED 1969-71 POLICY YEARS' EXPERIENCE, BY SIZE OF EXPERIENCE UNIT

|  | PLANS                                 | with 6 Weeks'                                | MATERNITY BE:  | KEFIT  | PLANS WITH NO MATERNITY BENEFIT       |   |   |   |  |  |
|--|---------------------------------------|--|--|--|---------------------------------------|---|---|---|--|--|
| Size   | No.<br>Experience<br>Units            | Weekly<br>Indemnity<br>Exposed<br>(000)      | Actual<br>Claims<br>Includ-<br>ing<br>Maternity<br>(000) | Ratio of<br>Actual to<br>1947–49<br>Weekly<br>Indemnity<br>Tabular | No.<br>Experience<br>Units            | Weekly<br>Indemnity<br>Exposed<br>(000)       | Actual<br>Claims<br>(000)                   | Ratio of Actual to 1947-49 Weekly Indemnity Tabular |  |  |
|  |                                       | United States Experience                     |  |  |                                       |   |   |   |  |  |
| <50 lives<br>50-99<br>100-249<br>250-499<br>500-999      | 2,385<br>2,030<br>1,946<br>854<br>414 | 2,908<br>6,466<br>14,659<br>13,532<br>13,204 | 1,811<br>4,070<br>11,528<br>11,520<br>12,586             | 91%<br>91<br>110<br>117<br>129                                     | 6,542<br>3,588<br>2,752<br>907<br>380 | 9,839<br>12,194<br>20,134<br>14,439<br>11,865 | 5,623<br>7,381<br>13,893<br>10,028<br>8,653 | 89%<br>94<br>106<br>104<br>107                      |  |  |
| Total <1,000   | 7,629                                 | 50,769                                       | 41,515   | 114%   | 14,169                                | 68,471  | 45,578                                      | 101%  |  |  |
| 1,000 or more  | 224                                   | 24,990                                       | 23,935   | 131%   | 200                                   | 21,727  | 17,648                                      | 113%  |  |  |
| Grand total  | 7,853                                 | 75,759                                       | 65,450   | 119%   | 14,369                                | 90,198  | 63,226                                      | 104%  |  |  |
|  | Canadian Experience                   |  |  |  |                                       |   |   |   |  |  |
| <50 lives.<br>50–99.<br>100–249.<br>250–499.<br>500–999. | 1,281<br>240<br>159<br>57<br>14       | 1,092<br>733<br>1,232<br>842<br>494          | 566<br>554<br>1,026<br>876<br>561                        | 80%<br>110<br>116<br>142<br>153                                    | 1,566<br>274<br>147<br>51<br>19       | 1,524<br>918<br>920<br>1,021<br>627           | 890<br>600<br>758<br>749<br>638             | 90%<br>100<br>124<br>112<br>155                     |  |  |
| Total <1,000   | 1,751                                 | 4,393  | 3,583  | 116%   | 2,057                                 | 5,010   | 3,635                                       | 111%  |  |  |
| 1,000 or more  | 7                                     | 611  | 664  | 157%   | 22                                    | 20,326  | 20,601                                      | 129%  |  |  |
| Grand total  | 1,758                                 | 5,004  | 4,247  | 121%   | 2,079                                 | 25,336  | 24,236                                      | 126%  |  |  |

at any time in the past. This divergence is more extreme for plans with six weeks of maternity benefits than for plans with no maternity benefits.

It is interesting to note that the ratios of actual to tabular claims for plans with no maternity benefits seem to be generally lower than the corresponding ratios for nonmaternity benefits that are written along with maternity benefits. Table 3 shows that this phenomenon has existed for several years and continues to exist for each category except for thirteen-week plans in the Canadian experience. This difference may be due to differences in age, industry, size of group, or other characteristics that are not reflected in the tabular claims.

Table 4 shows an unmistakable pattern of increasing ratios with increase in size of group, for both United States and Canadian experience.