## TRANSACTIONS OF SOCIETY OF ACTUARIES 1962 VOL. 14 PT. 2

## D416 DISCUSSION OF SUBJECTS OF SPECIAL INTEREST

Senior Citizens' Policies

- A. What has been the recent experience with respect to claims, expense, and persistency under policies issued to persons age 65 or over (a) individually underwritten or (b) underwritten through mass enrollment?
- B. How does the experience under these policies compare with that for persons under age 65? Does the experience indicate the need for special restrictions or limitations in policies being offered to senior citizens?
- C. What lessons have been learned with respect to mass enrollment offers? May such experiments be regarded as a practical alternative to compulsory government health insurance plans?

MR. RICHARD W. ERDENBERGER: We are working on a study at Mutual of Omaha covering hospital and surgical claims, and presented here are tables of some ungraduated statistics therefrom (Tables 1-3). Claims are those incurred in 1960 and paid in 1960 and 1961. Exposures are the mean of 1959 and 1960 year-end in-force figures. Mass enrollment data are from a single series, of a guaranteed renewable type. Individually underwritten data are from two comparable guaranteed renewable series.

Age shown in the tables represents 1960 minus year of birth. Mass enrollment data are only for 1959 issues, while individually underwritten data are shown separately for 1958 and 1959 issues and for 1954–57 issues combined. The average claims under the surgical study have been adjusted in accordance with the procedures now being used by the Society's Individual Health Insurance Committee so that they may be compared with other schedules.

Hospital frequencies on individually underwritten business show a fairly steady upward progression by age group for each year of issue. For males, the 1958 issues show about 110 per cent of the frequency of the 1959 issues, and the 1954–57 issues about the same relationship to the 1958 issues. Female ratios are not so clear. The year of issue trend reflects aging, health deterioration, and anti-selection on renewal. There may be no such thing as an "ultimate" point.

Mass enrollment covers only one year of issue, so no trends by duration are available. For comparable age groups and years of issue, the male hospital frequency on mass enrollment is about 230 per cent of that on the individually underwritten, the female ratio being about 200 per cent.

Average duration of hospital confinement also increases by age and duration similar to the frequencies. Ratios of mass enrollment experience to individually underwritten vary from 150 per cent at ages 65–69 to about 125 per cent at ages 80 and over. Females show better experience under age 60 but above 60 are about 10 per cent worse.

Females show higher surgical frequencies and average benefits than

males below age 60 but lower above age 60. Ratio of surgical benefits under mass enrollment to the individually underwritten is about 135 per cent.

We are optimistic that our commissions, machine-handling, and other mass-handling techniques are keeping expenses below the loading in our premiums.

TABLE 1
HOSPITAL CLAIMS INCURRED IN 1960, PAID IN 1960 AND 1961, BY YEAR OF ISSUE

	Male					FEMALE				
Ags	Mass Enroll- ment	Individu	ıally Unde	erwritten	Agz	Mass Enroll- ment	Individu	ally Under	written	
	1959	1954-57	1958	1959		1959	1954-57	1958	1959	
	·	Frequ	iency	·			Frequency			
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74	252	.085 .082 .093 .101 .127 .143 .157 .161 .168 .185	.066 .082 .093 .099 .118 .128 .144 .146 .161 .164	.067 .070 .076 .090 .097 .108 .127 .117 .117 .145	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79	.226	.073 .115 .138 .157 .148 .159 .155 .152 .172 .167 .209	.102 .133 .131 .139 .143 .148 .133 .148 .132 .157	.103 .121 .128 .149 .144 .134 .119 .138 .115	
80 and over	.449	.276			80 and over.	.361	.335			
		Duration	(Days)				Duration	(Days)		
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	17.97 18.08 18.28	7.20 5.79 8.19 10.37 9.11 10.35 10.80 13.75 12.30 13.81 16.87 17.80	6.89 5.97 7.38 7.22 8.88 9.86 11.17 12.43 11.81 13.37 15.81	5.72 5.75 6.67 9.01 8.46 9.81 10.18 11.53 11.63 12.22 13.25	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	18.67 18.77 20.51	5.99 6.02 7.26 7.68 8.43 8.95 9.64 11.17 12.70 14.21 17.73 18.63	6.18 6.50 6.45 7.54 7.76 8.68 9.92 10.34 11.94 14.03 16.59	5.22 5.47 7.19 7.07 7.36 8.22 8.99 10.16 10.22 12.93 13.51	
	Exposures (Lives)						Exposures (Lives)			
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	4,530 5,933 4,467	4,709 5,024 4,714 4,702 5,728 7,225 8,367 9,713 9,552 11,031 7,268 663	3,440 2,573 2,318 2,360 2,889 3,517 4,087 4,389 5,197 4,802 2,544 14	3,883 2,967 2,505 2,603 3,148 3,739 4,105 3,915 4,896 3,365 975 8	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over		5,246 5,241 5,476 6,600 9,140 12,504 15,424 20,249 17,143 17,823 11,429 1,082	3,154 2,572 2,729 3,268 4,438 5,965 7,446 9,085 8,596 6,963 3,432	3,459 2,969 2,975 3,875 4,949 6,566 7,928 8,122 8,276 5,573 1,436	
Total	18,749	78,696	38,130	31,213	Total	34,728	129,387	57,659	41,648	

Mass enrollment business is lapsing at just under 1 per cent a month, including deaths, with little variation by duration including the first year. Individually underwritten business shows a first-year annual rate between 15 and 20 per cent, grading down to about 5 per cent in the tenth and subsequent years.

Experience on mass enrollment business shows no particular need for

 ${\it TABLE~2} \\ {\it Surgical Claims Incurred in~1960, Paid in~1960 and 1961, by Year of Issue}$ 

		MALE				FEMALE			
Age	Mass Enroll- ment	Individu	ıally Unde	erwritten	Ace	Mass Enroll- ment	Individu	ally Under	written
	1959	1954-57	1958	1959		1959	1954–57	1958	1959
	Frequency				Frequency				
25-29. 30-34. 35-39. 40-44. 45-49. 50-54. 55-59. 60-64. 65-69. 70-74. 75-79.	. 135 .176 .170	.097 .093 .095 .095 .104 .113 .116 .112 .113 .119 .125	.076 .092 .097 .096 .100 .104 .107 .109 .117 .104	.082 .084 .071 .088 .082 .084 .094 .096 .093 .093	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79		068 108 131 133 118 118 114 105 118 102	.103 .121 .124 .125 .120 .114 .111 .114 .098 .115	.104 .130 .120 .116 .118 .115 .098 .109 .088 .099 .118
80 and over	. 180		e Claim		80 and over .	.133	.205 Average	Claim	
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	\$90.77 89.77 94.74	\$35.59 30.20 38.27 43.42 50.66 61.47 66.46 83.84 89.16 88.96 92.78 80.47	\$30.93 39.71 37.78 40.21 45.97 56.97 61.21 76.96 87.57 84.57 99.40	\$30.82 26.92 39.75 43.21 48.76 58.85 59.66 73.57 70.29 90.15 81.49	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over		\$43.70 46.03 49.41 63.03 58.11 61.98 62.99 69.31 70.83 70.22 71.85 71.34	\$41.36 54.77 54.54 60.88 60.37 66.53 62.10 70.17 61.62 67.25 67.04	\$36.16 45.06 50.08 63.39 65.03 57.50 56.29 68.27 63.85 66.08 67.55
		Exposure	es (Lives)				Exposures	(Lives)	<u>'</u>
25-29 30-34 35-39 40-41 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	4,530 5,933 4,467 3,819	5,013 6,380 7,268 8,425 8,031 8,756 5,471 513	3,210 2,338 2,077 2,071 2,554 3,069 3,584 3,817 4,244 3,719 1,916 11	3,560 2,623 2,186 2,296 2,727 3,216 3,498 3,212 4,024 2,603 765 5	25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80 and over	7,913 10,323 8,731 7,761	4,838 4,691 4,867 5,807 8,028 10,871 13,321 17,080 15,370 13,374 8,120 752	2,894 2,331 2,436 2,862 3,925 5,216 6,368 7,583 6,770 5,124 2,436	3,137 2,513 2,621 3,408 4,336 5,700 6,740 6,664 6,633 4,264 1,093
Total	18,749	67,098	32,610	30,715	Total	34,728	107,119	47,954	47,116

special restrictions or limitations, except so far as they are used to keep the price attractive. For the senior citizens who can afford it, more benefits are readily available.

The age distribution of each enrollment must be tested to see if there has been any significant change, since a single rate is charged for all ages and costs increase by age. Table 3, showing age distribution in our enrollment compared to the 1960 United States Census figures, makes it apparent that our premiums would have been inadequate if claim costs for each age had been used in conjunction with the census data.

We have learned that there was a huge, relatively untapped, market for this coverage offered by mass enrollments. We now consider this business an integral part of our regular business and believe that compulsory government health insurance is not a practical alternative to it.

	Seri	es A	Series B		
Age	1959 First	1962 First	1959 First	1960 United	
	Enrollment	Enrollment	Enrollment	States Census	
65-69	25.9%	25.6%	25.8%	37.8%	
70-74	29.8	29.2	29.2	28.6	
75-79	24.0	24.1	23.2	18.4	
80-84	13.7	13.9	14.3	9.5	
85 and over	6.6	7.2	7.5	5.7	
Total	100.0%	100.0%	100.0%	100.0%	

TABLE 3

AGE DISTRIBUTION OF MASS ENROLLMENTS

MR. JAMES J. OLSEN: Prudential's lifetime guaranteed renewable hospital policies at senior ages are individually underwritten. The following figures compare our 1960 experience thereon with the 1956 Intercompany Hospital and Surgical Expense Tables, and are for males and females combined, ages 65 and older. The net level cost is about the same for males and females.

The frequency of in-patient hospitalization is approximately 75 per cent of the expected the first year, 85 per cent the second year, increasing about 5 per cent each year to 100 per cent in the fifth year. In the absence of experience beyond that, we believe it will continue to increase until perhaps it reaches 150 per cent.

The average duration of hospital stay for a 35-day maximum has been about 80 per cent of the expected for the 90-day maximum of the tables, the average being the same for all policy durations.

The average in-patient claim for miscellaneous hospital expense, with \$120 maximum, has been about 95 per cent of the expected, the average being the same for all policy durations. For a large maximum benefit we would expect the average claim to increase considerably by duration.

The actual frequency of surgery has been the same as expected, the frequency not varying by policy duration.

Average surgical claim was 117 per cent of expected, the average payment not varying by policy duration.

Over-all annual lapse rate over 65 has been about 7 per cent. With death rates being about 5 per cent, most lapses must be by death.

MR. WALTER M. FOODY: Our "65-plus" applicants at the Continental Casualty Company include a higher percentage of females than the United States population 65 and over, and our proportion of such applicants who are at the older ages is slightly greater than found in the United States population 65 and over.

The annual claim rate of hospitalization is 0.2535, compared to 0.1718 when 1956 Intercompany values are applied to the distribution of insureds. Corresponding rates of surgery are 0.1411 and 0.0983.

Lapse rates from first-month coverage vary from 2.5 to 4.5 per cent, then drop to from 0.5 to 2.0 per cent. Over half the lapses are due to deaths.

We consider that insurance taken out during the individuals' working years, which does not terminate at some age limit, is the proper alternative to compulsory government health plans. The absence of funding in the mass enrollment approach limits its usefulness. It should be regarded as a complementary means to maintaining the voluntary system.

MR. ROBERT C. TOOKEY: I obtained my information from the three big companies that write this coverage on a national basis. All these comments concern "mass enrollment" only.

Regarding A, claim experience will usually stabilize within two years following enrollment. The decrease of claims following any heavy initial incidence of claims due to anti-selection seems to be more than offset by the increasing claims by age as the group ages. One company reports a loss ratio in excess of 80 per cent.

Experience seems to be better in larger cities where hospitals can keep their patients only a limited time and where the patients' friends find it inconvenient to visit them.

<sup>1</sup> This discussion by Mr. Foody, vice-president of the Continental Casualty Company and a member of the National Advisory Committee for the White House Conference on Aging, was presented by Mr. Maynard I. Kagen.

Since in the future more people who would otherwise be prospects for mass enrollment coverage will have group medical coverage continuing after retirement, this particular group will become closed, and the loss ratio will inevitably go up. Therefore, companies are probably planning to put most of any initial profits into special reserve for future losses.

Persistency is much better than on individually underwritten business, despite the higher death rate, possibly because the insureds had to make some effort to get the coverage and because there is little competition with replacements.

Expenses are quite low, much of the work being done on electronic machinery. Average company selling costs vary from under 5 per cent to over 18 per cent of first-year premium, depending on how much enrollment assistance is rendered by the agents.

Regarding B, there is less tendency toward abuse and repeated use of hospital facilities by senior citizens than by younger lives. However, duplication of coverage is a real problem, with one company reporting numerous claimants with two, three, and even four policies. Perhaps the only policy restriction needed would be an anti-duplication clause.

In Georgia when a company terminates an individual A&S policy, it must refund 75 per cent of the excess of accumulated premiums over claims. Thus it is unprofitable to use policies with good experience to subsidize those with poor experience, if the former block of policies is later terminated. In North Carolina up to two years' notice must be given before terminating an individual A&S policy. Loss ratios increase too steeply on older lives to make it practical to anticipate renewal action by two years.

Regarding C, mass enrollment procedures appear to work quite well, simply taking every applicant and getting a good spread. Enrollment periods vary from 20 to 45 days, with newspaper advertisements and selected mailing lists being the most common media of announcement. One company has over a million lives covered, and this certainly implies that it is a practical alternative to compulsory government health insurance programs.